

TRAFFIC STUDY MEMORANDUM FOR

DYERSVILLE, IOWA

Prepared for:
City of Dyersville, IA
2025

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Iowa.



Eric J. Tott, P.E. PTOE

01-20-25

Date

19992

License. No.



engineers + planners + land surveyors

Travel Demand Forecast Model - Project Description

The City of Dyersville, Iowa plans to construct three new bridges in the city to provide alternate routes for local traffic to alleviate traffic congestion, create a grade-separated crossing of the railroad, reduce vehicle-pedestrian conflicts, improve emergency service response times, and mitigate the effects of road closures during flood events.

Since 2019, WHKS has utilized traffic data from multiple sources (see below) to create, calibrate, and update a city-wide traffic model. This model has been used to analyze and evaluate the traffic flow impacts of the proposed projects. The traffic model was used to compare the effects of several scenarios including; no build, partial build, and full build. WHKS also performed a crash analysis to determine potential reduction in accidents.

This traffic memorandum has been prepared for the City of Dyersville, Iowa to present the results of the traffic modeling and crash analysis performed to date.

Traffic Data

In 2019, WHKS utilized cell phone-based traffic data from Streetlytics modified using Iowa DOT traffic counts to create and calibrate a city-wide traffic model. Since 2019, WHKS has gathered additional traffic data (local traffic counts, updated DOT counts, and Replica data) and updated the model to 2024.

The growth factor used for the future traffic was 1% per year. Using a 1% compound growth factor, the traffic count volumes were factored up to obtain design year (2054) volumes.

The intersection at 7th St and 1st Ave was modeled as a roundabout. All other existing lane configurations, speed limits, and intersection control was used in the models.

Traffic Model

The traffic analyses were done using the procedures outlined in the *Highway Capacity Manual 6th Edition* (HCM), the model was generated in Synchro Studio 11 with SimTraffic 11.

The model included the major routes through the city. The following scenarios were analyzed:

1. Opening year (2025):
 - A. Existing conditions (no-build scenario)
 - B. With proposed bridges/roadways
 - C. With 7th Street (NS) bridge only
 - D. With 12th Street (EW) bridge only
2. Design Year (2054)
 - A. Existing conditions (no-build scenario)
 - B. With proposed bridges/roadways
 - C. With 7th Street (NS) bridge only
 - D. With 12th Street (EW) bridge only

Analysis Results

Vehicle Hours Traveled (VHT) and Vehicle Miles Traveled (VMT) analysis results are shown in the tables below. See Attachment B for the output reports from Synchro. The reports are run for peak hour. Daily values are assumed to be 10 times the values for peak hour.

Table 1 - Vehicle Hours Traveled (VHT) Results

VEHICLE HOURS TRAVELED					PEAK HOUR				DAILY			
					SENSITIVITY RANGE		SAVINGS RANGE		SENSITIVITY RANGE		SAVINGS RANGE	
					LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)
	SCENARIO		TOTAL HOURS		+15%	-15%			+15%	-15%		
EXISTING	1A		101.5		86.3	116.7			862.8	1167.3		
BOTH	1B		94.8	6.6%	80.6	109.0	5.7	7.7	805.8	1090.2	56.9	77.1
NS	1C		101.2	0.3%	86.0	116.4	0.3	0.3	860.2	1163.8	2.5	3.4
EW	1D		97.6	3.8%	83.0	112.2	3.3	4.5	829.6	1122.4	33.2	44.9
EXISTING	2A		131.48		111.8	151.2			1117.6	1512.0		
BOTH	2B		118.56	9.8%	100.8	136.3	11.0	14.9	1007.8	1363.4	109.8	148.6
NS	2C		126.35	3.9%	107.4	145.3	4.4	5.9	1074.0	1453.0	43.6	59.0
EW	2D		122.07	7.2%	103.8	140.4	8.0	10.8	1037.6	1403.8	80.0	108.2

Table 2 - Vehicle Miles Traveled (VMT) Results

VEHICLE MILES TRAVELED					PEAK HOUR				DAILY			
					SENSITIVITY RANGE		SAVINGS RANGE		SENSITIVITY RANGE		SAVINGS RANGE	
					LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)	LOW (HR)	HIGH (HR)
	SCENARIO		TOTAL MILES		+15%	-15%			+15%	-15%		
EXISTING	1A		2841		2414.9	3267.2			24148.5	32671.5		
BOTH	1B		2560	9.9%	2176.0	2944.0	238.9	323.2	21760.0	29440.0	2388.5	3231.5
NS	1C		2833	0.3%	2408.1	3258.0	6.8	9.2	24080.5	32579.5	68.0	92.0
EW	1D		2635	7.3%	2239.8	3030.3	175.1	236.9	22397.5	30302.5	1751.0	2369.0
EXISTING	2A		3550		3017.5	4082.5			30175.0	40825.0		
BOTH	2B		3201	9.8%	2720.9	3681.2	296.7	401.4	27208.5	36811.5	2966.5	4013.5
NS	2C		3538	0.3%	3007.3	4068.7	10.2	13.8	30073.0	40687.0	102.0	138.0
EW	2D		3296	7.2%	2801.6	3790.4	215.9	292.1	28016.0	37904.0	2159.0	2921.0

Crash Analysis

The crash analysis performed for this study included crashes from 2015 to 2020 for the entire city. See Attachment C for crash data. 186 crashes occurred within the analyzed timeframe. See the table below for a summary.

Crash Severity	186	Injury Status Summary	46
Fatal Crash	0	Fatalities	0
Suspected Serious Injury Crash	2	Suspected serious/incapacitating	2
Suspected Minor Injury Crash	11	Suspected minor/non-incapacitating	12
Possible/Unknown Injury Crash	25	Possible (complaint of pain/injury)	30
Property Damage Only	148	Unknown	2

Property/Vehicles/Occupants	Average Severity
Property Damage Total (dollars): 1,074,088.00	Fatalities/Fatal Crash: 0.00
Average (per crash dollars): 5,774.67	Fatalities/Crash: 0.00
Total Vehicles: 332.00	Injuries/Crash: 0.24
Average (per crash): 1.78	Major Injuries/Crash: 0.01
Total Occupants: 395.00	Minor Injuries/Crash: 0.06
Average (per crash): 2.15	Possible/Unknown Injuries/Crash: 0.16

Based on the vehicle miles saved in the traffic model analysis, the reduction in crashes will be approximately 10% if both bridges are constructed.

Crash rates, for intersections, for segments between intersections, and for corridors which would include intersections, are regularly used to “predict” future crash performance of a Community. Basic statistics tell us that, in Iowa, there is an average near 0.9 crashes per million vehicles entering an intersection. This average is substantially accurate regardless of whether the intersection is rural or urban, for all types of control (signals, stops, yields, or uncontrolled), high or low speed approaches, high or low traffic volumes, etc. On the extremes, there are isolated intersections that operate at a crash rate of as low as 0.25 or so; a very high crash location may reach a crash rate in the 1.25-1.30 range.

Concerning costs of injuries, the Iowa DOT uses the following economic values of crash-related injuries:

- Fatal injury \$4,500,000
- Serious Injury \$325,000
- Minor Injury \$65,000
- Possible/Unknown Injury \$35,000.

These values reflect the societal costs of an injury, reflecting costs of medical care, loss to the economy of the individual’s productivity, etc. It’s fair to consider these injury-related costs in the grant application.

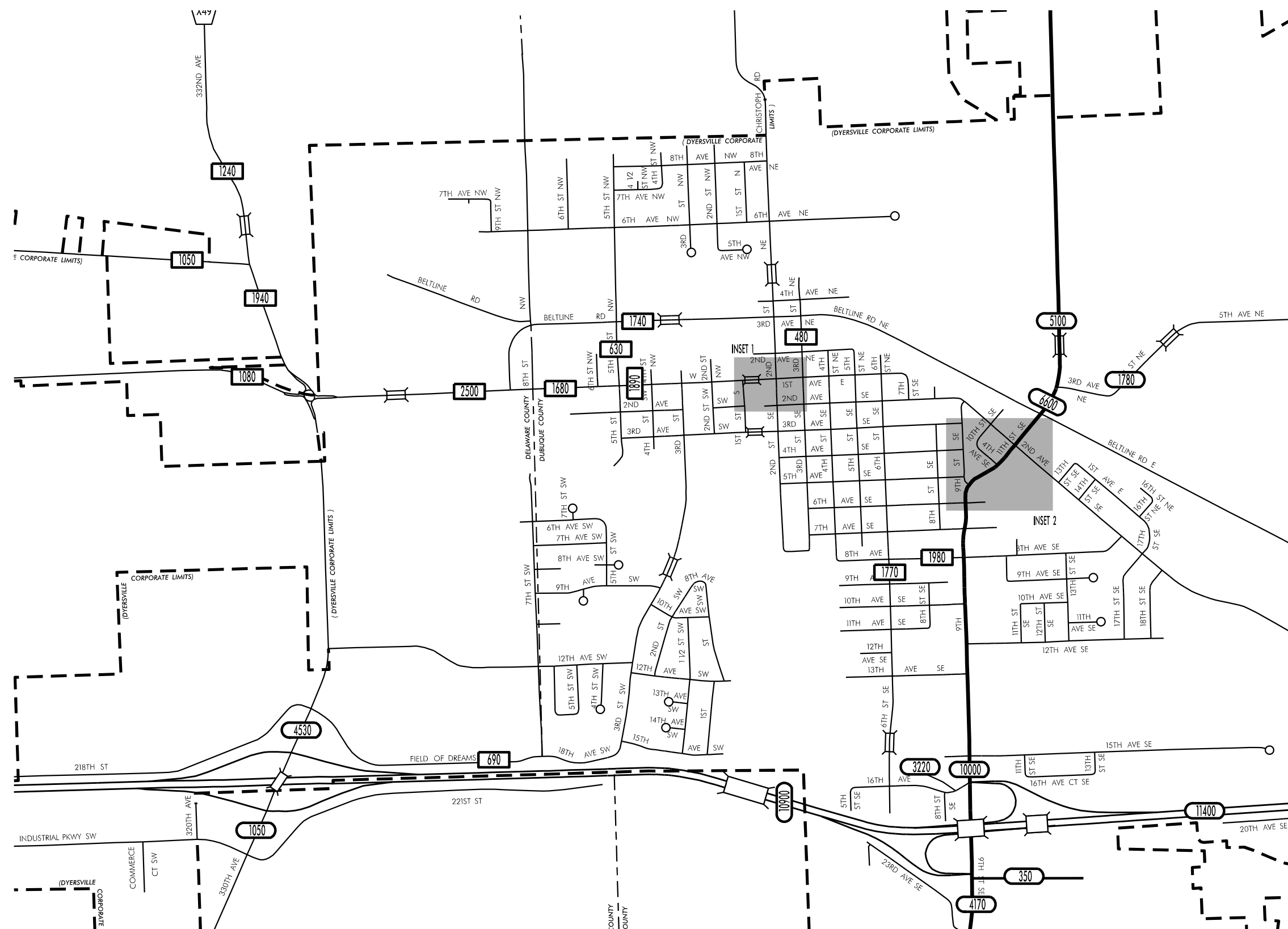
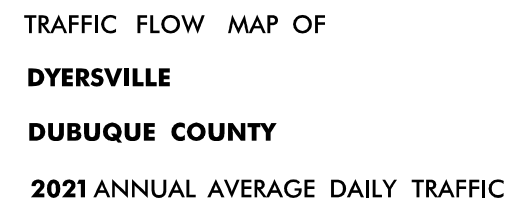
Using the Dyersville crash history:

- 2 serious injuries x \$325,000 = \$650,000
- 12 minor injuries x \$65,000 = \$780,000
- 32 possible/unknown injuries x \$35,000 = \$1,120,000.
- Total injury –related costs = \$2,550,000. Note the injury costs are more than double the costs of the property damages, which is typical.

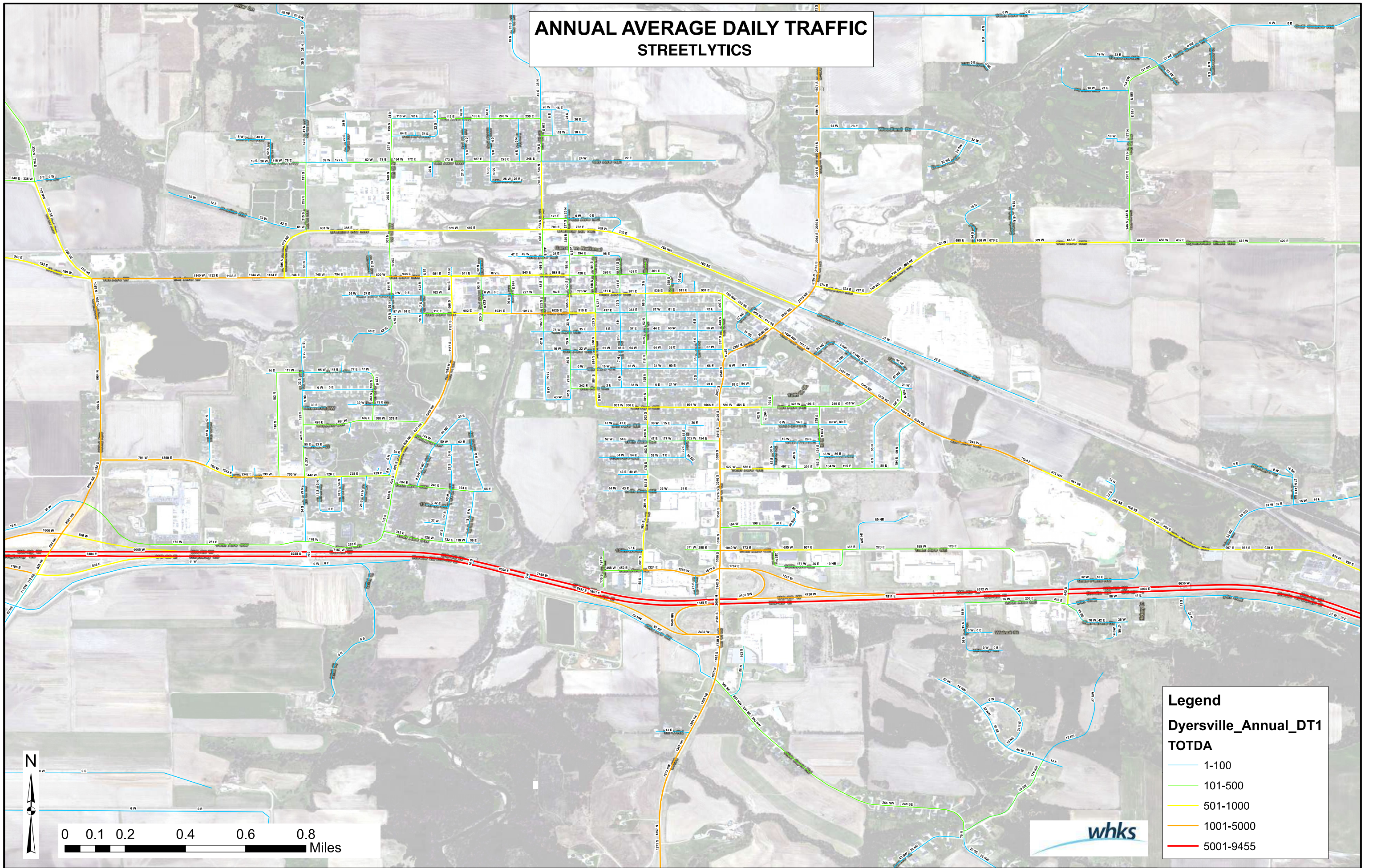
If the proposed bridges are constructed, a fair amount of traffic will not have to access US 20 to get from one side of town to the other. Intuitively, it's reasonable to expect that when a crash occurs on US 20, the severity may be higher due to the higher speeds being driven. The fatal crash rates for the two type of corridors, expressways have an average fatal crash rate of 0.47 crashes per hundred million vehicles per mile of travel (C/HMVM) whereas the municipal primary highways have a corresponding fatal crash rate of 1.05 C/HMVM. While the chances of being in a crash is about 5 times higher on the municipal system, the chances of being in a fatal crash are only about 2 times higher than on the expressway; this result provides evidence that crashes are more severe on the higher speed roadways. On the basis of travel (accumulated mileage driven), expressways are still safer when considering fatal crash rates only than municipal primary highways. The fewer crashes are more severe, but on balance, the lower severity doesn't make up for the much higher crash rate on the local street system.

ATTACHMENT A

Traffic Count Data



ANNUAL AVERAGE DAILY TRAFFIC STREETLYTICS



Legend

Dyersville_Annual_DT1
TOTDA

- 1-100
- 101-500
- 501-1000
- 1001-5000
- 5001-9455



Dyersville Estimated Weekday Hourly Turning Movements - Intersections 1-8

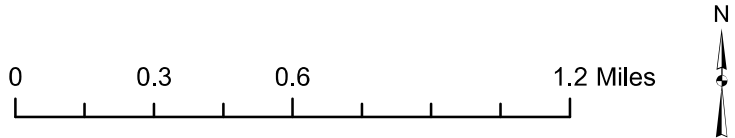
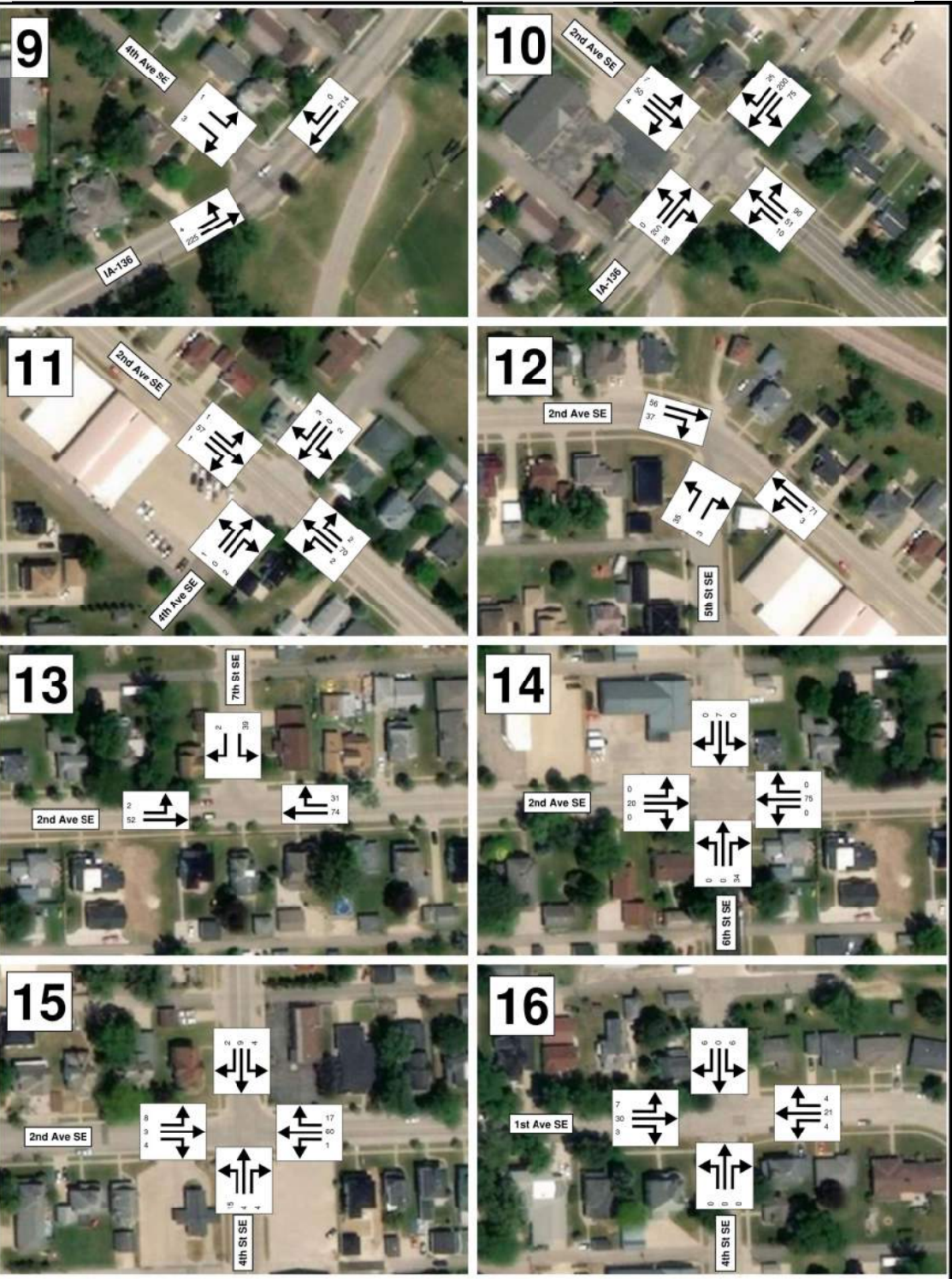
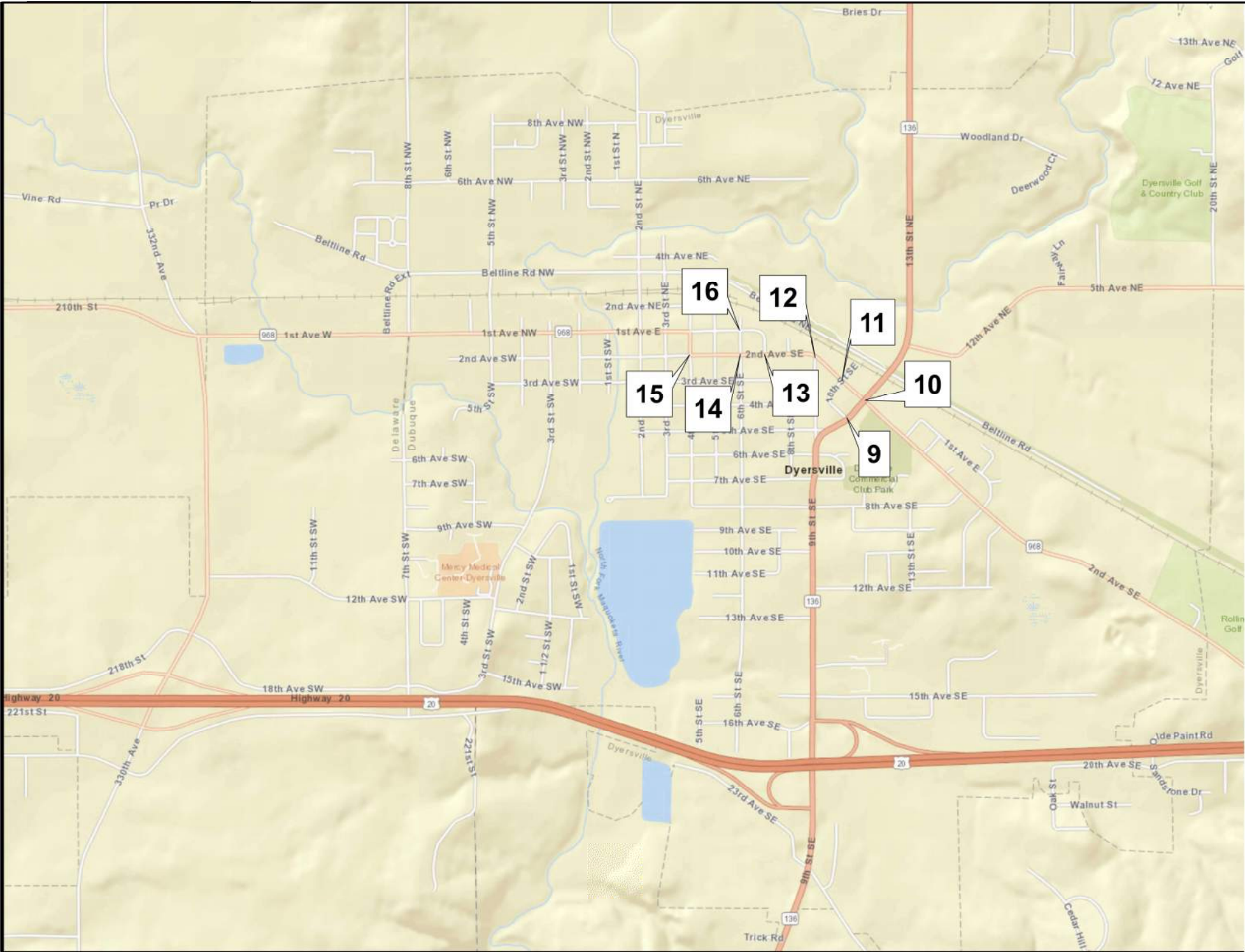


0 0.35 0.7 1.4 Miles

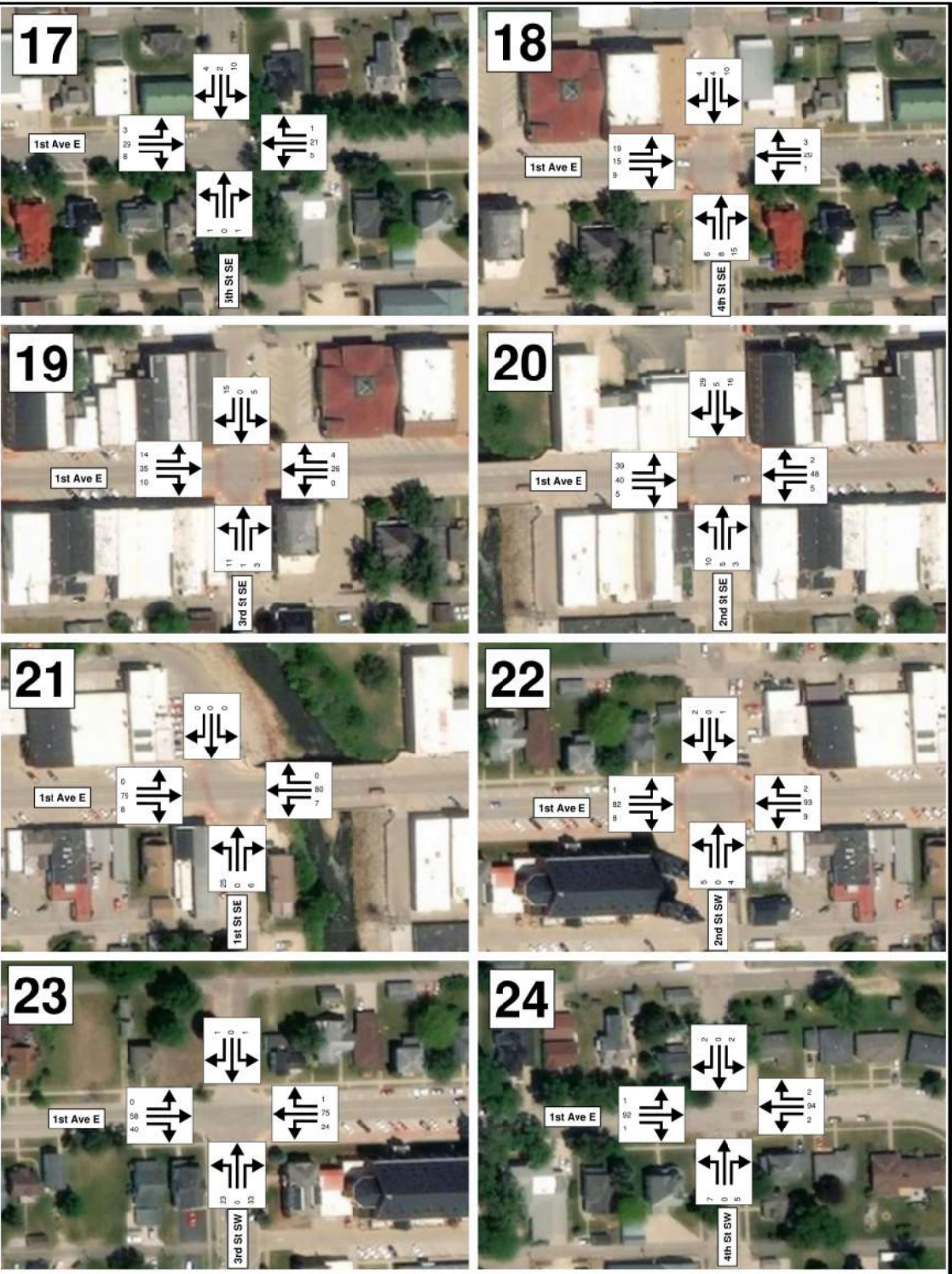
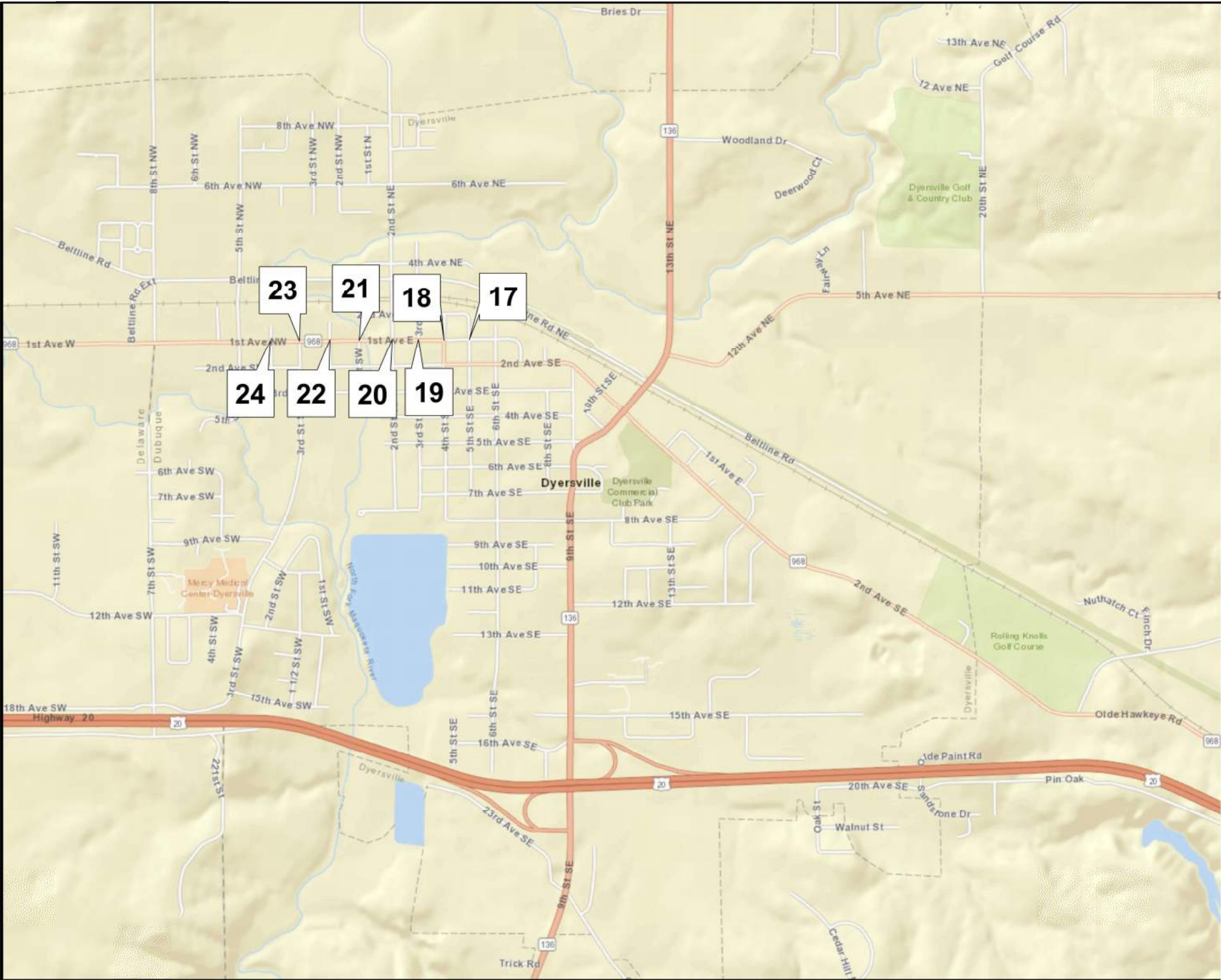


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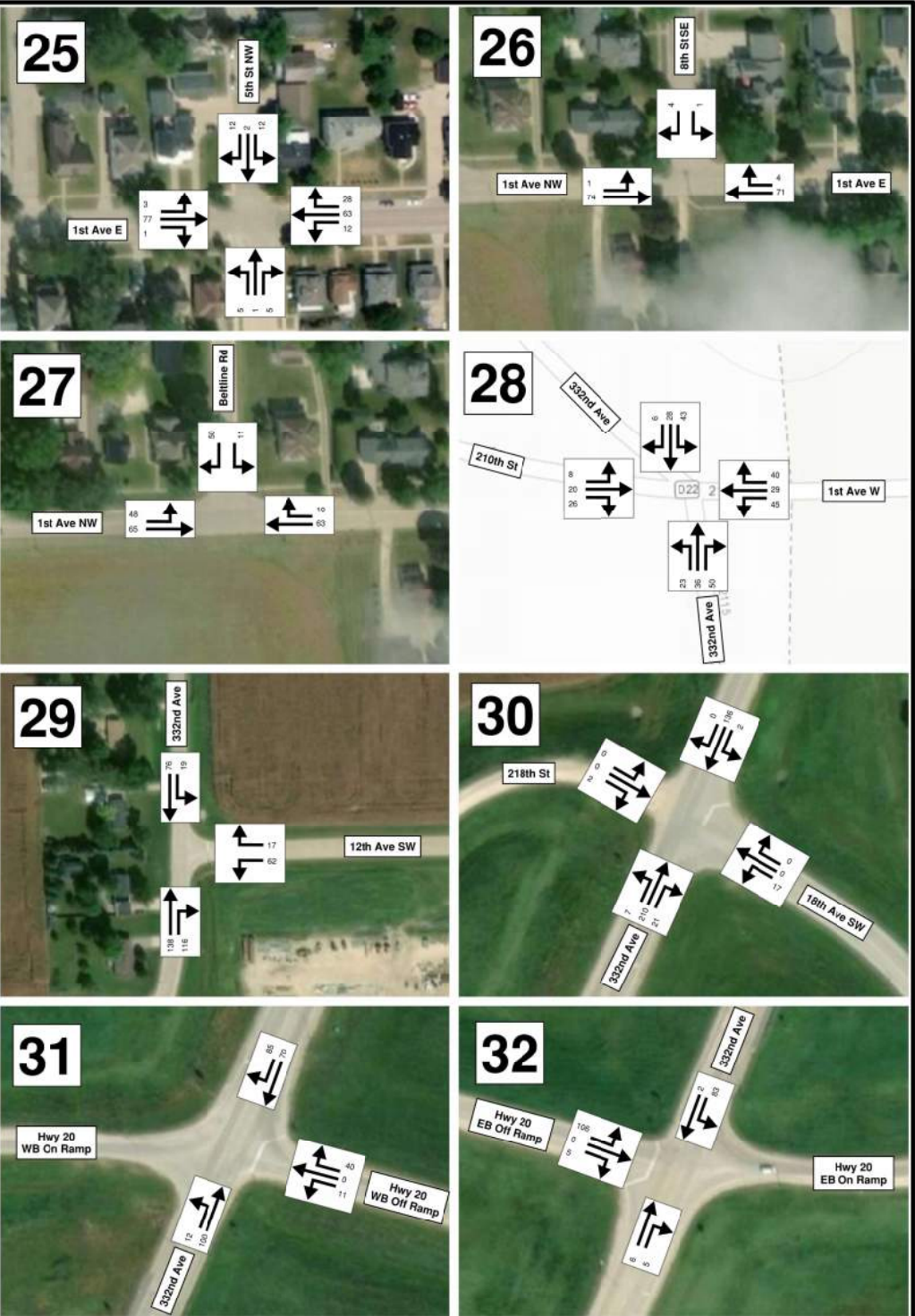
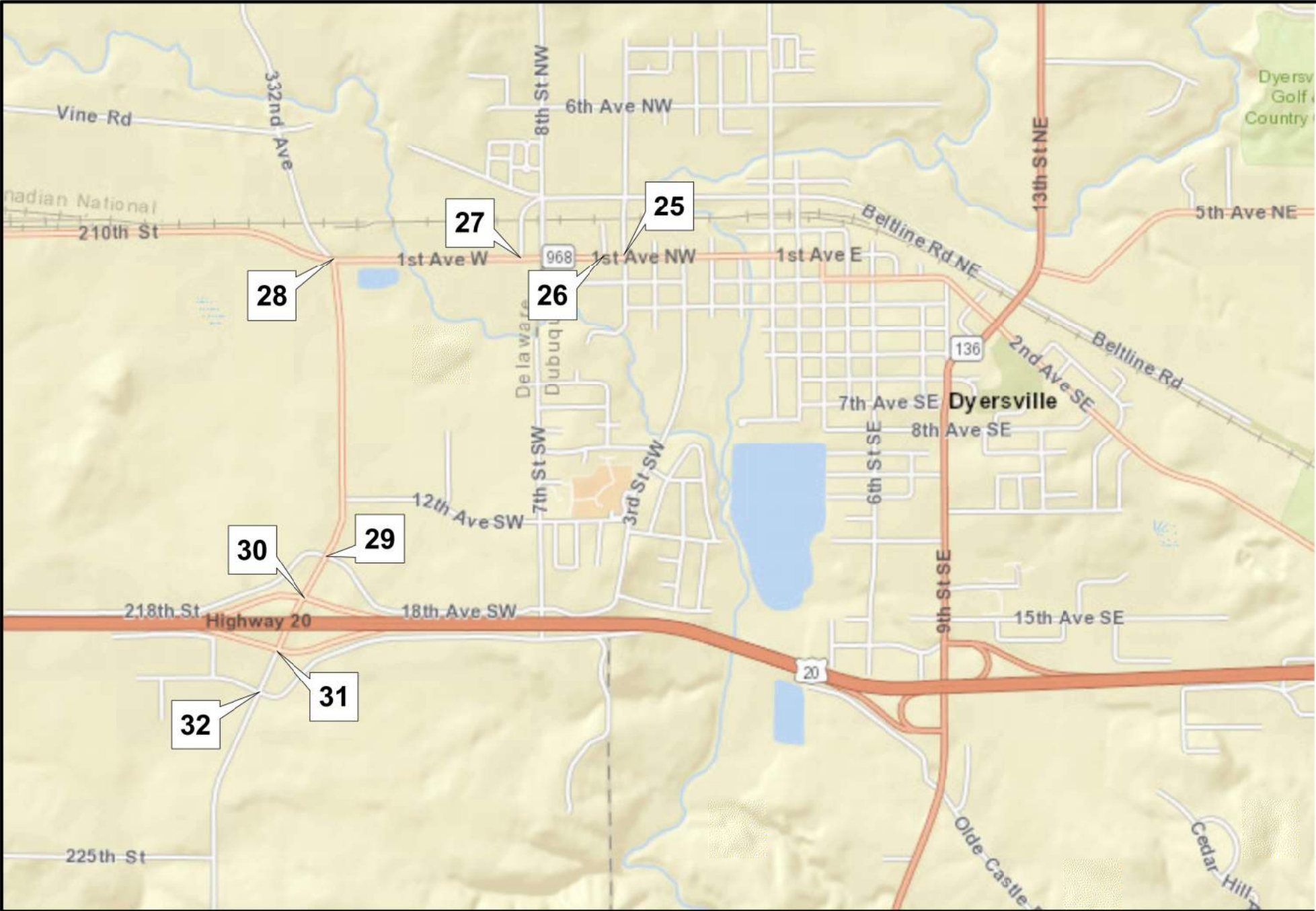
Dyersville Estimated Weekday Hourly Turning Movements - Intersections 9-16



Dyersville Estimated Weekday Hourly Turning Movements - Intersections 17-24



Dyersville Estimated Weekday Hourly Turning Movements Intersections 25-32

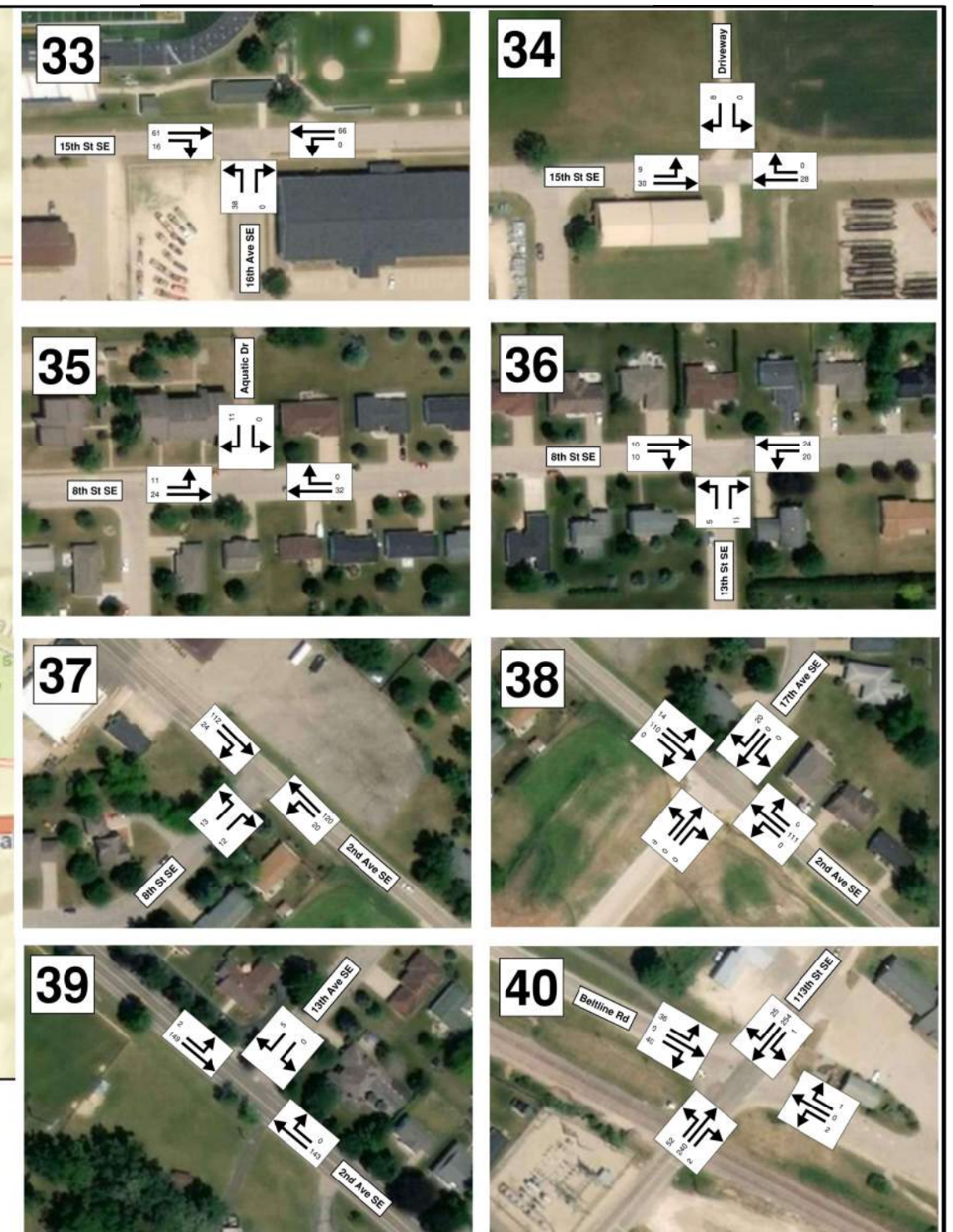
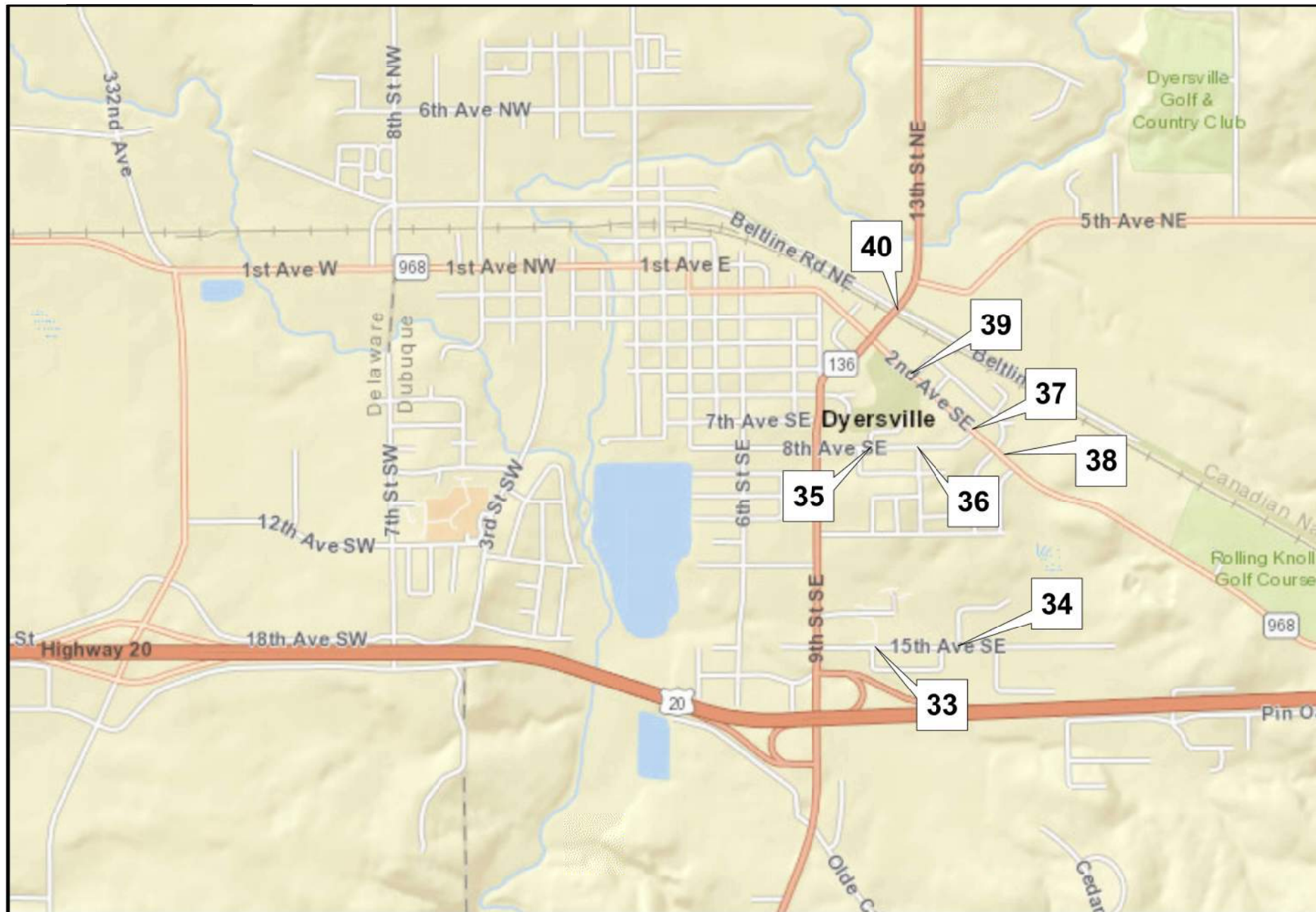


0 0.3 0.6 1.2 Miles



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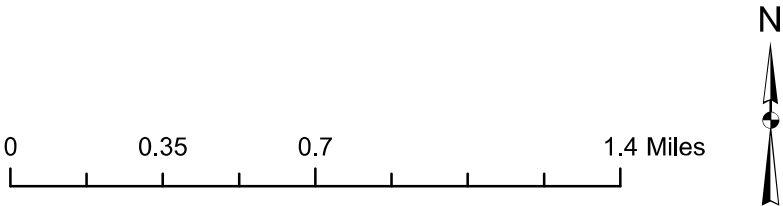
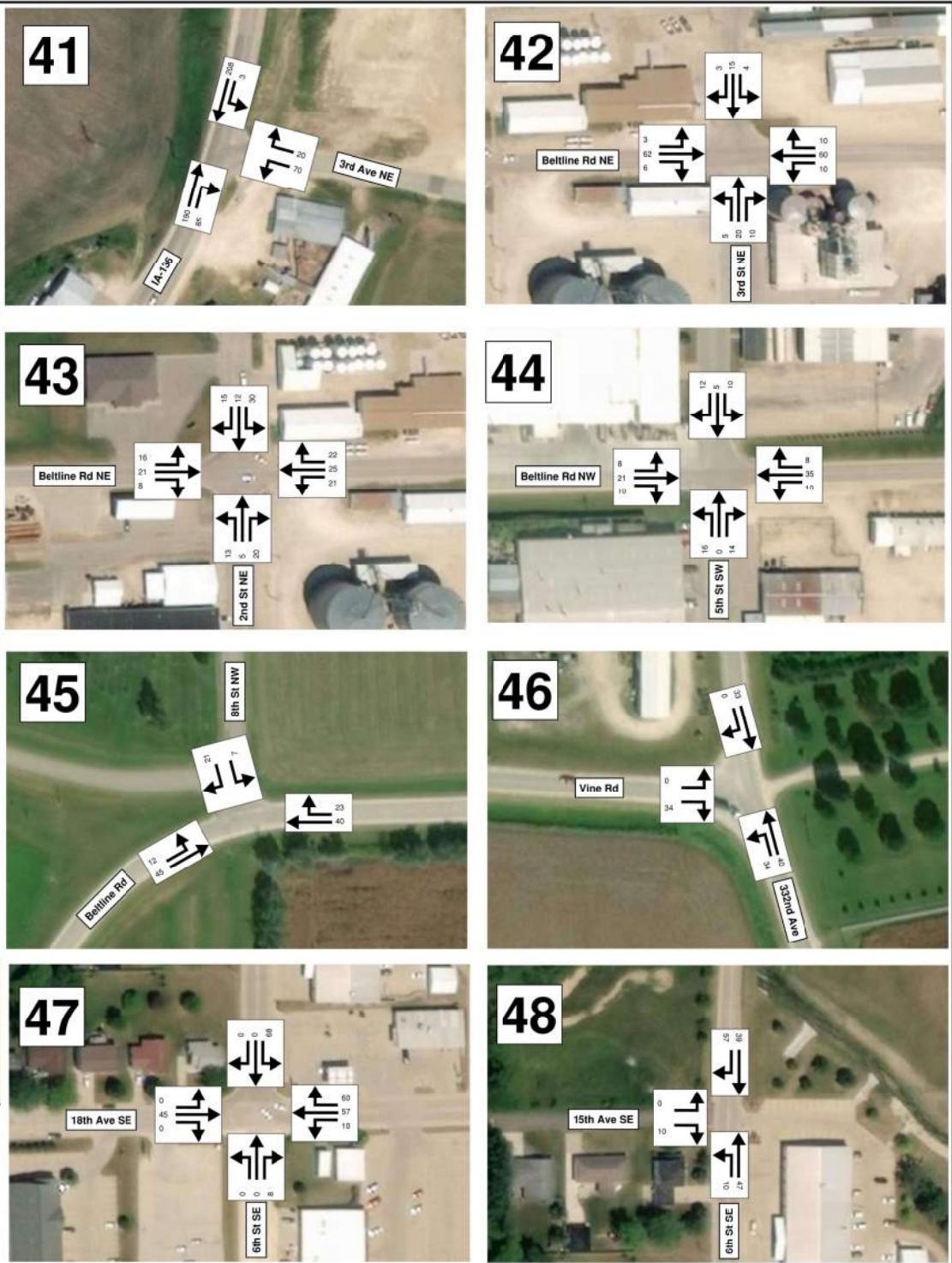
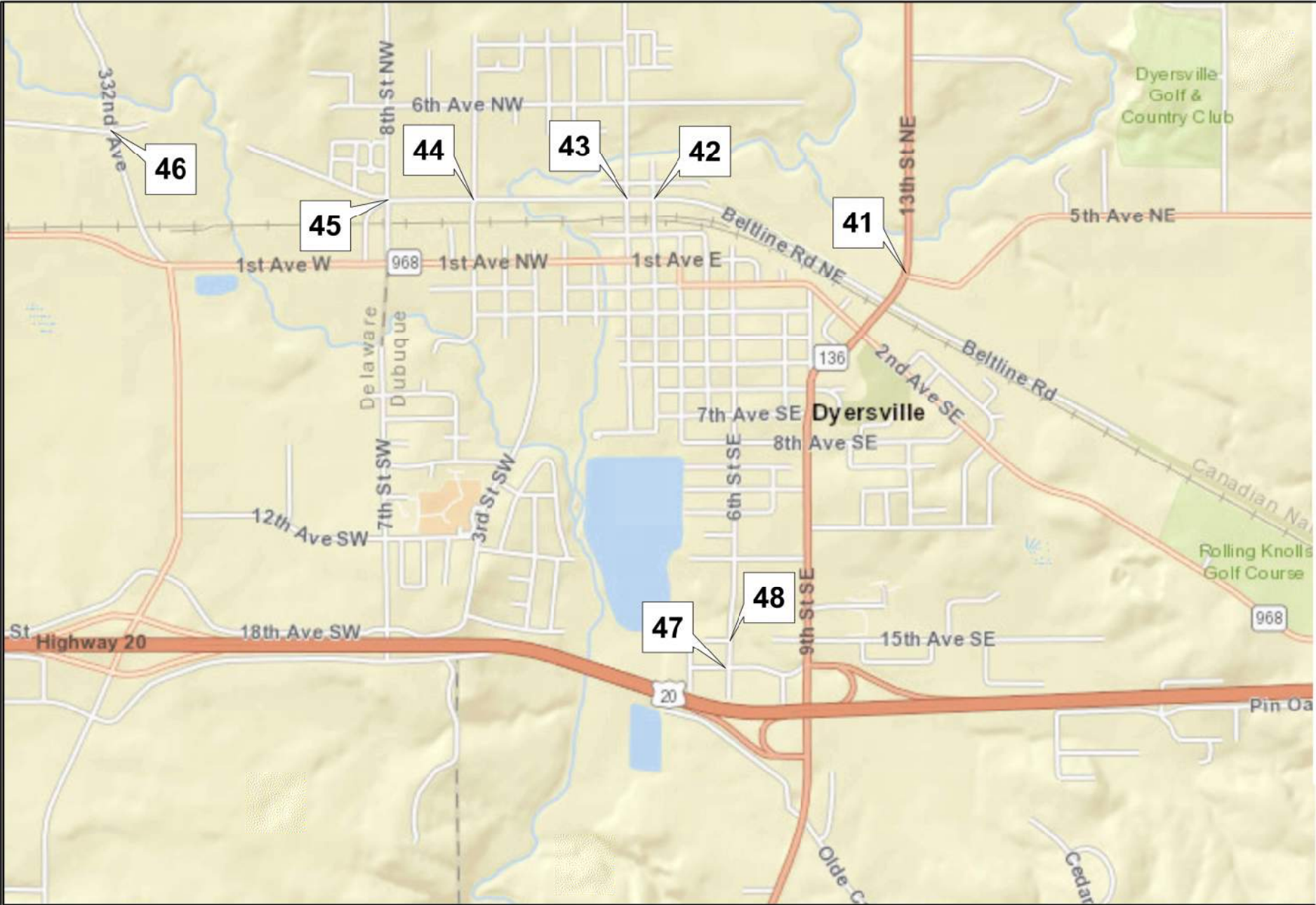
Dyersville Estimated Weekday Hourly Turning Movements Intersections 33-40



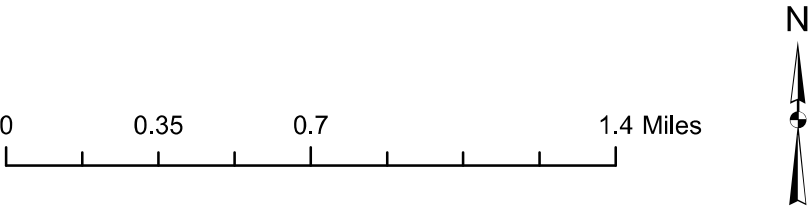
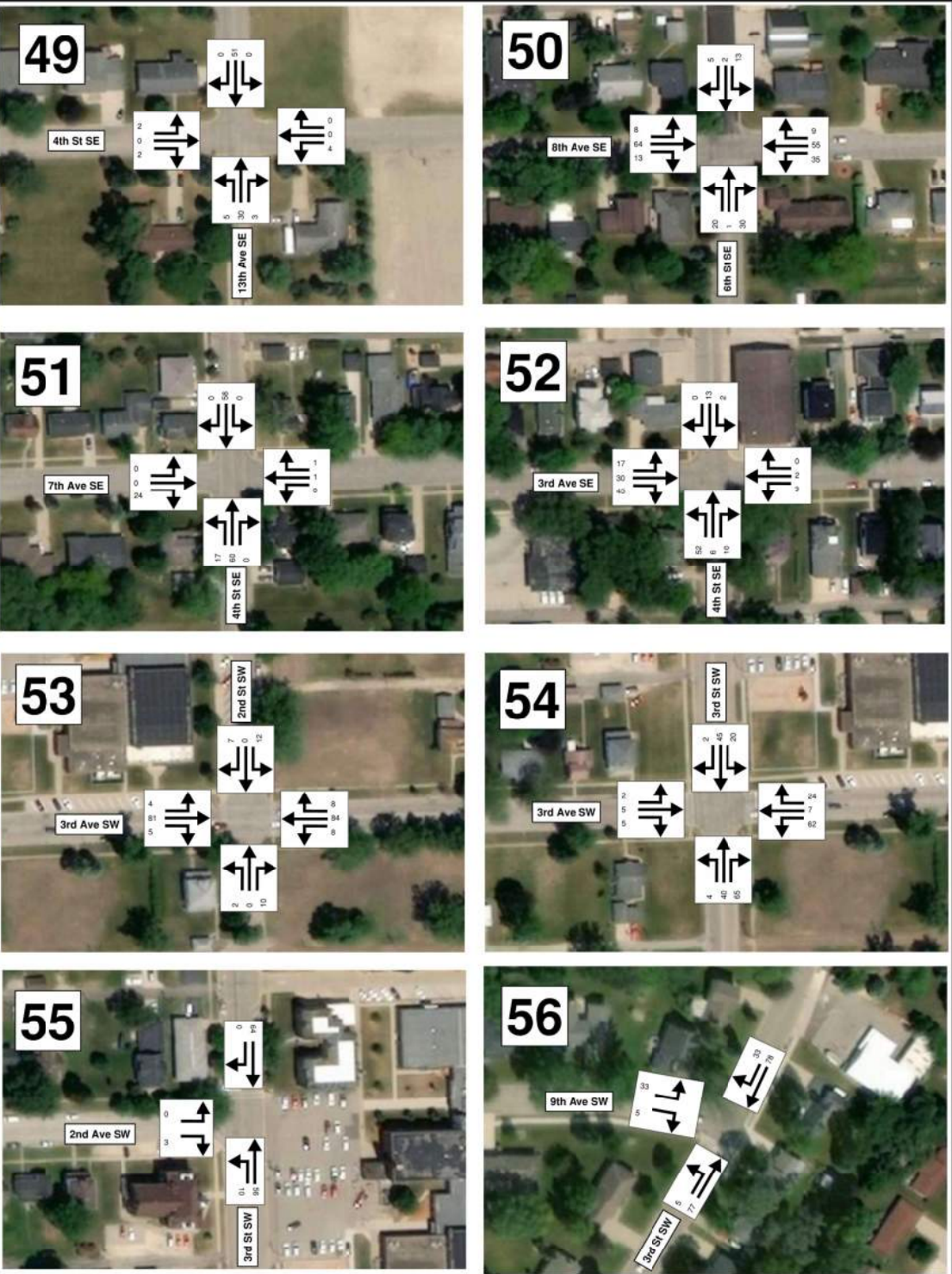
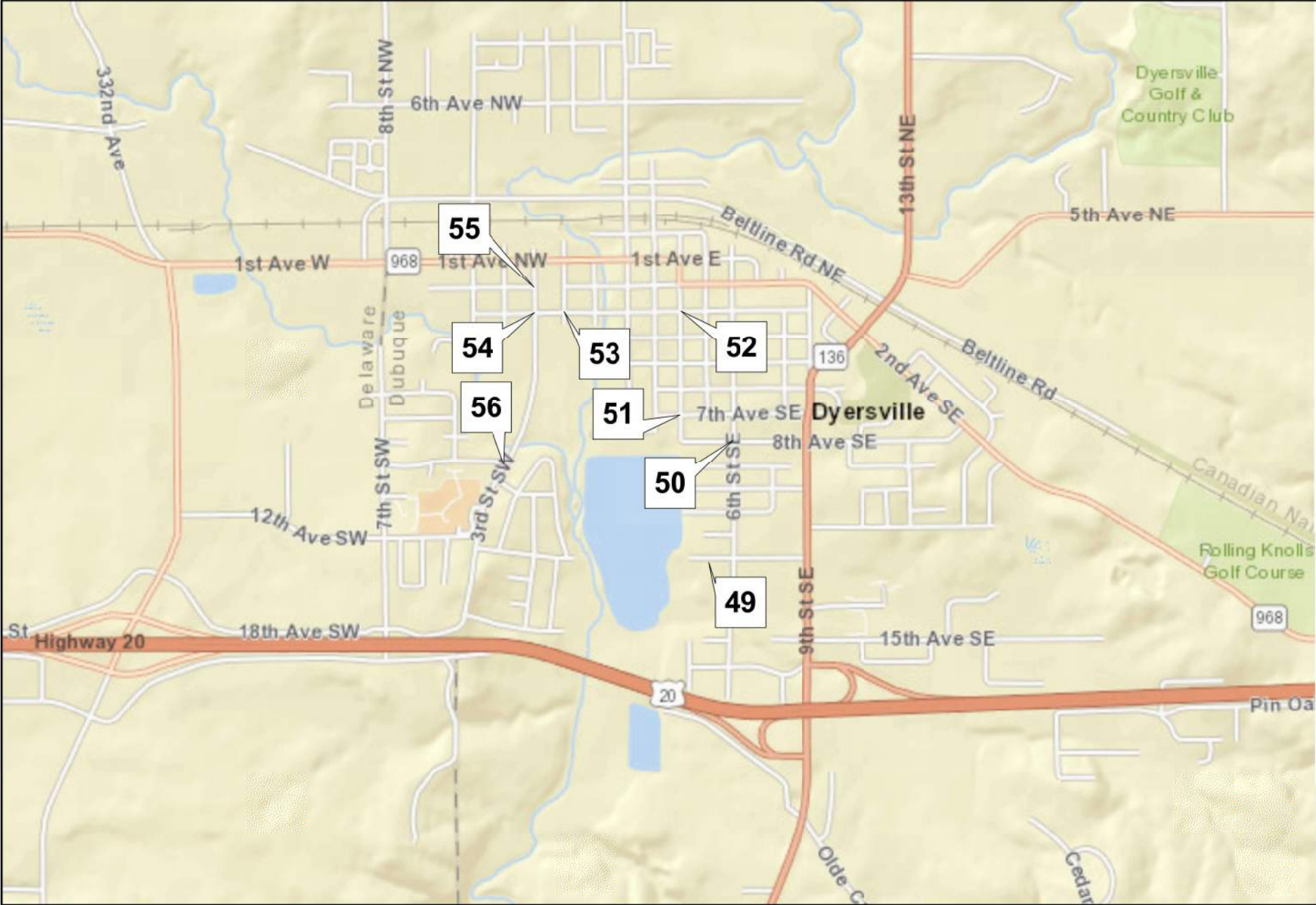
0 0.35 0.7 1.4 Miles



Dyersville Estimated Weekday Hourly Turning Movements Intersections 41-48

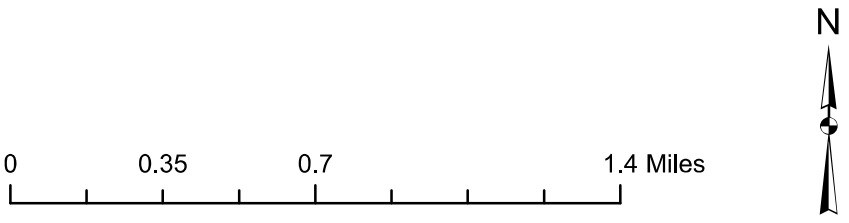
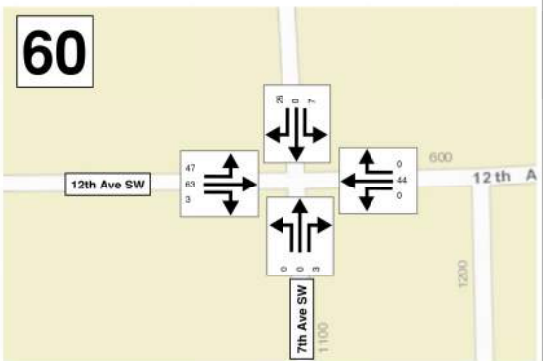
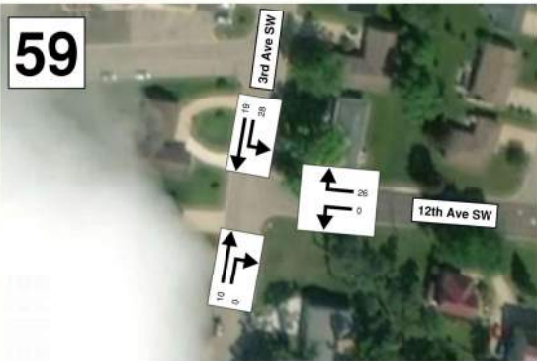
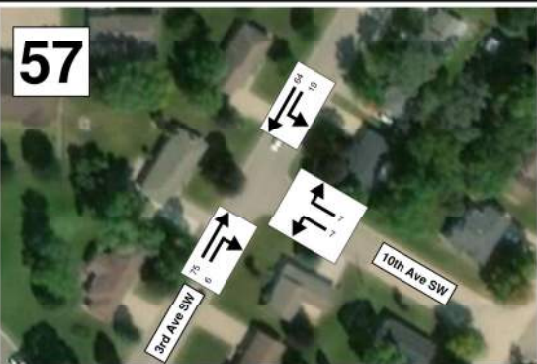
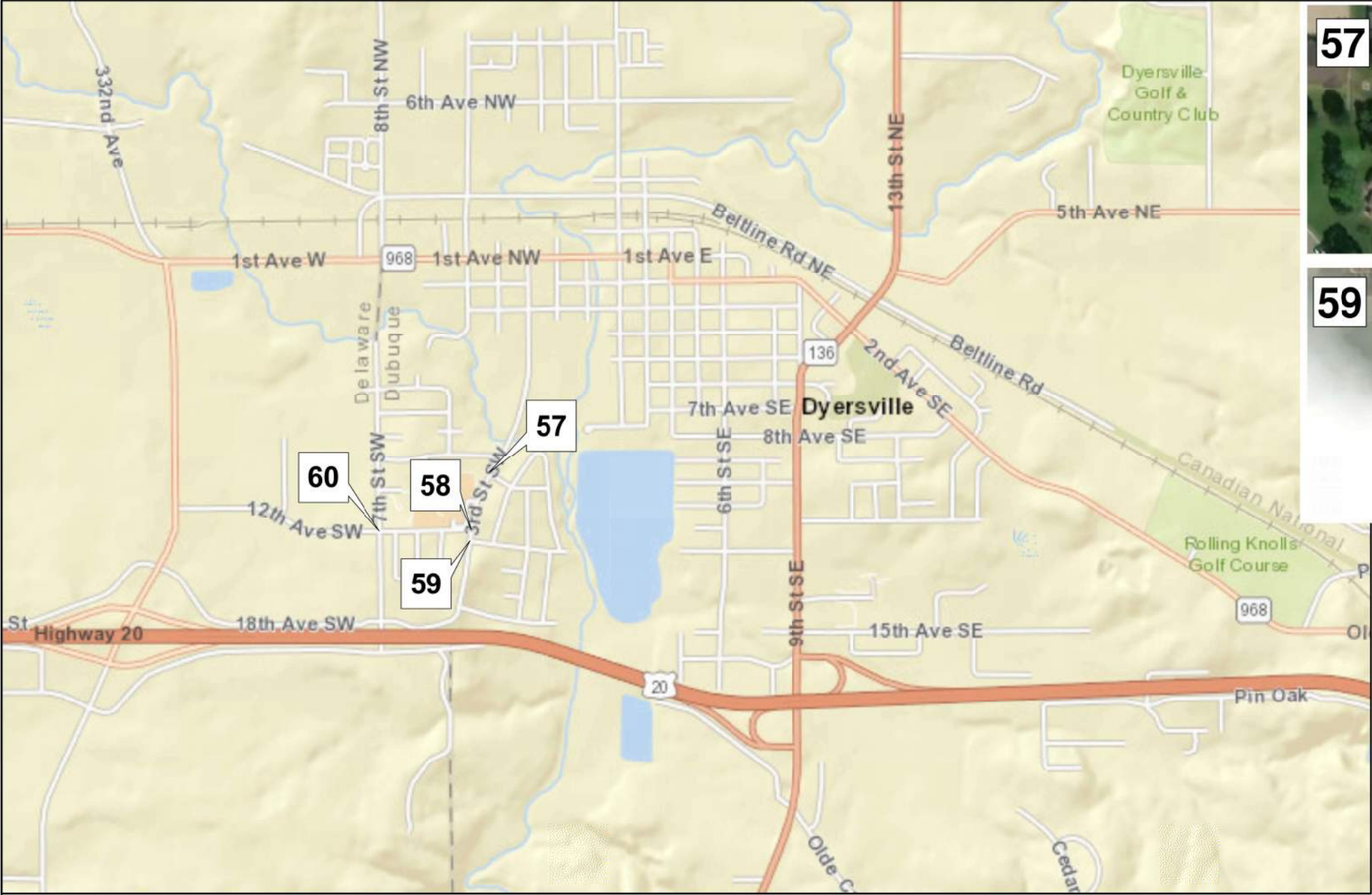


Dyersville Estimated Weekday Hourly Turning Movements Intersections 49-56



whks

Dyersville Estimated Weekday Hourly Turning Movements Intersections 57-60



ATTACHMENT B

Output Reports

OPENING YEAR 1A

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.942			0.953					0.479		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1779	0	892	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			54			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	64	86	34	99	149	0	252	108	80	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	360	0	80	331	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	
v/c Ratio		0.25			0.39			0.45		0.21	0.22	

OPENING YEAR 1A

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		6.8			7.7			10.7		10.8	7.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		6.8			7.7			10.7		10.8	7.0	
LOS		A			A			B		B	A	
Approach Delay		6.8			7.7			10.7			7.8	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.5

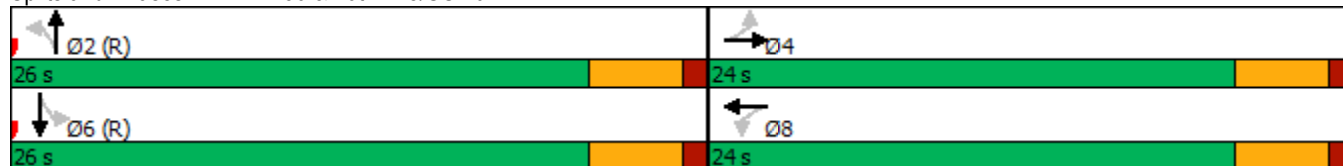
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1A
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.942			0.953					0.479		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1779	0	892	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			54			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

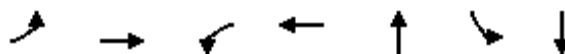
OPENING YEAR 1A
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	64	86	34	99	149	0	252	108	80	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	360	0	80	331	0
Intersection Summary												

OPENING YEAR 1A
1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↕		↕	↕	↕	↕
Traffic Volume (vph)	21	59	31	91	232	74	227
Future Volume (vph)	21	59	31	91	232	74	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.25		0.39	0.45	0.21	0.22
Control Delay		6.8		7.7	10.7	10.8	7.0
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		6.8		7.7	10.7	10.8	7.0
LOS		A		A	B	B	A
Approach Delay		6.8		7.7	10.7		7.8
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.5

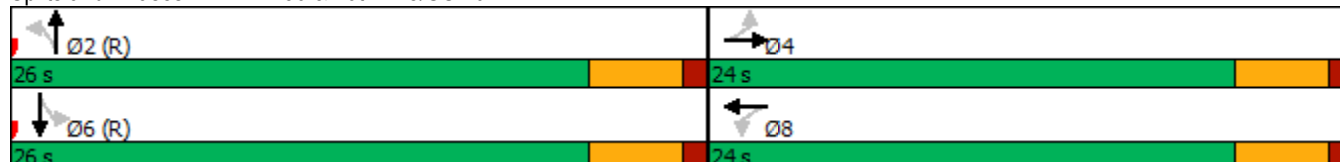
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

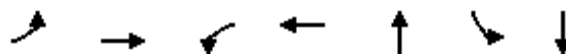
Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1A
1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed

OPENING YEAR 1A
1: IA 136 & 16th Ave/US 20

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Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	173	282	360	80	331
v/c Ratio	0.25	0.39	0.45	0.21	0.22
Control Delay	6.8	7.7	10.7	10.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.7	10.7	10.8	7.0
Queue Length 50th (ft)	16	28	58	14	22
Queue Length 95th (ft)	47	71	114	37	42
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	690	723	795	383	1512
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.39	0.45	0.21	0.22
Intersection Summary					

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1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	159	0	0	259	0	0	331	0	74	304	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.96	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1815	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	21.9	0.0	4.9	10.5	0.0
Adj Reference Time (s)	0.0			0.0			9.5	26.4	0.0	9.5	15.0	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1815		120	1740	
Reference Time A (s)	0.0	15.0		0.0	23.2		0.0	21.9		73.8	10.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	15.0		23.2		21.9		73.8					
Adj Reference Time (s)	19.5		27.7		26.4		78.3					
Split Option												
Ref Time Combined (s)	0.0	10.9		0.0	17.9		0.0	21.9		4.9	10.5	
Ref Time Seperate (s)	1.4	4.1		2.1	6.3		0.0	15.3		4.9	7.8	
Reference Time (s)	10.9	10.9		17.9	17.9		21.9	21.9		10.5	10.5	
Adj Reference Time (s)	15.4	15.4		22.4	22.4		26.4	26.4		15.0	15.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		35.9									
Permitted Option (s)	27.7		78.3									
Split Option (s)	37.8		41.4									
Minimum (s)	27.7		35.9		63.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	53.0%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A

1: IA 136 & 16th Ave/US 20

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	252	108	80	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	283	321	120	266	342	144	534	229	435	1127	374
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	105	726	822	101	682	878	1049	1242	532	1022	2621	869
Grp Volume(v), veh/h	173	0	0	282	0	0	0	0	360	80	165	166
Grp Sat Flow(s),veh/h/ln	1654	0	0	1661	0	0	1049	0	1775	1022	1777	1714
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	3.0	2.9	3.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	6.0	0.0	0.0	0.0	0.0	7.3	10.3	2.9	3.0
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.30	1.00		0.51
Lane Grp Cap(c), veh/h	727	0	0	728	0	0	144	0	763	435	764	737
V/C Ratio(X)	0.24	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.47	0.18	0.22	0.22
Avail Cap(c_a), veh/h	727	0	0	728	0	0	144	0	763	435	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.1	0.0	0.0	0.0	0.0	10.2	13.9	9.0	9.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.1	0.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	2.7	0.7	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	12.3	14.8	9.6	9.7
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		173			282			360			411	
Approach Delay, s/veh		11.1			12.7			12.3			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		9.3		5.4		12.3		8.0				
Green Ext Time (p_c), s		1.8		0.8		1.6		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	252	108	80	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	283	321	120	266	342	144	534	229	435	1127	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	12.3	14.8	9.6	9.7
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h	173			282			360			411		
Approach Delay, s/veh	11.1			12.7			12.3			10.7		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.2			5.5		
Max Q Clear (g_c+I1), s	9.3			5.4			12.3			8.0		
Green Ext Time (g_e), s	1.8			0.8			1.6			1.3		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1049			105			1022			101		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1242			726			2621			682		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	532			822			869			878		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	173	0	80	0	282
Grp Sat Flow (s), veh/h/ln	0	1049	0	1654	0	1022	0	1661
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	10.3	0.0	6.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1049	0	1150	0	1022	0	1257
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.5	0.0	14.2	0.0	16.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	727	0	435	0	728
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.18	0.00	0.39
Avail Cap (c_a), veh/h	0	144	0	727	0	435	0	728
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.3	0.0	13.9	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.9	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.1	0.0	14.8	0.0	12.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.6	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.2	0.0	0.7	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.15	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	165	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	360	0	0	0	166	0	0
Grp Sat Flow (s), veh/h/ln	0	1775	0	0	0	1714	0	0
Q Serve Time (g_s), s	0.0	7.3	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	0.0	0.0	3.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	763	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	763	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.3	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.87	1.96	2.29	2.32
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	173	282	360	411
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.65	2.78	2.52	2.35
Bicycle LOS	C	C	C	B

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	0	0	0	234	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.8%						ICU Level of Service A					
Analysis Period (min)	15											

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	115	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	0	0	0	234	0	0	345	0
Intersection Summary												

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	174	0	0	0	0	0	215	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1734	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	1280		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	16.3		0.0	0.0		0.0	46.3		0.0	11.7	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	15.0	20.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)	16.3				0.0		46.3				11.7	
Adj Reference Time (s)	20.3				8.0		50.3				15.7	
Split Option												
Ref Time Combined (s)	0.0	12.0		0.0	0.0		0.0	7.2		0.0	11.7	
Ref Time Seperate (s)	7.0	0.0		0.0	0.0		3.1	5.6		0.0	3.9	
Reference Time (s)	12.0	12.0		0.0	0.0		7.2	7.2		11.7	11.7	
Adj Reference Time (s)	16.0	16.0		0.0	0.0		11.2	11.2		15.7	15.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.3		50.3									
Split Option (s)	16.0		26.9									
Minimum (s)	16.0		26.9		43.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	35.8%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

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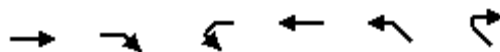
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Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	0	74	0	0	0	50	184	0	0	116	229
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	423	515	173	342	629	92	345	0	0	184	0	0
Stage 1	231	231	-	284	284	-	-	-	-	-	-	-
Stage 2	192	284	-	58	345	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	515	462	840	588	398	947	1211	-	-	1388	-	-
Stage 1	751	712	-	699	675	-	-	-	-	-	-	-
Stage 2	791	675	-	947	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	497	441	840	517	380	947	1211	-	-	1388	-	-
Mov Cap-2 Maneuver	497	441	-	517	380	-	-	-	-	-	-	-
Stage 1	716	712	-	667	644	-	-	-	-	-	-	-
Stage 2	755	644	-	864	635	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.9		0		1.8		0					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1211	-	-	591	-	1388	-	-				
HCM Lane V/C Ratio	0.041	-	-	0.32	-	-	-	-				
HCM Control Delay (s)	8.1	0.1	-	13.9	0	0	-	-				
HCM Lane LOS	A	A	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	1.4	-	0	-	-				

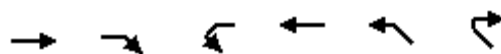
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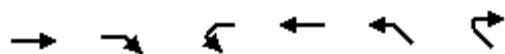
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	239	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.0%			ICU Level of Service A		
Analysis Period (min)	15					



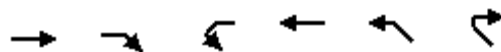
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	239	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	239	0	0	0	0
Intersection Summary						

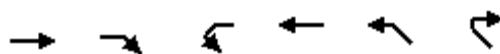


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1A

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Volume (vph)	0	220	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	220	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	16.3	0.0	0.0		0.0
Adj Reference Time (s)	0.0	20.3	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0		0.0	
Right Turns	EBR					
Adj Reference Time (s)	20.3					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	20.3					
Intersection Summary						
Intersection Capacity Utilization		17.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.955			0.948		0.558			0.523		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1039	1824	0	974	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		22			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	5	95	11	39	15	91	275	46	3	287	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	321	0	3	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	
v/c Ratio		0.18			0.07	0.02	0.22	0.43		0.01	0.39	

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.3			8.9	2.0	10.7	11.3		8.3	11.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			8.9	2.0	10.7	11.3		8.3	11.5	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.3			11.2			11.5	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 10.1

Intersection LOS: B

Intersection Capacity Utilization 44.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.896				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.955			0.948		0.558			0.523		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1039	1824	0	974	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		22			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

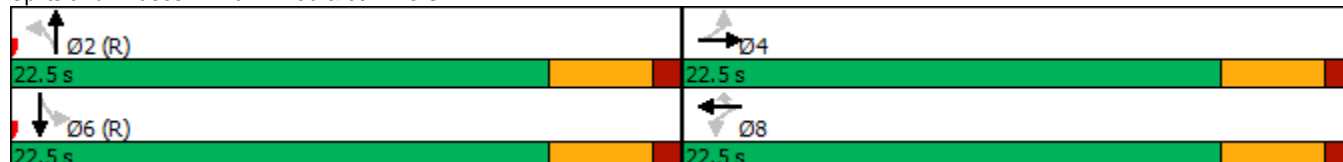
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	5	95	11	39	15	91	275	46	3	287	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	321	0	3	292	0
Intersection Summary												

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	21	5	10	36	14	84	253	3	264
Future Volume (vph)	21	5	10	36	14	84	253	3	264
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.18		0.07	0.02	0.22	0.43	0.01	0.39
Control Delay		4.3		8.9	2.0	10.7	11.3	8.3	11.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		8.9	2.0	10.7	11.3	8.3	11.5
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.3			11.2		11.5
Approach LOS		A		A			B		B
Intersection Summary									
Cycle Length: 45									
Actuated Cycle Length: 45									
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green									
Natural Cycle: 45									
Control Type: Pretimed									
Maximum v/c Ratio: 0.43									
Intersection Signal Delay: 10.1					Intersection LOS: B				
Intersection Capacity Utilization 44.7%					ICU Level of Service A				
Analysis Period (min) 15									

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	123	50	15	91	321	3	292
v/c Ratio	0.18	0.07	0.02	0.22	0.43	0.01	0.39
Control Delay	4.3	8.9	2.0	10.7	11.3	8.3	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	8.9	2.0	10.7	11.3	8.3	11.5
Queue Length 50th (ft)	4	7	0	15	52	1	50
Queue Length 95th (ft)	26	m22	m4	38	103	4	97
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	694	706	654	415	742	389	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.07	0.02	0.22	0.43	0.01	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	113	0	0	46	14	84	295	0	3	269	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1859	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.0			5.6	19.0	0.0	0.2	17.0	0.0
Adj Reference Time (s)	0.0			9.5			10.1	23.5	0.0	9.5	21.5	0.0
Permitted Option												
Adj Saturation A (vph)	0	436	0	0	1327	0	120	1859	0	120	1895	0
Reference Time A (s)	0.0	31.1	0.0	0.0	4.2	0.0	83.8	19.0	0.0	3.0	17.0	0.0
Adj Saturation B (vph)	0	0	0	0	0	0	NA	NA	0	NA	NA	0
Reference Time B (s)	9.4	16.1	8.7	8.7	10.9	0.0	NA	NA	0.0	NA	NA	0.0
Reference Time (s)	16.1			4.2			83.8			17.0		
Adj Reference Time (s)	20.6			9.5			88.3			21.5		
Split Option												
Ref Time Combined (s)	0.0	8.1	0.0	0.0	2.9	0.0	5.6	19.0	0.0	0.2	17.0	0.0
Ref Time Seperate (s)	1.4	0.4	0.0	0.0	2.3	0.0	5.6	16.3	0.0	0.2	16.7	0.0
Reference Time (s)	8.1	8.1	2.9	2.9	2.9	0.0	19.0	19.0	17.0	17.0	17.0	0.0
Adj Reference Time (s)	12.6	12.6	9.5	9.5	9.5	0.0	23.5	23.5	21.5	21.5	21.5	0.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		33.0									
Permitted Option (s)	20.6		88.3									
Split Option (s)	22.1		45.1									
Minimum (s)	20.6		33.0		53.7							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	23.5											
Oncoming Left Ref Time (s)	12.6											
Combined (s)	45.7											
Intersection Summary												
Intersection Capacity Utilization			44.7%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	275	46	3	287	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	76	489	195	608	634	474	625	105	448	733	13
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	171	190	1224	243	1519	1585	1087	1562	261	1059	1833	32
Grp Volume(v), veh/h	123	0	0	50	0	15	91	0	321	3	0	292
Grp Sat Flow(s),veh/h/ln	1584	0	0	1762	0	1585	1087	0	1823	1059	0	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	2.9	0.0	5.8	0.1	0.0	5.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.7	0.0	0.3	7.9	0.0	5.8	5.9	0.0	5.0
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.14	1.00		0.02
Lane Grp Cap(c), veh/h	729	0	0	803	0	634	474	0	729	448	0	746
V/C Ratio(X)	0.17	0.00	0.00	0.06	0.00	0.02	0.19	0.00	0.44	0.01	0.00	0.39
Avail Cap(c_a), veh/h	729	0	0	803	0	634	474	0	729	448	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	8.3	0.0	8.2	12.4	0.0	9.8	12.0	0.0	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.1	0.9	0.0	1.9	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.1	0.7	0.0	2.2	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.3	0.0	11.8	12.0	0.0	11.1
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		123			65			412			295	
Approach Delay, s/veh		9.3			8.4			12.1			11.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.9		4.2		7.9		2.7				
Green Ext Time (p_c), s		1.4		0.5		1.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.1								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	275	46	3	287	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	163	76	489	195	608	634	474	625	105	448	733	13
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.3	0.0	11.8	12.0	0.0	11.1
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	123			65			412			295		
Approach Delay, s/veh	9.3			8.4			12.1			11.2		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.1			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	9.9			4.2			7.9			2.7		
Green Ext Time (g_e), s	1.4			0.5			1.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1087			171			1059			243		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1562			190			1833			1519		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	261			1224			32			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	123	0	3	0	50
Grp Sat Flow (s), veh/h/ln	0	1087	0	1584	0	1059	0	1762
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	2.2	0.0	5.9	0.0	0.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1087	0	1371	0	1059	0	1315
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	13.0	0.0	17.3	0.0	12.2	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.7
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	474	0	729	0	448	0	803
V/C Ratio (X)	0.00	0.19	0.00	0.17	0.00	0.01	0.00	0.06
Avail Cap (c_a), veh/h	0	474	0	729	0	448	0	803
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.4	0.0	8.8	0.0	12.0	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.5	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	9.3	0.0	12.0	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.02	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	321	0	0	0	292	0	15
Grp Sat Flow (s), veh/h/ln	0	1823	0	0	0	1865	0	1585
Q Serve Time (g_s), s	0.0	5.8	0.0	0.0	0.0	5.0	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.0	0.0	5.0	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	729	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.44	0.00	0.00	0.00	0.39	0.00	0.02
Avail Cap (c_a), veh/h	0	729	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	9.6	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.0	1.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.8	0.0	0.0	0.0	11.1	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.0	0.0	1.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	1.9	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.06	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.82	1.96	2.18	2.12
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	123	65	412	295
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.31	2.23	2.79	2.41
Bicycle LOS	B	B	C	B

OPENING YEAR 1A
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	40	38	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	41	0	0	80
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.1% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1A
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3

Intersection Summary

Area Type: Other

OPENING YEAR 1A
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	61	40	38	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	41	0	0	80
Intersection Summary						

OPENING YEAR 1A
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

OPENING YEAR 1A
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	56	37	35	3	3	71
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	93	0	38	0	0	74
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.94	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1791	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	6.9	0.0		0.0		
Adj Reference Time (s)	10.9	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			119		0	120
Reference Time A (s)			38.2		0.0	73.8
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			2.5		0.0	4.9
Ref Time Seperate (s)			2.3		0.2	4.7
Reference Time (s)			2.5		4.9	4.9
Adj Reference Time (s)			8.0		8.9	8.9
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		8.9	
Minimum (s)	0.0		8.0		8.9	16.9
Right Turns	EBR					
Adj Reference Time (s)	10.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	10.9					
Intersection Summary						
Intersection Capacity Utilization			14.1%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893		0.905		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1662	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	243	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	0	68	0	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.5%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.893		0.905		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1662	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

OPENING YEAR 1A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	64	243	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	0	68	0	248	0
Intersection Summary						

OPENING YEAR 1A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

OPENING YEAR 1A

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	59	224	18	44	224	5
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	283	0	62	0	229	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1657	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	307.4		66.7		228.9	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	20.5		4.4		15.3	
Ref Time Seperate (s)	4.3		1.3		14.9	
Reference Time (s)	20.5		4.4		15.3	
Adj Reference Time (s)	24.5		8.4		19.3	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	24.5		8.4		19.3	
Minimum (s)	24.5		8.4		19.3	52.2
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		43.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.929			0.955		0.988			0.999	
Flt Protected		0.977			0.968		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1722	0	1759	0	0	1773	0
Flt Permitted		0.977			0.968		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1722	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	0	47	2	0	1	299	29	61	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	89	0	0	3	0	328	0	0	346	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization 49.6%											
ICU Level of Service A											
Analysis Period (min) 15											

OPENING YEAR 1A

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.929			0.955		0.988			0.999	
Flt Protected		0.977			0.968		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1722	0	1759	0	0	1773	0
Flt Permitted		0.977			0.968		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1722	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

OPENING YEAR 1A

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	42	0	47	2	0	1	299	29	61	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	89	0	0	3	0	328	0	0	346	0
Intersection Summary											

OPENING YEAR 1A

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

OPENING YEAR 1A

30: Beltline Rd

01/15/2025

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right	No			No			No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	82	0	0	3	0	302	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.92	0.85	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1709	0	0	1745	0	1789	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00	
Protected Option Allowed	No			No			No			No	
Reference Time (s)	0.0			0.0			0.0			0.0	
Adj Reference Time (s)	0.0			0.0			0.0			0.0	
Permitted Option											
Adj Saturation A (vph)	0	1606		0	1193		119		0	120	
Reference Time A (s)	0.0	6.1		0.0	0.3		303.8		0.0	317.3	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	10.6	13.8		8.1	8.2		NA		NA	NA	
Reference Time (s)	6.1			0.3							
Adj Reference Time (s)	10.1			8.0							
Split Option											
Ref Time Combined (s)	0.0	5.8		0.0	0.2		20.3		0.0	21.2	
Ref Time Seperate (s)	2.6	0.0		0.1	0.0		18.4		3.7	17.3	
Reference Time (s)	5.8	5.8		0.2	0.2		20.3		21.2	21.2	
Adj Reference Time (s)	9.8	9.8		8.0	8.0		24.3		25.2	25.2	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	10.1		Err		Err						
Split Option (s)	17.8		24.3		25.2						
Minimum (s)	10.1		24.3		25.2		59.5				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization	49.6%			ICU Level of Service					A		
Reference Times and Phasing Options do not represent an optimized timing plan.											

OPENING YEAR 1A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	59	4	12	60	105	0	235	33	88	235	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	268	0	0	352	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 51.7%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	59	4	12	60	105	0	235	33	88	235	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	268	0	0	352	0
Intersection Summary												

OPENING YEAR 1A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A

31: 2nd Ave SE

01/15/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	66	0	0	163	0	0	246	0	0	324	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1865	0	0	1853	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1865		0	383	
Reference Time A (s)	0.0	6.6		0.0	13.3		0.0	15.8		0.0	101.5	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.7	19.3		NA	NA		NA	NA	
Reference Time (s)	6.6			13.3			15.8			101.5		
Adj Reference Time (s)	10.6			17.3			19.8			105.5		
Split Option												
Ref Time Combined (s)	0.0	4.2		0.0	11.3		0.0	15.8		0.0	21.0	
Ref Time Seperate (s)	0.5	3.4		0.7	3.8		0.0	13.9		5.4	13.9	
Reference Time (s)	4.2	4.2		11.3	11.3		15.8	15.8		21.0	21.0	
Adj Reference Time (s)	8.2	8.2		15.3	15.3		19.8	19.8		25.0	25.0	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.3		105.5									
Split Option (s)	23.6		44.8									
Minimum (s)	17.3		44.8		62.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	51.7%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
31: 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	5.6											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Future Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	59	4	12	60	105	0	235	33	88	235	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	760	694	250	709	692	252	264	0	0	268	0	0
Stage 1	426	426	-	252	252	-	-	-	-	-	-	-
Stage 2	334	268	-	457	440	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	323	366	789	349	367	787	1300	-	-	1296	-	-
Stage 1	606	586	-	752	698	-	-	-	-	-	-	-
Stage 2	680	687	-	583	578	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	337	789	283	338	787	1300	-	-	1296	-	-
Mov Cap-2 Maneuver	227	337	-	283	338	-	-	-	-	-	-	-
Stage 1	606	539	-	752	698	-	-	-	-	-	-	-
Stage 2	538	687	-	475	532	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	19		16		0		2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1300	-	-	502	329	1296	-	-				
HCM Lane V/C Ratio	-	-	-	0.353	0.218	0.068	-	-				
HCM Control Delay (s)	0	-	-	16	19	8	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.6	0.8	0.2	-	-				

OPENING YEAR 1A
38: 2nd Ave SE

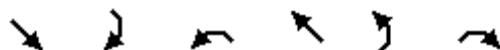
01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.1%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1A

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other

OPENING YEAR 1A

38: 2nd Ave SE

01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Intersection Summary						

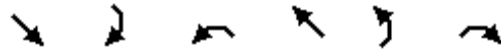


Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1A

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	112	24	20	120	13	12
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	136	0	0	140	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	8.8		0.0	27.9	26.2	
Adj Saturation B (vph)	1850		NA	NA	NA	
Reference Time B (s)	8.8		NA	NA	NA	
Reference Time (s)	8.8			27.9		
Adj Reference Time (s)	12.8			31.9		
Split Option						
Ref Time Combined (s)	8.8		0.0	8.9	1.7	
Ref Time Seperate (s)	7.3		1.3	7.6	0.9	
Reference Time (s)	8.8		8.9	8.9	1.7	
Adj Reference Time (s)	12.8		12.9	12.9	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	31.9		Err			
Split Option (s)	25.7		8.0			
Minimum (s)	25.7		8.0	33.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
38: 2nd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 1.3

Movement SET SER NWL NWT NEL NER

Lane Configurations 

Traffic Vol, veh/h 112 24 20 120 13 12

Future Vol, veh/h 112 24 20 120 13 12

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 122 26 22 130 14 13

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 148 0 309 135

Stage 1 - - - - 135 -

Stage 2 - - - - 174 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1434 - 683 914

Stage 1 - - - - 891 -

Stage 2 - - - - 856 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver - - 1434 - 671 914

Mov Cap-2 Maneuver - - - - 671 -

Stage 1 - - - - 891 -

Stage 2 - - - - 841 -

Approach SE NW NE

HCM Control Delay, s 0 1.1 9.9

HCM LOS A

Minor Lane/Major Mvmt NELn1 NWL NWT SET SER

Capacity (veh/h) 769 1434 - - -

HCM Lane V/C Ratio 0.035 0.015 - - -

HCM Control Delay (s) 9.9 7.5 0 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0.1 0 - - -

OPENING YEAR 1A

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.936	0.865						
Flt Protected					0.996					0.950		
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996					0.950		
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)					30					30		
Link Distance (ft)					480					697		
Travel Time (s)					10.9					5.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)					0					0		
Link Offset(ft)					0					0		
Crosswalk Width(ft)					16					16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.0%											
Analysis Period (min)	15											
ICU Level of Service A												

OPENING YEAR 1A

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Intersection Summary												

OPENING YEAR 1A

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	45	0	0	127	0	0	8	0	0	68	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	2.8		0.0	18.6		0.0	0.6		0.0	67.8	
Adj Saturation B (vph)	0	1900		0	0		0	1615		0	0	
Reference Time B (s)	0.0	2.8		8.7	16.7		0.0	0.6		12.5	12.5	
Reference Time (s)	2.8		16.7			0.6			12.5			
Adj Reference Time (s)	8.0		20.7			8.0			16.5			
Split Option												
Ref Time Combined (s)	0.0	2.8		0.0	8.7		0.0	0.6		0.0	4.5	
Ref Time Seperate (s)	0.0	2.8		0.7	3.9		0.0	0.0		4.5	0.0	
Reference Time (s)	2.8	2.8		8.7	8.7		0.6	0.6		4.5	4.5	
Adj Reference Time (s)	8.0	8.0		12.7	12.7		8.0	8.0		8.5	8.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.7		16.5									
Split Option (s)	20.7		16.5									
Minimum (s)	20.7		16.5		37.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
49: 6th St SE

01/15/2025

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	49	0	11	62	65	0	0	9	74	0	0	
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	216	157	0	178	153	5	0	0	0	9	0	0	
Stage 1	148	148	-	5	5	-	-	-	-	-	-	-	
Stage 2	68	9	-	173	148	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-	
Pot Cap-1 Maneuver	740	735	-	784	739	1078	-	-	-	1611	-	-	
Stage 1	855	775	-	1017	892	-	-	-	-	-	-	-	
Stage 2	942	888	-	829	775	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	626	701	-	-	705	1078	-	-	-	1611	-	-	
Mov Cap-2 Maneuver	626	701	-	-	705	-	-	-	-	-	-	-	
Stage 1	855	739	-	1017	892	-	-	-	-	-	-	-	
Stage 2	824	888	-	739	739	-	-	-	-	-	-	-	
Approach	EB		WB			NB			SB				
HCM Control Delay, s							0			7.3			
HCM LOS	-		-										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	-	-	-	-	-	1611	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	0.046	-	-					
HCM Control Delay (s)	0	-	-	-	-	7.3	0	-					
HCM Lane LOS	A	-	-	-	-	A	A	-					
HCM 95th %tile Q(veh)	-	-	-	-	-	0.1	-	-					

OPENING YEAR 1A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.994				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Flt Permitted		0.976			0.950			0.994				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	0	2	4	0	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	4	0	0	41	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.994				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Flt Permitted		0.976			0.950			0.994				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	0	2	4	0	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	4	0	0	41	0	0	55	0
Intersection Summary												

OPENING YEAR 1A

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	4	0	0	4	0	0	38	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.95	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1714	0	0	1805	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1919		0	1023		0	630		0	1900	
Reference Time A (s)	0.0	0.3		0.0	0.5		0.0	7.2		0.0	3.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	1900	
Reference Time B (s)	8.1	8.3		8.3	8.3		8.3	10.4		0.0	3.2	
Reference Time (s)	0.3			0.5			7.2			3.2		
Adj Reference Time (s)	8.0			8.0			11.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	0.3		0.0	0.3		0.0	2.4		0.0	3.2	
Ref Time Seperate (s)	0.1	0.0		0.3	0.0		0.3	1.9		0.0	3.2	
Reference Time (s)	0.3	0.3		0.3	0.3		2.4	2.4		3.2	3.2	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		11.2									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		11.2		19.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection												
Intersection Delay, s/veh	7.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Future Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	4	0	0	5	33	3	0	55	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	50%	100%	0%
Vol Thru, %	79%	0%	0%	100%
Vol Right, %	8%	50%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	4	4	51
LT Vol	5	2	4	0
Through Vol	30	0	0	51
RT Vol	3	2	0	0
Lane Flow Rate	41	4	4	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.005	0.005	0.061
Departure Headway (Hd)	3.97	3.905	4.305	3.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	904	912	828	902
Service Time	1.984	1.946	2.347	1.992
HCM Lane V/C Ratio	0.045	0.004	0.005	0.061
HCM Control Delay	7.2	7	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	4	434	407	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	0	438	407	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.2%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	3	4	434	407	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	0	438	407	0
Intersection Summary						

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	3	4	399	374	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	3	0	0	403	374	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	1615	0	0	1899	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	108	0		1666	1900	
Reference Time A (s)	3.3	0.0		29.0	23.6	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				29.0	23.6	
Adj Reference Time (s)				33.0	27.6	
Split Option						
Ref Time Combined (s)	0.2	0.0		25.5	23.6	
Ref Time Seperate (s)	0.0	0.3		25.2	23.6	
Reference Time (s)	0.2	25.5		25.5	23.6	
Adj Reference Time (s)	8.0	29.5		29.5	27.6	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	33.0				
Split Option (s)	8.0	57.1				
Minimum (s)	8.0	33.0		41.0		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	34.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
53: IA 136 & 13th Ave SE

01/15/2025

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	4	399	374	0
Future Vol, veh/h	0	3	4	399	374	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	4	434	407	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	849	407	0
Stage 1	407	-	-
Stage 2	442	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	331	644	1152
Stage 1	672	-	-
Stage 2	648	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	329	644	1152
Mov Cap-2 Maneuver	451	-	-
Stage 1	669	-	-
Stage 2	648	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1152	-	644	-	-
HCM Lane V/C Ratio	0.004	-	0.005	-	-
HCM Control Delay (s)	8.1	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Intersection Summary												

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	85	0	0	99	0	0	51	0	0	20	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1770			0	725			0	1633		
Reference Time A (s)	0.0	5.8			0.0	16.4			0.0	3.7		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	8.5	13.5			10.3	14.5			9.3	11.6		
Reference Time (s)	5.8				14.5				3.7			
Adj Reference Time (s)	9.8				18.5				8.0			
Split Option												
Ref Time Combined (s)	0.0	5.5			0.0	6.5			0.0	3.6		
Ref Time Seperate (s)	0.5	4.1			2.3	3.5			1.3	0.1		
Reference Time (s)	5.5	5.5			6.5	6.5			3.6	3.6		
Adj Reference Time (s)	9.5	9.5			10.5	10.5			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.5		8.0									
Split Option (s)	20.0		16.0									
Minimum (s)	18.5		8.0		26.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.0%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	70	14	38	60	10	22	1	33	14	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	84	0	0	240	241	77	253	243	65
Stage 1	-	-	-	-	-	-	95	95	-	141	141	-
Stage 2	-	-	-	-	-	-	145	146	-	112	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1531	-	-	1513	-	-	714	660	984	700	659	999
Stage 1	-	-	-	-	-	-	912	816	-	862	780	-
Stage 2	-	-	-	-	-	-	858	776	-	893	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1531	-	-	1513	-	-	691	639	984	659	638	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	639	-	659	638	-
Stage 1	-	-	-	-	-	-	907	811	-	857	760	-
Stage 2	-	-	-	-	-	-	829	756	-	857	806	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.6			9.6			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	836	1531	-	-	1513	-	-	718				
HCM Lane V/C Ratio	0.066	0.006	-	-	0.025	-	-	0.03				
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1				

OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	0	0	82	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	82	0	0	37	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.9%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	22	0	0	82	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	82	0	0	37	0	0	8	0
Intersection Summary												

OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	20	0	0	75	0	0	34	0	0	7	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Reference Time (s)	1.3		4.7			2.5			0.4			
Adj Reference Time (s)	8.0		8.7			8.0			8.0			
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Ref Time Seperate (s)	0.0	1.3		0.0	4.7		0.0	0.0		0.0	0.4	
Reference Time (s)	1.3	1.3		4.7	4.7		2.5	2.5		0.4	0.4	
Adj Reference Time (s)	8.0	8.0		8.7	8.7		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.7		8.0									
Split Option (s)	16.7		16.0									
Minimum (s)	8.7		8.0		16.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.9%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

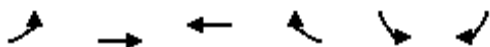
OPENING YEAR 1A
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	0	0	82	0	0	0	37	0	8	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	22	0	0	108	104	22	123	104	82
Stage 1	-	-	-	-	-	-	22	22	-	82	82	-
Stage 2	-	-	-	-	-	-	86	82	-	41	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1515	-	-	1593	-	-	871	786	1055	852	786	978
Stage 1	-	-	-	-	-	-	996	877	-	926	827	-
Stage 2	-	-	-	-	-	-	922	827	-	974	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1593	-	-	865	786	1055	822	786	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	865	786	-	822	786	-
Stage 1	-	-	-	-	-	-	996	877	-	926	827	-
Stage 2	-	-	-	-	-	-	914	827	-	940	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1055	1515	-	-	1593	-	-	786				
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.01				
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.960		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	57	80	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	114	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 15.8%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

01/15/2025



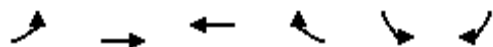
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

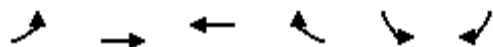
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	2	57	80	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	114	0	44	0
Intersection Summary						

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

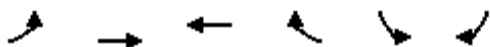
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	2	52	74	31	39	2
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	54	105	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.96	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1816	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1816		120	
Reference Time A (s)	0.0	5.2	6.9		41.1	
Adj Saturation B (vph)	0	0	1816		NA	
Reference Time B (s)	8.1	11.4	6.9		NA	
Reference Time (s)		5.2	6.9			
Adj Reference Time (s)		9.2	10.9			
Split Option						
Ref Time Combined (s)	0.0	3.4	6.9		2.7	
Ref Time Seperate (s)	0.1	3.3	4.9		2.6	
Reference Time (s)	3.4	3.4	6.9		2.7	
Adj Reference Time (s)	8.0	8.0	10.9		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	10.9		Err			
Split Option (s)	18.9		8.0			
Minimum (s)	10.9		8.0		18.9	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		15.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
62: 2nd Ave SE & 7th St SE

01/15/2025

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	74	31	39	2
Future Vol, veh/h	2	52	74	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	57	80	34	42	2
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	158	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1475	-	-	-	833	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1475	-	-	-	832	959
Mov Cap-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	962	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1475	-	-	-	837	
HCM Lane V/C Ratio	0.001	-	-	-	0.053	
HCM Control Delay (s)	7.4	0	-	-	9.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%					ICU Level of Service A						
Analysis Period (min)	15											

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Intersection Summary												

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	41	0	0	30	0	0	0	0	0	12	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	3.8		0.0	2.4		0.0	0.0		0.0	1.1	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.5	10.6		8.3	9.9		0.0	0.0		8.4	8.8	
Reference Time (s)	3.8				2.4		0.0				1.1	
Adj Reference Time (s)	8.0				8.0		8.0				8.0	
Split Option												
Ref Time Combined (s)	0.0	2.6		0.0	1.9		0.0	0.0		0.0	0.8	
Ref Time Seperate (s)	0.5	2.0		0.3	1.4		0.0	0.0		0.4	0.0	
Reference Time (s)	2.6	2.6		1.9	1.9		0.0	0.0		0.8	0.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	34	3	4	24	4	0	0	0	7	0	7
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	32	18	4	36	21	0	7	0	0	0	0	0
Stage 1	18	18	-	0	0	-	-	-	-	-	-	-
Stage 2	14	0	-	36	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	876	1080	970	873	-	1614	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	980	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	876	1080	939	873	-	1614	-	-	-	-	-
Mov Cap-2 Maneuver	-	876	-	939	873	-	-	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	940	878	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0											
HCM LOS	-			-								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1614	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.995			0.979			0.919	
Flt Protected		0.977			0.996			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1846	0	0	1773	0	0	1686	0
Flt Permitted		0.877			0.984			0.902			0.942	
Satd. Flow (perm)	0	1622	0	0	1824	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	45	5	5	53	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	60	0	0	19	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.14			0.08			0.03			0.08	
Control Delay		9.0			8.6			7.8			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			8.6			7.8			4.5	

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.0			8.6			7.8			4.5	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.7

Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%				0%			
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.995			0.979			0.919	
Flt Protected		0.977			0.996			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1846	0	0	1773	0	0	1686	0
Flt Permitted		0.877			0.984			0.902			0.942	
Satd. Flow (perm)	0	1622	0	0	1824	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

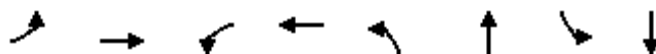
OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	43	45	5	5	53	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	60	0	0	19	0	0	55	0
Intersection Summary												

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	49	10	5	16	5
Future Volume (vph)	40	41	5	49	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.14		0.08		0.03		0.08
Control Delay		9.0		8.6		7.8		4.5
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.0		8.6		7.8		4.5
LOS		A		A		A		A
Approach Delay		9.0		8.6		7.8		4.5
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.7

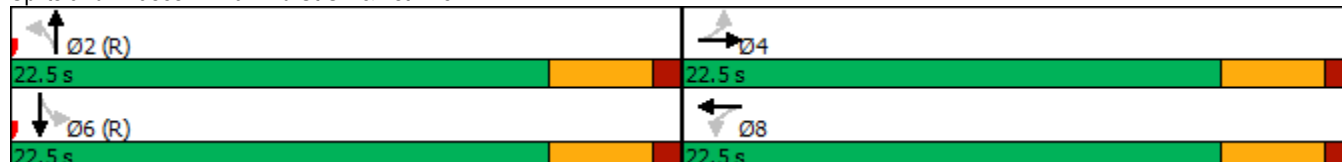
Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

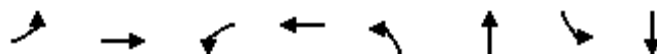
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

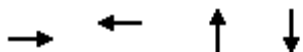
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	93	60	19	55
v/c Ratio	0.14	0.08	0.03	0.08
Control Delay	9.0	8.6	7.8	4.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	8.6	7.8	4.5
Queue Length 50th (ft)	14	9	2	2
Queue Length 95th (ft)	35	25	11	m14
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	651	730	659	665
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.03	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	86	0	0	56	0	0	18	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1881	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	566		0	1859		0	1036		0	1603	
Reference Time A (s)	0.0	18.2		0.0	3.6		0.0	2.1		0.0	3.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	10.7	13.6		8.3	11.6		8.7	9.2		9.1	11.6	
Reference Time (s)	13.6			3.6			2.1			3.8		
Adj Reference Time (s)	18.1			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	5.6		0.0	3.6		0.0	1.2		0.0	3.6	
Ref Time Seperate (s)	2.7	2.6		0.3	3.1		0.7	0.3		1.1	0.4	
Reference Time (s)	5.6	5.6		3.6	3.6		1.2	1.2		3.6	3.6	
Adj Reference Time (s)	10.1	10.1		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.1		9.5									
Split Option (s)	19.6		19.0									
Minimum (s)	18.1		9.5		27.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	53	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	356	35	107	691	25	447	195	97	250	107	379
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	634	889	87	51	1728	61	803	489	242	363	269	948
Grp Volume(v), veh/h	93	0	0	60	0	0	19	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1610	0	0	1840	0	0	1533	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.9	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	0.46		0.05	0.08		0.03	0.58		0.16	0.31		0.60
Lane Grp Cap(c), veh/h	761	0	0	823	0	0	740	0	0	737	0	0
V/C Ratio(X)	0.12	0.00	0.00	0.07	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	761	0	0	823	0	0	740	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	8.4	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		93			60			19			55	
Approach Delay, s/veh		8.9			8.5			8.2			8.6	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.3		3.4		2.9		2.9				
Green Ext Time (p_c), s		0.0		0.3		0.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.7								
HCM 6th LOS				A								

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	53	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	371	356	35	107	691	25	447	195	97	250	107	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	8.9	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	93			60			19			55		
Approach Delay, s/veh	8.9			8.5			8.2			8.6		
Approach LOS	A			A			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	8.0			8.0			8.0			8.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.3			5.3			5.5			5.3		
Max Q Clear (g_c+I1), s	2.3			3.4			2.9			2.9		
Green Ext Time (g_e), s	0.0			0.3			0.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	803			634			363			51		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	489			889			269			1728		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	242			87			948			61		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R			L+T+R			L+T+R			L+T+R		

OPENING YEAR 1A
70: 2nd St SE & 1st Ave E

01/15/2025

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	19	0	93	0	55	0	60
Grp Sat Flow (s), veh/h/ln	0	1533	0	1610	0	1580	0	1840
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1391	0	1370	0	1430	0	1376
Shared LT Sat Flow (s_sh), veh/h/ln	0	1818	0	1828	0	1842	0	1863
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.1	0.0	17.1	0.0	17.7	0.0	16.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.5	0.0	2.3	0.0	4.3	0.0	11.9
Serve Time pre Blk (g_fs), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	0.58	0.00	0.46	0.00	0.31	0.00	0.08
Lane Grp Cap (c), veh/h	0	740	0	761	0	737	0	823
V/C Ratio (X)	0.00	0.03	0.00	0.12	0.00	0.07	0.00	0.07
Avail Cap (c_a), veh/h	0	740	0	761	0	737	0	823
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.5	0.0	8.4	0.0	8.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	8.9	0.0	8.6	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.05	0.00	0.60	0.00	0.03
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

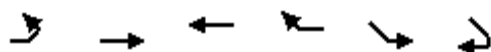
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.79	1.76	1.71	1.75
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	93	60	19	55
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.08	2.03	1.96	2.02
Bicycle LOS	B	B	B	B

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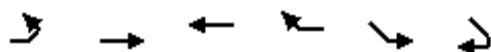


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	188	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	188	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 12.4%				ICU Level of Service A		
Analysis Period (min) 15						

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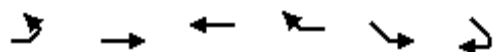
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Intersection Summary						

Area Type: Other

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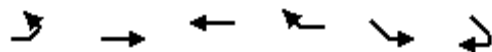


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	188	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	188	0	0	0	0
Intersection Summary						

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01/15/2025

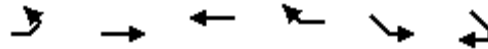


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	173	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	173	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	10.9	0.0	0.0		0.0
Adj Reference Time (s)	0.0	14.9	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	10.9	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	10.9	NA		NA	
Reference Time (s)		10.9	0.0			
Adj Reference Time (s)		14.9	8.0			
Split Option						
Ref Time Combined (s)	0.0	10.9	0.0		0.0	
Ref Time Seperate (s)	0.0	10.9	0.0		0.0	
Reference Time (s)	10.9	10.9	0.0		0.0	
Adj Reference Time (s)	14.9	14.9	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	14.9		NA			
Permitted Option (s)	14.9		Err			
Split Option (s)	14.9		0.0			
Minimum (s)	14.9		0.0	14.9		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		12.4%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.957			0.930			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	25	10	25	30	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	81	0	0	46	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.957			0.930			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

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79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	25	10	25	30	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	81	0	0	46	0	0	77	0
Intersection Summary												

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79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	50	0	0	75	0	0	42	0	0	71	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1815	0	0	1781	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1291		0	1438		0	1567		0	1102	
Reference Time A (s)	0.0	4.6		0.0	6.3		0.0	3.2		0.0	7.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.2	11.3		9.5	13.1		8.9	10.9		10.5	12.8	
Reference Time (s)	4.6			6.3			3.2			7.7		
Adj Reference Time (s)	8.6			10.3			8.0			11.7		
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	5.1		0.0	2.9		0.0	4.8	
Ref Time Seperate (s)	1.2	1.5		1.5	1.9		0.9	0.4		2.5	1.0	
Reference Time (s)	3.3	3.3		5.1	5.1		2.9	2.9		4.8	4.8	
Adj Reference Time (s)	8.0	8.0		9.1	9.1		8.0	8.0		8.8	8.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		11.7									
Split Option (s)	17.1		16.8									
Minimum (s)	10.3		11.7		22.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.3%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

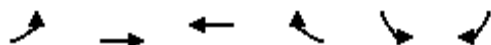
OPENING YEAR 1A
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Future Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	25	10	25	30	26	15	7	24	40	16	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	35	0	0	182	176	30	179	168	43
Stage 1	-	-	-	-	-	-	70	70	-	93	93	-
Stage 2	-	-	-	-	-	-	112	106	-	86	75	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1576	-	-	779	717	1044	783	725	1027
Stage 1	-	-	-	-	-	-	940	837	-	914	818	-
Stage 2	-	-	-	-	-	-	893	807	-	922	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1576	-	-	733	696	1044	743	704	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	733	696	-	743	704	-
Stage 1	-	-	-	-	-	-	928	826	-	902	805	-
Stage 2	-	-	-	-	-	-	844	794	-	882	822	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.6			2.2			9.4			10		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	861	1549	-	-	1576	-	-	792				
HCM Lane V/C Ratio	0.053	0.013	-	-	0.016	-	-	0.097				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	10				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3				

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.0%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

01/15/2025



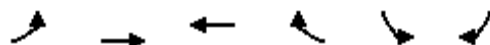
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

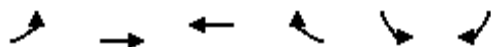
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Intersection Summary						

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

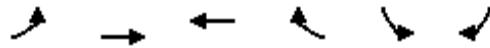
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	13	50	44	25	8	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	63	69	0	32	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	16.6	4.6		34.6	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	8.9	12.0	4.6		NA	
Reference Time (s)		12.0	4.6			
Adj Reference Time (s)		16.0	8.6			
Split Option						
Ref Time Combined (s)	0.0	4.0	4.6		2.3	
Ref Time Seperate (s)	0.9	3.2	2.9		0.6	
Reference Time (s)	4.0	4.0	4.6		2.3	
Adj Reference Time (s)	8.0	8.0	8.6		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	16.0		Err			
Split Option (s)	16.6		8.0			
Minimum (s)	16.0		8.0		24.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
80: Beltline Rd & 8th St NW

01/15/2025

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	54	48	27	9	26

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	75	0	0 144 62
Stage 1	-	-	- 62 -
Stage 2	-	-	- 82 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1524	-	- 849 1003
Stage 1	-	-	- 961 -
Stage 2	-	-	- 941 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1524	-	- 841 1003
Mov Cap-2 Maneuver	-	-	- 841 -
Stage 1	-	-	- 952 -
Stage 2	-	-	- 941 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1524	-	-	-	957
HCM Lane V/C Ratio	0.009	-	-	-	0.036
HCM Control Delay (s)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.963			0.939			0.937	
Flt Protected		0.998			0.994			0.978			0.977	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Flt Permitted		0.998			0.994			0.978			0.977	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	13	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.963			0.939			0.937	
Flt Protected		0.998			0.994			0.978			0.977	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Flt Permitted		0.998			0.994			0.978			0.977	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	13	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	28	0
Intersection Summary												

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	106	0	0	11	0	0	26	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1728	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1732		0	1010		0	1373		0	1353	
Reference Time A (s)	0.0	5.8		0.0	12.6		0.0	1.0		0.0	2.3	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.2	13.3		8.8	15.0		8.3	8.8		8.8	9.8	
Reference Time (s)	5.8			12.6			1.0			2.3		
Adj Reference Time (s)	9.8			16.6			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	7.0		0.0	0.8		0.0	1.8	
Ref Time Seperate (s)	0.2	5.0		0.8	4.3		0.3	0.1		0.8	0.1	
Reference Time (s)	5.3	5.3		7.0	7.0		0.8	0.8		1.8	1.8	
Adj Reference Time (s)	9.3	9.3		11.0	11.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.6		8.0									
Split Option (s)	20.3		16.0									
Minimum (s)	16.6		8.0		24.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	20.5%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	86	1	13	71	32	5	1	5	13	2	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	87	0	0	214	222	87	209	206	87
Stage 1	-	-	-	-	-	-	93	93	-	113	113	-
Stage 2	-	-	-	-	-	-	121	129	-	96	93	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1489	-	-	1509	-	-	743	677	971	748	691	971
Stage 1	-	-	-	-	-	-	914	818	-	892	802	-
Stage 2	-	-	-	-	-	-	883	789	-	911	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1509	-	-	725	670	971	737	683	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	670	-	737	683	-
Stage 1	-	-	-	-	-	-	912	816	-	890	795	-
Stage 2	-	-	-	-	-	-	861	782	-	903	816	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.5			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	813	1489	-	-	1509	-	-	824				
HCM Lane V/C Ratio	0.015	0.002	-	-	0.009	-	-	0.034				
HCM Control Delay (s)	9.5	7.4	0	-	7.4	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.979			0.940			0.940	
Flt Protected		0.989			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Flt Permitted		0.989			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	25	12	12	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	64	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.979			0.940			0.940	
Flt Protected		0.989			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Flt Permitted		0.989			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	25	12	12	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	64	0	0	36	0	0	36	0
Intersection Summary												

OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	43	0	0	59	0	0	33	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1808	0	0	1839	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	1296			0	1423			0	1099		
Reference Time A (s)	0.0	4.0			0.0	5.0			0.0	3.6		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	8.6	10.9			8.7	11.8			9.2	10.3		
Reference Time (s)	4.0				5.0				3.6			
Adj Reference Time (s)	8.0				9.0				8.0			
Split Option												
Ref Time Combined (s)	0.0	2.9			0.0	3.8			0.0	2.3		
Ref Time Seperate (s)	0.6	1.5			0.7	2.5			1.2	0.0		
Reference Time (s)	2.9	2.9			3.8	3.8			2.3	2.3		
Adj Reference Time (s)	8.0	8.0			8.0	8.0			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	9.0		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	9.0		8.0		17.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.1%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

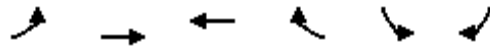
OPENING YEAR 1A
96: 5th St NW & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	25	12	12	42	10	20	0	16	13	7	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	37	0	0	134	127	31	130	128	47
Stage 1	-	-	-	-	-	-	51	51	-	71	71	-
Stage 2	-	-	-	-	-	-	83	76	-	59	57	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1574	-	-	838	764	1043	843	763	1022
Stage 1	-	-	-	-	-	-	962	852	-	939	836	-
Stage 2	-	-	-	-	-	-	925	832	-	953	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1574	-	-	810	753	1043	820	752	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	753	-	820	752	-
Stage 1	-	-	-	-	-	-	955	846	-	932	829	-
Stage 2	-	-	-	-	-	-	896	825	-	932	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			1.4			9.2			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	902	1554	-	-	1574	-	-	885				
HCM Lane V/C Ratio	0.04	0.006	-	-	0.008	-	-	0.041				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	78	75	12	13	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	136	87	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 24.1%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

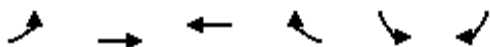
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	58	78	75	12	13	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	136	87	0	73	0
Intersection Summary						

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

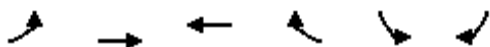
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	53	72	69	11	12	55
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	125	80	0	67	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.98	0.85	0.87	0.85
Saturated Flow (vph)	0	1860	1861	0	1651	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	245	1861		110	
Reference Time A (s)	0.0	61.2	5.2		73.0	
Adj Saturation B (vph)	0	0	1861		NA	
Reference Time B (s)	11.5	16.1	5.2		NA	
Reference Time (s)		16.1	5.2			
Adj Reference Time (s)		20.1	9.2			
Split Option						
Ref Time Combined (s)	0.0	8.1	5.2		4.9	
Ref Time Seperate (s)	3.5	4.5	4.4		0.9	
Reference Time (s)	8.1	8.1	5.2		4.9	
Adj Reference Time (s)	12.1	12.1	9.2		8.9	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	20.1		Err			
Split Option (s)	21.2		8.9			
Minimum (s)	20.1		8.9		28.9	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		24.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
101: 1st Ave E & Beltline Rd

01/15/2025

Intersection

Int Delay, s/veh 3.8

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	53	72	69	11	12	55
Future Vol, veh/h	53	72	69	11	12	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	78	75	12	13	60

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	87	0	-	0	275	81
Stage 1	-	-	-	-	81	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1509	-	-	-	715	979
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	686	979
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	839	-

Approach EB WB SB

HCM Control Delay, s	3.2	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1509	-	-	-	909
HCM Lane V/C Ratio	0.038	-	-	-	0.08
HCM Control Delay (s)	7.5	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.966			0.919			0.996	
Flt Protected		0.992			0.968			0.998			0.985	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Flt Permitted		0.992			0.968			0.998			0.985	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	76	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.966			0.919			0.996	
Flt Protected		0.992			0.968			0.998			0.985	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Flt Permitted		0.992			0.968			0.998			0.985	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	76	0
Intersection Summary												

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	12	0	0	97	0	0	114	0	0	70	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1863	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1802		0	579		0	1693		0	544	
Reference Time A (s)	0.0	0.8		0.0	20.1		0.0	8.1		0.0	15.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.1	8.8		12.3	14.6		8.3	15.9		9.4	12.5	
Reference Time (s)	0.8			14.6			8.1			12.5		
Adj Reference Time (s)	8.0			18.6			12.1			16.5		
Split Option												
Ref Time Combined (s)	0.0	0.8		0.0	6.6		0.0	7.9		0.0	4.5	
Ref Time Seperate (s)	0.1	0.3		4.3	0.5		0.3	2.9		1.4	3.0	
Reference Time (s)	0.8	0.8		6.6	6.6		7.9	7.9		4.5	4.5	
Adj Reference Time (s)	8.0	8.0		10.6	10.6		11.9	11.9		8.5	8.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		16.5									
Split Option (s)	18.6		20.4									
Minimum (s)	18.6		16.5		35.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.3%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
102: 3rd St SW & 3rd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	5	71	8	27	4	46	74	23	51	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	207	226	52	194	190	83	53	0	0	120	0	0
Stage 1	98	98	-	91	91	-	-	-	-	-	-	-
Stage 2	109	128	-	103	99	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	751	673	1016	765	705	976	1553	-	-	1468	-	-
Stage 1	908	814	-	916	820	-	-	-	-	-	-	-
Stage 2	896	790	-	903	813	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	713	660	1016	745	692	976	1553	-	-	1468	-	-
Mov Cap-2 Maneuver	713	660	-	745	692	-	-	-	-	-	-	-
Stage 1	905	801	-	913	818	-	-	-	-	-	-	-
Stage 2	860	788	-	878	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.3	0.3	2.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	784 789	1468	-	-
HCM Lane V/C Ratio	0.003	-	-	0.017 0.134	0.016	-	-
HCM Control Delay (s)	7.3	0	-	9.7 10.3	7.5	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.5	0	-	-

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	27	11	35	26	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	85	0	0	46	78	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 20.0% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	58	27	11	35	26	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	85	0	0	46	78	0
Intersection Summary						

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	53	25	10	32	24	48
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	78	0	0	42	72	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1747	0	0	1877	1710	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	116		0	404	1710	
Reference Time A (s)	80.4		0.0	12.5	5.1	
Adj Saturation B (vph)	NA		0	0	1710	
Reference Time B (s)	NA		8.7	10.7	5.1	
Reference Time (s)				10.7	5.1	
Adj Reference Time (s)				14.7	9.1	
Split Option						
Ref Time Combined (s)	5.4		0.0	2.7	5.1	
Ref Time Seperate (s)	3.6		0.7	2.0	1.7	
Reference Time (s)	5.4		2.7	2.7	5.1	
Adj Reference Time (s)	9.4		8.0	8.0	9.1	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		14.7			
Split Option (s)	9.4		17.1			
Minimum (s)	9.4		14.7		24.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 4.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 53 25 10 32 24 48

Future Vol, veh/h 53 25 10 32 24 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 58 27 11 35 26 52

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 109 52 78 0 - 0

Stage 1 52 - - - - -

Stage 2 57 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 888 1016 1520 - - -

Stage 1 970 - - - - -

Stage 2 966 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 882 1016 1520 - - -

Mov Cap-2 Maneuver 882 - - - - -

Stage 1 963 - - - - -

Stage 2 966 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.3 1.8 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1520 - 921 - -

HCM Lane V/C Ratio 0.007 - 0.092 - -

HCM Control Delay (s) 7.4 0 9.3 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.3 - -

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	45	27	84	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	112	0	0	63	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 22.8%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	65	45	27	84	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	112	0	0	63	0	0	2	0
Intersection Summary												

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	101	0	0	103	0	0	58	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.99	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1784	0	0	1874	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1784	0	397	0	1443	0	1233				
Reference Time A (s)	0.0	6.8	0.0	31.1	0.0	4.8	0.0	0.2				
Adj Saturation B (vph)	0	1784	0	0	0	0	0	0				
Reference Time B (s)	0.0	6.8	9.7	14.6	9.6	12.1	8.1	8.1				
Reference Time (s)	6.8		14.6		4.8		0.2					
Adj Reference Time (s)	10.8		18.6		8.8		8.0					
Split Option												
Ref Time Combined (s)	0.0	6.8	0.0	6.6	0.0	4.1	0.0	0.1				
Ref Time Seperate (s)	0.0	4.0	1.7	4.9	1.6	0.0	0.1	0.0				
Reference Time (s)	6.8	6.8	6.6	6.6	4.1	4.1	0.1	0.1				
Adj Reference Time (s)	10.8	10.8	10.6	10.6	8.1	8.1	8.0	8.0				
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		8.8									
Split Option (s)	21.4		16.1									
Minimum (s)	18.6		8.8		27.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	45	27	84	1	26	0	37	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	85	0	0	110	0	0	227	227	88	245	249	85
Stage 1	-	-	-	-	-	-	88	88	-	139	139	-
Stage 2	-	-	-	-	-	-	139	139	-	106	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1512	-	-	1480	-	-	728	672	970	709	654	974
Stage 1	-	-	-	-	-	-	920	822	-	864	782	-
Stage 2	-	-	-	-	-	-	864	782	-	900	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1480	-	-	716	659	970	672	642	974
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	659	-	672	642	-
Stage 1	-	-	-	-	-	-	920	822	-	864	767	-
Stage 2	-	-	-	-	-	-	847	767	-	866	804	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			9.6			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	846	1512	-	-	1480	-	-	795				
HCM Lane V/C Ratio	0.075	-	-	-	0.018	-	-	0.003				
HCM Control Delay (s)	9.6	0	-	-	7.5	0	-	9.5				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0				

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997						0.865			0.894	
Flt Protected		0.980									0.989	
Satd. Flow (prot)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.980									0.989	
Satd. Flow (perm)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	72	3	0	50	0	0	0	3	8	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	50	0	0	3	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997						0.865			0.894	
Flt Protected		0.980									0.989	
Satd. Flow (prot)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.980									0.989	
Satd. Flow (perm)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	53	72	3	0	50	0	0	0	3	8	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	50	0	0	3	0	0	37	0
Intersection Summary												

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	46	0	0	3	0	0	34	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	0.87	0.85
Saturated Flow (vph)	0	1853	0	0	1900	0	0	1615	0	0	1656	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	249			0	1900			0	1615		
Reference Time A (s)	0.0	57.0			0.0	2.9			0.0	0.2		
Adj Saturation B (vph)	0	0			0	1900			0	1615		
Reference Time B (s)	11.3	15.6			0.0	2.9			0.0	0.2		
Reference Time (s)	15.6				2.9				0.2			
Adj Reference Time (s)	19.6				8.0				8.0			
Split Option												
Ref Time Combined (s)	0.0	7.6			0.0	2.9			0.0	0.2		
Ref Time Seperate (s)	3.3	4.2			0.0	2.9			0.0	0.0		
Reference Time (s)	7.6	7.6			2.9	2.9			0.2	0.2		
Adj Reference Time (s)	11.6	11.6			8.0	8.0			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.6		14.2									
Split Option (s)	19.6		16.0									
Minimum (s)	19.6		14.2		33.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	28.2%			ICU Level of Service						A		
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	66	3	0	46	0	0	0	3	7	0	27
Future Vol, veh/h	49	66	3	0	46	0	0	0	3	7	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	72	3	0	50	0	0	0	3	8	0	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	50	0	0	75	0	0	245	230	74	231	231	50
Stage 1	-	-	-	-	-	-	180	180	-	50	50	-
Stage 2	-	-	-	-	-	-	65	50	-	181	181	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1557	-	-	1524	-	-	709	670	988	724	669	1018
Stage 1	-	-	-	-	-	-	822	750	-	963	853	-
Stage 2	-	-	-	-	-	-	946	853	-	821	750	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1524	-	-	669	646	988	702	645	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	669	646	-	702	645	-
Stage 1	-	-	-	-	-	-	792	723	-	928	853	-
Stage 2	-	-	-	-	-	-	919	853	-	789	723	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.1			0			8.7			9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	988	1557	-	-	1524	-	-	932				
HCM Lane V/C Ratio	0.003	0.034	-	-	-	-	-	0.04				
HCM Control Delay (s)	8.7	7.4	0	-	0	-	-	9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1				

OPENING YEAR 1A

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't					0.895						0.926	
Flt Protected					0.989			0.995				
Satd. Flow (prot)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Flt Permitted					0.989			0.995				
Satd. Flow (perm)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	13	0	46	14	115	0	0	80	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	59	0	0	129	0	0	178	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1A

111: 330th Ave

01/15/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)	0%			0%			0%			0%			
Storage Length (ft)	0		0	0		0	0		0	0		0	
Storage Lanes	0		0	0		0	0		0	0		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Ped Bike Factor													
Frt					0.895								0.926
Flt Protected					0.989					0.995			
Satd. Flow (prot)	0	0	0	0	1649	0	0	1853	0	0	1725	0	
Flt Permitted					0.989					0.995			
Satd. Flow (perm)	0	0	0	0	1649	0	0	1853	0	0	1725	0	
Link Speed (mph)					30					30			
Link Distance (ft)					364					4320			
Travel Time (s)					8.3					49.1			
Intersection Summary													
Area Type:	Other												

OPENING YEAR 1A

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	13	0	46	14	115	0	0	80	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	59	0	0	129	0	0	178	0
Intersection Summary												

OPENING YEAR 1A

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	54	0	0	119	0	0	164	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.87	0.85	0.95	0.99	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	0	0	0	1660	0	0	1890	0	0	1744	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	378		0	722		0	1744	
Reference Time A (s)	0.0	0.0		0.0	17.2		0.0	19.8		0.0	11.3	
Adj Saturation B (vph)	0	0		0	0		NA	NA		0	1744	
Reference Time B (s)	0.0	0.0		8.8	11.9		NA	NA		0.0	11.3	
Reference Time (s)	0.0			11.9			19.8			11.3		
Adj Reference Time (s)	8.0			15.9			23.8			15.3		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	3.9		0.0	7.6		0.0	11.3	
Ref Time Seperate (s)	0.0	0.0		0.8	0.0		0.9	6.7		0.0	5.1	
Reference Time (s)	0.0	0.0		3.9	3.9		7.6	7.6		11.3	11.3	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		11.6	11.6		15.3	15.3	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.9		23.8									
Split Option (s)	8.0		26.8									
Minimum (s)	8.0		23.8		31.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	26.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Future Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	0	46	14	115	0	0	80	98
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				272	321	115	178	0	-	-	-	0
Stage 1				143	143	-	-	-	-	-	-	-
Stage 2				129	178	-	-	-	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				717	596	937	1398	-	0	0	-	-
Stage 1				884	779	-	-	-	0	0	-	-
Stage 2				897	752	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				709	0	937	1398	-	-	-	-	-
Mov Cap-2 Maneuver				709	0	-	-	-	-	-	-	-
Stage 1				874	0	-	-	-	-	-	-	-
Stage 2				897	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				9.4		0.8		0				
HCM LOS				A								
Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR							
Capacity (veh/h)	1398	-	875	-	-							
HCM Lane V/C Ratio	0.01	-	0.067	-	-							
HCM Control Delay (s)	7.6	0	9.4	-	-							
HCM Lane LOS	A	A	A	-	-							
HCM 95th %tile Q(veh)	0	-	0.2	-	-							

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	17	142	119	20	78
Future Volume (vph)	64	17	142	119	20	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972		0.938			
Flt Protected	0.962					0.990
Satd. Flow (prot)	1742	0	1747	0	0	1844
Flt Permitted	0.962					0.990
Satd. Flow (perm)	1742	0	1747	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	18	154	129	22	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	283	0	0	107
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.6%
Analysis Period (min)	15
	ICU Level of Service A

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.972		0.938			
Flt Protected	0.962					0.990
Satd. Flow (prot)	1742	0	1747	0	0	1844
Flt Permitted	0.962					0.990
Satd. Flow (perm)	1742	0	1747	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	64	17	142	119	20	78
Future Volume (vph)	64	17	142	119	20	78
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	70	18	154	129	22	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	283	0	0	107
Intersection Summary						

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	64	17	142	119	20	78
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	81	0	261	0	0	98
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.93	0.85	0.93	0.85	0.95	0.99
Saturated Flow (vph)	1767	0	1770	0	0	1881
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	118		1770		0	458
Reference Time A (s)	82.5		17.7		0.0	25.7
Adj Saturation B (vph)	NA		1770		NA	NA
Reference Time B (s)	NA		17.7		NA	NA
Reference Time (s)			17.7			25.7
Adj Reference Time (s)			21.7			29.7
Split Option						
Ref Time Combined (s)	5.5		17.7		0.0	6.3
Ref Time Seperate (s)	4.3		9.6		1.3	4.9
Reference Time (s)	5.5		17.7		6.3	6.3
Adj Reference Time (s)	9.5		21.7		10.3	10.3
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		29.7			
Split Option (s)	9.5		31.9			
Minimum (s)	9.5		29.7		39.2	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	32.6%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	17	142	119	20	78
Future Vol, veh/h	64	17	142	119	20	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	18	154	129	22	85

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	348 219	0	0 283
Stage 1	219 -	-	- -
Stage 2	129 -	-	- -
Critical Hdwy	6.42 6.22	-	- 4.12
Critical Hdwy Stg 1	5.42 -	-	- -
Critical Hdwy Stg 2	5.42 -	-	- -
Follow-up Hdwy	3.518 3.318	-	- 2.218
Pot Cap-1 Maneuver	649 821	-	- 1279
Stage 1	817 -	-	- -
Stage 2	897 -	-	- -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	637 821	-	- 1279
Mov Cap-2 Maneuver	637 -	-	- -
Stage 1	817 -	-	- -
Stage 2	881 -	-	- -

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 668	1279	-
HCM Lane V/C Ratio	-	- 0.132	0.017	-
HCM Control Delay (s)	-	- 11.2	7.9	0
HCM Lane LOS	-	- B	A	A
HCM 95th %tile Q(veh)	-	- 0.5	0.1	-

OPENING YEAR 1A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.944				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	96	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.9%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.944				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	96	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	98	0
Intersection Summary												

OPENING YEAR 1A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	0	0	0	11	0	0	90	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1807	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	123			0	0			0	1770	0	122
Reference Time A (s)	0.0	114.9			0.0	0.0			0.0	0.7	0.0	88.4
Adj Saturation B (vph)	0	0			0	0			0	1770	0	0
Reference Time B (s)	15.5	15.9			0.0	0.0			0.0	0.7	13.9	14.0
Reference Time (s)	15.9				0.0				0.7		14.0	
Adj Reference Time (s)	19.9				8.0				8.0		18.0	
Split Option												
Ref Time Combined (s)	0.0	7.9			0.0	0.0			0.0	0.7	0.0	6.0
Ref Time Seperate (s)	7.5	0.0			0.0	0.0			0.0	0.4	5.9	0.1
Reference Time (s)	7.9	7.9			0.0	0.0			0.7	0.7	6.0	6.0
Adj Reference Time (s)	11.9	11.9			0.0	0.0			8.0	8.0	10.0	10.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.9		18.0									
Split Option (s)	11.9		18.0									
Minimum (s)	11.9		18.0		29.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.9%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
118: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	8.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	0	5	0	0	0	0	7	5	96	2	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	204	206	2	-	0	0	12	0	0
Stage 1	194	194	-	-	-	-	-	-	-
Stage 2	10	12	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	784	691	1082	0	-	-	1607	-	0
Stage 1	839	740	-	0	-	-	-	-	0
Stage 2	1013	886	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	737	0	1082	-	-	-	1607	-	-
Mov Cap-2 Maneuver	737	0	-	-	-	-	-	-	-
Stage 1	839	0	-	-	-	-	-	-	-
Stage 2	952	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	0	7.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	747	1607	-
HCM Lane V/C Ratio	-	-	0.172	0.06	-
HCM Control Delay (s)	-	-	10.8	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.971			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	3	4	1	65	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	84	0	0	24	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 16.3%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.971			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	3	4	1	65	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	84	0	0	24	0	0	16	0
Intersection Summary												

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	78	0	0	23	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1837	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	237		0	1839		0	829		0	1839	
Reference Time A (s)	0.0	7.6		0.0	5.1		0.0	3.3		0.0	1.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	9.0		8.1	13.1		9.0	9.5		8.3	9.0	
Reference Time (s)	7.6			5.1			3.3			1.0		
Adj Reference Time (s)	11.6			9.1			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	5.1		0.0	1.5		0.0	1.0	
Ref Time Seperate (s)	0.5	0.2		0.1	3.9		1.0	0.3		0.3	0.6	
Reference Time (s)	1.0	1.0		5.1	5.1		1.5	1.5		1.0	1.0	
Adj Reference Time (s)	8.0	8.0		9.1	9.1		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.6		8.0									
Split Option (s)	17.1		16.0									
Minimum (s)	11.6		8.0		19.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	4	1	65	18	16	4	4	4	10	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	7	0	0	105	108	5	103	101	74
Stage 1	-	-	-	-	-	-	23	23	-	76	76	-
Stage 2	-	-	-	-	-	-	82	85	-	27	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1614	-	-	875	782	1078	877	789	988
Stage 1	-	-	-	-	-	-	995	876	-	933	832	-
Stage 2	-	-	-	-	-	-	926	824	-	990	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1514	-	-	1614	-	-	860	777	1078	865	783	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	860	777	-	865	783	-
Stage 1	-	-	-	-	-	-	989	871	-	927	831	-
Stage 2	-	-	-	-	-	-	912	823	-	975	869	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.9			0.1			9.2			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	875	1514	-	-	1614	-	-	827				
HCM Lane V/C Ratio	0.029	0.006	-	-	0.001	-	-	0.02				
HCM Control Delay (s)	9.2	7.4	0	-	7.2	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.985			0.932			0.972	
Flt Protected		0.978			0.998			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	10	1	23	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	27	0	0	32	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.985			0.932			0.972	
Flt Protected		0.978			0.998			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	16	10	1	23	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	27	0	0	32	0	0	19	0
Intersection Summary												

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	44	0	0	25	0	0	29	0	0	18	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1862	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	386		0	1856		0	1701		0	785	
Reference Time A (s)	0.0	13.7		0.0	1.6		0.0	2.0		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.3	10.9		8.1	9.6		8.4	10.0		8.7	9.2	
Reference Time (s)	10.9			1.6			2.0			2.8		
Adj Reference Time (s)	14.9			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	1.6		0.0	2.0		0.0	1.2	
Ref Time Seperate (s)	1.3	1.0		0.1	1.4		0.4	0.6		0.7	0.3	
Reference Time (s)	2.9	2.9		1.6	1.6		2.0	2.0		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.9		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	14.9		8.0		22.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	16	10	1	23	3	7	9	16	11	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	4%	56%
Vol Thru, %	28%	34%	84%	22%
Vol Right, %	52%	20%	12%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	25	18
LT Vol	6	20	1	10
Through Vol	8	15	21	4
RT Vol	15	9	3	4
Lane Flow Rate	32	48	27	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.053	0.03	0.022
Departure Headway (Hd)	3.81	4.011	3.994	4.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	937	893	895	878
Service Time	1.845	2.035	2.023	2.102
HCM Lane V/C Ratio	0.034	0.054	0.03	0.023
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 22.4%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Intersection Summary												

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	92	0	0	5	0	0	68	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1745		0	710		0	451		0	1953	
Reference Time A (s)	0.0	6.3		0.0	0.8		0.0	18.1		0.0	0.9	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.1	14.3		8.2	8.3		11.5	12.6		8.1	9.0	
Reference Time (s)	6.3			0.8			12.6			0.9		
Adj Reference Time (s)	10.3			8.0			16.6			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.3		0.0	0.3		0.0	4.6		0.0	1.0	
Ref Time Seperate (s)	1.1	2.1		0.2	0.1		3.5	0.4		0.1	0.8	
Reference Time (s)	6.3	6.3		0.3	0.3		4.6	4.6		1.0	1.0	
Adj Reference Time (s)	10.3	10.3		8.0	8.0		8.6	8.6		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		16.6									
Split Option (s)	18.3		16.6									
Minimum (s)	10.3		16.6		26.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.4%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
126: 3rd Ave SE & 4th St SE

01/15/2025

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	33	49	3	2	0	57	7	11	2	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.4	7.6	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	74	100	5	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.107	0.006	0.019
Departure Headway (Hd)	4.195	3.838	4.288	4.202
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	928	827	846
Service Time	2.237	1.887	2.353	2.258
HCM Lane V/C Ratio	0.087	0.108	0.006	0.019
HCM Control Delay	7.6	7.4	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0	0.1

OPENING YEAR 1A
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.953			0.937			0.989	
Flt Protected		0.993			0.981			0.990			0.971	
Satd. Flow (prot)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Flt Permitted		0.993			0.981			0.990			0.971	
Satd. Flow (perm)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	27	35	50	33	45	26	40	57	53	30	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	128	0	0	123	0	0	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.6%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1A
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.953			0.937			0.989	
Flt Protected		0.993			0.981			0.990			0.971	
Satd. Flow (prot)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Flt Permitted		0.993			0.981			0.990			0.971	
Satd. Flow (perm)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1A

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	27	35	50	33	45	26	40	57	53	30	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	128	0	0	123	0	0	90	0
Intersection Summary												

OPENING YEAR 1A

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1A
145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	67	0	0	117	0	0	113	0	0	83	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1751	0	0	1765	0	0	1750	0	0	1824	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00				0.00				0.00		0.00	
Protected Option Allowed	No				No				No		No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1647		0	821		0	1735		0	780	
Reference Time A (s)	0.0	4.9		0.0	17.1		0.0	7.8		0.0	12.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	12.6		11.1	16.0		9.6	15.7		11.3	13.5	
Reference Time (s)	4.9				16.0		7.8				12.8	
Adj Reference Time (s)	8.9				20.0		11.8				16.8	
Split Option												
Ref Time Combined (s)	0.0	4.6		0.0	8.0		0.0	7.7		0.0	5.5	
Ref Time Seperate (s)	0.7	1.7		3.1	2.1		1.6	2.6		3.3	1.8	
Reference Time (s)	4.6	4.6		8.0	8.0		7.7	7.7		5.5	5.5	
Adj Reference Time (s)	8.6	8.6		12.0	12.0		11.7	11.7		9.5	9.5	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	20.0		16.8									
Split Option (s)	20.5		21.2									
Minimum (s)	20.0		16.8		36.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	30.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1A
145: 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	25	32	46	30	41	24	37	52	49	28	6
Future Vol, veh/h	10	25	32	46	30	41	24	37	52	49	28	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	27	35	50	33	45	26	40	57	53	30	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	8.2	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	15%	39%	59%
Vol Thru, %	33%	37%	26%	34%
Vol Right, %	46%	48%	35%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	67	117	83
LT Vol	24	10	46	49
Through Vol	37	25	30	28
RT Vol	52	32	41	6
Lane Flow Rate	123	73	127	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.145	0.087	0.154	0.115
Departure Headway (Hd)	4.253	4.302	4.365	4.59
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	845	834	823	782
Service Time	2.272	2.322	2.384	2.61
HCM Lane V/C Ratio	0.146	0.088	0.154	0.115
HCM Control Delay	8	7.7	8.2	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.5	0.4

OPENING YEAR 1A
167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	28	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	11	0	0	51
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.2%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1A

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2

Intersection Summary

Area Type: Other

OPENING YEAR 1A

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	28	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	11	0	0	51
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1A
167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	26	10	0	28	19
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	26	0	10	0	0	47
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	29.0		0.6		0.0	31.1
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.6		9.9	11.1
Reference Time (s)			0.6			11.1
Adj Reference Time (s)			8.0			15.1
Split Option						
Ref Time Combined (s)	1.9		0.6		0.0	3.1
Ref Time Seperate (s)	0.0		0.6		1.9	1.2
Reference Time (s)	1.9		0.6		3.1	3.1
Adj Reference Time (s)	8.0		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.1			
Split Option (s)	8.0		16.0			
Minimum (s)	8.0		15.1		23.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	19.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1A
167: 3rd St SW

01/15/2025

Intersection

Int Delay, s/veh 5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	10	0	28	19
Future Vol, veh/h	0	26	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	11	0	30	21

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	92 11	0 0	11 0
Stage 1	11 -	- -	- -
Stage 2	81 -	- -	- -
Critical Hdwy	6.42 6.22	- -	4.12 -
Critical Hdwy Stg 1	5.42 -	- -	- -
Critical Hdwy Stg 2	5.42 -	- -	- -
Follow-up Hdwy	3.518 3.318	- -	2.218 -
Pot Cap-1 Maneuver	908 1070	- -	1608 -
Stage 1	1012 -	- -	- -
Stage 2	942 -	- -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	891 1070	- -	1608 -
Mov Cap-2 Maneuver	891 -	- -	- -
Stage 1	1012 -	- -	- -
Stage 2	924 -	- -	- -

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1070	1608	-
HCM Lane V/C Ratio	-	- 0.026	0.019	-
HCM Control Delay (s)	-	- 8.5	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.1	0.1	-

Network Totals

Number of Intersections	35
Total Delay (hr)	14
Stops (#)	4704
Average Speed (mph)	28
Total Travel Time (hr)	102
Distance Traveled (mi)	2841
Fuel Consumed (gal)	151
Fuel Economy (mpg)	18.8
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.4

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	159	259	331	379	1128
Control Delay / Veh (s/v)	7	8	11	8	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	8	11	8	8
Total Delay (hr)	0	1	1	1	3
Stops / Veh	0.35	0.38	0.57	0.46	0.46
Stops (#)	56	98	189	175	518
Average Speed (mph)	23	16	21	24	22
Total Travel Time (hr)	1	1	3	4	10
Distance Traveled (mi)	32	19	73	98	222
Fuel Consumed (gal)	2	2	5	6	14
Fuel Economy (mpg)	17.3	11.0	15.3	17.5	15.9
CO Emissions (kg)	0.13	0.12	0.33	0.39	0.97
NOx Emissions (kg)	0.02	0.02	0.06	0.08	0.19
VOC Emissions (kg)	0.03	0.03	0.08	0.09	0.23
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	174	215	317	706
Control Delay / Veh (s/v)	14	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	14	1	0	4
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.26	0.00	0.32
Stops (#)	174	55	0	229
Average Speed (mph)	12	25	30	24
Total Travel Time (hr)	1	0	2	4
Distance Traveled (mi)	14	13	70	96
Fuel Consumed (gal)	2	1	3	6
Fuel Economy (mpg)	6.9	NA	24.3	16.7
CO Emissions (kg)	0.14	0.06	0.20	0.40
NOx Emissions (kg)	0.03	0.01	0.04	0.08
VOC Emissions (kg)	0.03	0.01	0.05	0.09
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	220	220
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	1	1
Distance Traveled (mi)	16	16
Fuel Consumed (gal)	1	1
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.05	0.05
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	113	60	379	272	824
Control Delay / Veh (s/v)	4	7	11	11	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	7	11	11	10
Total Delay (hr)	0	0	1	1	2
Stops / Veh	0.25	0.53	0.64	0.67	0.59
Stops (#)	28	32	242	182	484
Average Speed (mph)	25	26	23	19	22
Total Travel Time (hr)	1	1	5	2	9
Distance Traveled (mi)	20	23	107	47	197
Fuel Consumed (gal)	1	1	7	4	12
Fuel Economy (mpg)	18.6	19.0	16.2	13.1	15.8
CO Emissions (kg)	0.08	0.09	0.46	0.25	0.87
NOx Emissions (kg)	0.01	0.02	0.09	0.05	0.17
VOC Emissions (kg)	0.02	0.02	0.11	0.06	0.20
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	93	38	74	205
Control Delay / Veh (s/v)	0	10	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.05	0.20
Stops (#)	0	38	4	42
Average Speed (mph)	30	22	30	27
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	12	8	13	32
Fuel Consumed (gal)	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	19.7
CO Emissions (kg)	0.03	0.04	0.04	0.11
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	282	63	228	573
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.11
Stops (#)	0	63	0	63
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	0	1	3
Distance Traveled (mi)	49	13	33	95
Fuel Consumed (gal)	2	1	1	4
Fuel Economy (mpg)	24.3	NA	24.3	22.3
CO Emissions (kg)	0.14	0.06	0.09	0.30
NOx Emissions (kg)	0.03	0.01	0.02	0.06
VOC Emissions (kg)	0.03	0.01	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	82	3	302	318	705
Control Delay / Veh (s/v)	22	23	3	1	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	22	23	3	1	4
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.52	0.27	0.47
Stops (#)	82	3	157	87	329
Average Speed (mph)	27	17	19	27	26
Total Travel Time (hr)	2	0	1	1	4
Distance Traveled (mi)	57	1	11	30	99
Fuel Consumed (gal)	3	0	1	2	7
Fuel Economy (mpg)	18.0	NA	7.6	16.7	15.2
CO Emissions (kg)	0.22	0.00	0.10	0.13	0.46
NOx Emissions (kg)	0.04	0.00	0.02	0.02	0.09
VOC Emissions (kg)	0.05	0.00	0.02	0.03	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	66	163	247	324	800
Control Delay / Veh (s/v)	19	16	0	2	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	19	16	0	2	6
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	0.00	0.40	0.45
Stops (#)	66	163	0	131	360
Average Speed (mph)	15	21	30	26	23
Total Travel Time (hr)	1	3	1	1	6
Distance Traveled (mi)	11	54	36	31	132
Fuel Consumed (gal)	1	4	1	2	8
Fuel Economy (mpg)	10.3	14.8	24.3	14.5	15.8
CO Emissions (kg)	0.08	0.26	0.10	0.15	0.58
NOx Emissions (kg)	0.01	0.05	0.02	0.03	0.11
VOC Emissions (kg)	0.02	0.06	0.02	0.03	0.14
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	136	140	25	301
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.21	1.00	0.18
Stops (#)	0	29	25	54
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	2
Distance Traveled (mi)	45	5	10	59
Fuel Consumed (gal)	2	0	1	3
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.13	0.03	0.04	0.20
NOx Emissions (kg)	0.03	0.01	0.01	0.04
VOC Emissions (kg)	0.03	0.01	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	45	127	8	68	248
Control Delay / Veh (s/v)	11	10	0	0	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	10	0	0	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.00	0.07	0.71
Stops (#)	45	127	0	5	177
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	1	0	1	2
Distance Traveled (mi)	4	25	0	18	48
Fuel Consumed (gal)	1	2	0	1	3
Fuel Economy (mpg)	NA	12.6	NA	NA	14.5
CO Emissions (kg)	0.04	0.14	0.00	0.05	0.23
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	4	4	38	51	97
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	4	4	38	51	97
Average Speed (mph)	20	22	24	25	24
Total Travel Time (hr)	0	0	0	1	1
Distance Traveled (mi)	0	1	10	14	25
Fuel Consumed (gal)	0	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	NA	14.8
CO Emissions (kg)	0.00	0.00	0.05	0.07	0.12
NOx Emissions (kg)	0.00	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.00	0.01	0.02	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	3	403	374	780
Control Delay / Veh (s/v)	11	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.02	0.00	0.02
Stops (#)	3	9	0	12
Average Speed (mph)	20	30	30	30
Total Travel Time (hr)	0	3	4	7
Distance Traveled (mi)	1	104	105	210
Fuel Consumed (gal)	0	4	4	9
Fuel Economy (mpg)	NA	24.0	24.3	24.1
CO Emissions (kg)	0.00	0.30	0.30	0.61
NOx Emissions (kg)	0.00	0.06	0.06	0.12
VOC Emissions (kg)	0.00	0.07	0.07	0.14
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	99	52	19	256
Control Delay / Veh (s/v)	1	2	10	10	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	10	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.37	1.00	1.00	0.47
Stops (#)	12	37	52	19	120
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	1	1	1	0	3
Distance Traveled (mi)	38	18	14	1	70
Fuel Consumed (gal)	2	1	1	0	4
Fuel Economy (mpg)	23.1	NA	NA	NA	18.8
CO Emissions (kg)	0.11	0.07	0.07	0.01	0.26
NOx Emissions (kg)	0.02	0.01	0.01	0.00	0.05
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	20	75	34	7	136
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.30
Stops (#)	0	0	34	7	41
Average Speed (mph)	30	30	9	13	22
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	2	5	1	0	9
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.02	0.00	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	54	105	40	199
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.22
Stops (#)	3	0	40	43
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	3	13	5	21
Fuel Consumed (gal)	0	1	1	1
Fuel Economy (mpg)	NA	NA	NA	17.8
CO Emissions (kg)	0.01	0.04	0.04	0.08
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	41	29	13	83
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.38	0.90
Stops (#)	41	29	5	75
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	5	4	0	9
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.03	0.00	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	55	17	51	209
Control Delay / Veh (s/v)	9	9	8	4	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	9	8	4	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.59	0.60	0.71	0.31	0.54
Stops (#)	51	33	12	16	112
Average Speed (mph)	22	19	10	24	22
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	19	7	1	8	34
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.09	0.04	0.01	0.03	0.16
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	173	173
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	5	5
Distance Traveled (mi)	285	285
Fuel Consumed (gal)	10	10
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.68	0.68
NOx Emissions (kg)	0.13	0.13
VOC Emissions (kg)	0.16	0.16
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	51	75	42	71	239
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.33	1.00	1.00	0.65
Stops (#)	18	25	42	71	156
Average Speed (mph)	33	34	20	17	30
Total Travel Time (hr)	1	2	0	0	3
Distance Traveled (mi)	19	52	6	8	85
Fuel Consumed (gal)	1	2	1	1	5
Fuel Economy (mpg)	NA	23.7	NA	NA	18.9
CO Emissions (kg)	0.06	0.15	0.04	0.06	0.32
NOx Emissions (kg)	0.01	0.03	0.01	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.01	0.01	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	63	69	32	164
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.25	0.00	1.00	0.29
Stops (#)	16	0	32	48
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	11	14	4	29
Fuel Consumed (gal)	1	1	0	1
Fuel Economy (mpg)	NA	NA	NA	19.5
CO Emissions (kg)	0.04	0.04	0.03	0.10
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	83	107	10	26	226
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.05	0.16	1.00	1.00	0.25
Stops (#)	4	17	10	26	57
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	21	16	3	4	44
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	19.9
CO Emissions (kg)	0.06	0.05	0.01	0.03	0.16
NOx Emissions (kg)	0.01	0.01	0.00	0.00	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	43	59	33	33	168
Control Delay / Veh (s/v)	1	1	9	9	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	1	9	9	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.26	0.24	1.00	1.00	0.54
Stops (#)	11	14	33	33	91
Average Speed (mph)	33	34	20	18	29
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	9	22	5	4	40
Fuel Consumed (gal)	0	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.7
CO Emissions (kg)	0.03	0.07	0.03	0.03	0.16
NOx Emissions (kg)	0.01	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.02	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 1st Ave E & Beltline Rd

Direction	EB	WB	SB	All
Future Volume (vph)	125	80	67	272
Control Delay / Veh (s/v)	2	0	9	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	3
Total Delay (hr)	0	0	0	0
Stops / Veh	0.41	0.00	1.00	0.43
Stops (#)	51	0	67	118
Average Speed (mph)	29	30	23	28
Total Travel Time (hr)	2	1	1	3
Distance Traveled (mi)	60	21	12	92
Fuel Consumed (gal)	3	1	1	5
Fuel Economy (mpg)	21.4	NA	11.0	19.5
CO Emissions (kg)	0.20	0.06	0.08	0.33
NOx Emissions (kg)	0.04	0.01	0.01	0.06
VOC Emissions (kg)	0.05	0.01	0.02	0.08
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	11	98	114	70	293
Control Delay / Veh (s/v)	10	10	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	10	0	2	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.33	0.47
Stops (#)	11	98	6	23	138
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	1	2	0	4
Distance Traveled (mi)	3	34	65	9	111
Fuel Consumed (gal)	0	2	3	1	6
Fuel Economy (mpg)	NA	15.9	23.9	NA	19.8
CO Emissions (kg)	0.01	0.15	0.19	0.04	0.39
NOx Emissions (kg)	0.00	0.03	0.04	0.01	0.08
VOC Emissions (kg)	0.00	0.03	0.04	0.01	0.09
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	78	42	72	192
Control Delay / Veh (s/v)	9	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	1	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.29	0.00	0.47
Stops (#)	78	12	0	90
Average Speed (mph)	22	21	30	27
Total Travel Time (hr)	1	0	1	2
Distance Traveled (mi)	17	1	41	59
Fuel Consumed (gal)	1	0	2	3
Fuel Economy (mpg)	13.4	NA	24.3	19.1
CO Emissions (kg)	0.09	0.01	0.12	0.22
NOx Emissions (kg)	0.02	0.00	0.02	0.04
VOC Emissions (kg)	0.02	0.00	0.03	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	101	103	58	2	264
Control Delay / Veh (s/v)	0	1	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.30	1.00	1.00	0.34
Stops (#)	0	31	58	2	91
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	15	23	7	0	45
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	20.0	NA	NA	18.0
CO Emissions (kg)	0.04	0.08	0.05	0.00	0.18
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.03
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	118	46	3	34	201
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.40	0.00	1.00	1.00	0.42
Stops (#)	47	0	3	34	84
Average Speed (mph)	29	30	23	26	28
Total Travel Time (hr)	2	0	0	1	3
Distance Traveled (mi)	60	10	1	16	87
Fuel Consumed (gal)	3	0	0	1	4
Fuel Economy (mpg)	21.6	NA	NA	NA	20.9
CO Emissions (kg)	0.20	0.03	0.00	0.06	0.29
NOx Emissions (kg)	0.04	0.01	0.00	0.01	0.06
VOC Emissions (kg)	0.05	0.01	0.00	0.01	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	54	119	164	337
Control Delay / Veh (s/v)	9	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	1	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.16	0.00	0.22
Stops (#)	54	19	0	73
Average Speed (mph)	51	29	30	40
Total Travel Time (hr)	2	1	1	4
Distance Traveled (mi)	100	18	43	160
Fuel Consumed (gal)	4	1	2	7
Fuel Economy (mpg)	22.2	NA	24.3	22.6
CO Emissions (kg)	0.31	0.06	0.12	0.50
NOx Emissions (kg)	0.06	0.01	0.02	0.10
VOC Emissions (kg)	0.07	0.01	0.03	0.12
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	81	260	98	439
Control Delay / Veh (s/v)	11	0	1	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	1	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.29	0.25
Stops (#)	81	0	28	109
Average Speed (mph)	25	30	29	28
Total Travel Time (hr)	2	2	2	6
Distance Traveled (mi)	41	68	59	168
Fuel Consumed (gal)	2	3	3	8
Fuel Economy (mpg)	17.7	24.3	22.6	21.7
CO Emissions (kg)	0.16	0.19	0.18	0.54
NOx Emissions (kg)	0.03	0.04	0.04	0.11
VOC Emissions (kg)	0.04	0.05	0.04	0.13
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	118	11	90	219
Control Delay / Veh (s/v)	11	0	1	6
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	1	6
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.11	0.58
Stops (#)	118	0	10	128
Average Speed (mph)	12	30	29	20
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	8	2	14	23
Fuel Consumed (gal)	1	0	1	2
Fuel Economy (mpg)	6.2	NA	NA	11.9
CO Emissions (kg)	0.09	0.00	0.04	0.13
NOx Emissions (kg)	0.02	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.00	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	15	77	22	15	129
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.40	0.01	1.00	1.00	0.34
Stops (#)	6	1	22	15	44
Average Speed (mph)	20	30	13	13	24
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	0	10	1	1	12
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.03	0.02	0.01	0.06
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	44	25	29	17	115
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	44	25	29	17	115
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	6	3	2	1	11
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.7
CO Emissions (kg)	0.04	0.02	0.02	0.01	0.09
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	92	5	69	15	181
Control Delay / Veh (s/v)	7	7	8	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	8	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	92	5	69	15	181
Average Speed (mph)	26	15	26	15	26
Total Travel Time (hr)	1	0	1	0	2
Distance Traveled (mi)	32	0	30	1	64
Fuel Consumed (gal)	2	0	2	0	4
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.14	0.00	0.12	0.01	0.27
NOx Emissions (kg)	0.03	0.00	0.02	0.00	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	67	118	113	83	381
Control Delay / Veh (s/v)	8	8	8	8	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	8	8	8	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	67	118	113	83	381
Average Speed (mph)	11	26	27	22	25
Total Travel Time (hr)	0	2	3	1	6
Distance Traveled (mi)	2	56	68	15	141
Fuel Consumed (gal)	1	3	4	1	9
Fuel Economy (mpg)	NA	17.8	18.8	12.3	16.5
CO Emissions (kg)	0.04	0.22	0.25	0.08	0.60
NOx Emissions (kg)	0.01	0.04	0.05	0.02	0.12
VOC Emissions (kg)	0.01	0.05	0.06	0.02	0.14
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	26	10	47	83
Control Delay / Veh (s/v)	8	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	8	0	2	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.38	0.53
Stops (#)	26	0	18	44
Average Speed (mph)	23	30	19	23
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	6	2	1	9
Fuel Consumed (gal)	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.03	0.00	0.01	0.05
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.00	0.00	0.01
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	14
Stops / Veh	0.41
Stops (#)	4704
Average Speed (mph)	28
Total Travel Time (hr)	102
Distance Traveled (mi)	2841
Fuel Consumed (gal)	151
Fuel Economy (mpg)	18.8
CO Emissions (kg)	10.58
NOx Emissions (kg)	2.06
VOC Emissions (kg)	2.45
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.4

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.965			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1798	0	1770	3405	0
Flt Permitted		0.942			0.953					0.572		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1798	0	1065	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			38			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	64	86	34	99	149	0	212	64	4	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	276	0	4	331	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	
v/c Ratio		0.25			0.39			0.35		0.01	0.22	

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		6.8			7.7			9.7		8.2	7.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		6.8			7.7			9.7		8.2	7.0	
LOS		A			A			A		A	A	
Approach Delay		6.8			7.7			9.7			7.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 7.9

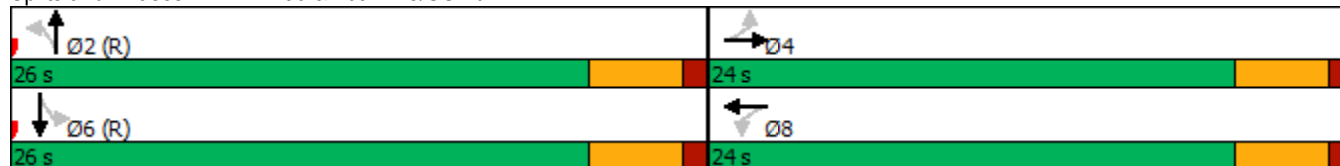
Intersection LOS: A

Intersection Capacity Utilization 40.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.965			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1798	0	1770	3405	0
Flt Permitted		0.942			0.953					0.572		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1798	0	1065	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			38			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	64	86	34	99	149	0	212	64	4	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	276	0	4	331	0
Intersection Summary												

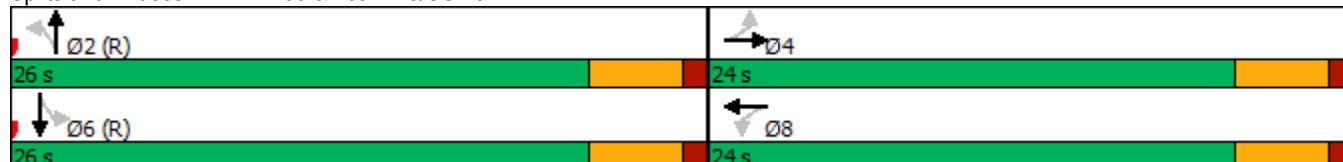
OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

							
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	21	59	31	91	195	4	227
Future Volume (vph)	21	59	31	91	195	4	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.25		0.39	0.35	0.01	0.22
Control Delay		6.8		7.7	9.7	8.2	7.0
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		6.8		7.7	9.7	8.2	7.0
LOS		A		A	A	A	A
Approach Delay		6.8		7.7	9.7		7.1
Approach LOS		A		A	A		A
Intersection Summary							
Cycle Length: 50							
Actuated Cycle Length: 50							
Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green							
Natural Cycle: 45							
Control Type: Pretimed							
Maximum v/c Ratio: 0.39							
Intersection Signal Delay: 7.9				Intersection LOS: A			
Intersection Capacity Utilization 40.7%				ICU Level of Service A			
Analysis Period (min) 15							

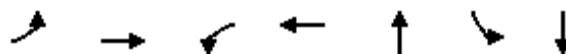
Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed

OPENING YEAR 1B
1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	173	282	276	4	331
v/c Ratio	0.25	0.39	0.35	0.01	0.22
Control Delay	6.8	7.7	9.7	8.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.7	9.7	8.2	7.0
Queue Length 50th (ft)	16	28	43	1	22
Queue Length 95th (ft)	47	71	86	5	42
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	690	723	794	457	1512
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.39	0.35	0.01	0.22
Intersection Summary					

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	159	0	0	259	0	0	254	0	4	304	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1834	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	16.6	0.0	0.3	10.5	0.0
Adj Reference Time (s)	0.0			0.0			9.5	21.1	0.0	9.5	15.0	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1834		120	1740	
Reference Time A (s)	0.0	15.0		0.0	23.2		0.0	16.6		4.0	10.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	15.0			23.2			16.6			10.5		
Adj Reference Time (s)	19.5			27.7			21.1			15.0		
Split Option												
Ref Time Combined (s)	0.0	10.9		0.0	17.9		0.0	16.6		0.3	10.5	
Ref Time Seperate (s)	1.4	4.1		2.1	6.3		0.0	12.8		0.3	7.8	
Reference Time (s)	10.9	10.9		17.9	17.9		16.6	16.6		10.5	10.5	
Adj Reference Time (s)	15.4	15.4		22.4	22.4		21.1	21.1		15.0	15.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		30.6									
Permitted Option (s)	27.7		21.1									
Split Option (s)	37.8		36.1									
Minimum (s)	27.7		21.1		48.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	40.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	212	64	4	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	283	321	120	266	342	144	593	179	504	1127	374
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	105	726	822	101	682	878	1049	1379	416	1103	2621	869
Grp Volume(v), veh/h	173	0	0	282	0	0	0	0	276	4	165	166
Grp Sat Flow(s),veh/h/ln	1654	0	0	1661	0	0	1049	0	1795	1103	1777	1714
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.1	2.9	3.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	6.0	0.0	0.0	0.0	0.0	5.2	5.3	2.9	3.0
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.23	1.00		0.51
Lane Grp Cap(c), veh/h	727	0	0	728	0	0	144	0	772	504	764	737
V/C Ratio(X)	0.24	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.36	0.01	0.22	0.22
Avail Cap(c_a), veh/h	727	0	0	728	0	0	144	0	772	504	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.1	0.0	0.0	0.0	0.0	9.6	11.4	9.0	9.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	1.3	0.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	1.9	0.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	10.9	11.4	9.6	9.7
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		173			282			276			335	
Approach Delay, s/veh		11.1			12.7			10.9			9.7	
Approach LOS		B			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		7.2		5.4		7.3		8.0				
Green Ext Time (p_c), s		1.4		0.8		1.6		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.0								
HCM 6th LOS				B								

OPENING YEAR 1B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	212	64	4	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	283	321	120	266	342	144	593	179	504	1127	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	10.9	11.4	9.6	9.7
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h	173			282			276			335		
Approach Delay, s/veh	11.1			12.7			10.9			9.7		
Approach LOS	B			B			B			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	7.2			5.4			7.3			8.0		
Green Ext Time (g_e), s	1.4			0.8			1.6			1.3		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1049			105			1103			101		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1379			726			2621			682		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	416			822			869			878		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	173	0	4	0	282
Grp Sat Flow (s), veh/h/ln	0	1049	0	1654	0	1103	0	1661
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	5.3	0.0	6.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1049	0	1150	0	1103	0	1257
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.5	0.0	16.3	0.0	16.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	727	0	504	0	728
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.01	0.00	0.39
Avail Cap (c_a), veh/h	0	144	0	727	0	504	0	728
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.3	0.0	11.4	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.1	0.0	11.4	0.0	12.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.2	0.0	0.0	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.01	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	165	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	276	0	0	0	166	0	0
Grp Sat Flow (s), veh/h/ln	0	1795	0	0	0	1714	0	0
Q Serve Time (g_s), s	0.0	5.2	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.2	0.0	0.0	0.0	3.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.23	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	772	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.36	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	772	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.6	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.9	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.87	1.90	2.27	2.29
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	173	282	276	335
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.65	2.78	2.38	2.29
Bicycle LOS	C	C	B	B

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2: IA 136

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.906									0.900	
Flt Protected		0.985						0.989				
Satd. Flow (prot)	0	1662	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.985						0.989				
Satd. Flow (perm)	0	1662	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	0	0	0	234	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 31.6%					ICU Level of Service A							
Analysis Period (min) 15												

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2: IA 136

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.906									0.900	
Flt Protected		0.985						0.989				
Satd. Flow (prot)	0	1662	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.985						0.989				
Satd. Flow (perm)	0	1662	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

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2: IA 136

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	32	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	0	0	0	234	0	0	345	0
Intersection Summary												

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2: IA 136

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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2: IA 136

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	97	0	0	0	0	0	215	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1675	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1532		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	7.6		0.0	0.0		0.0	46.3		0.0	11.7	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	9.9	15.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)	7.6			0.0			46.3			11.7		
Adj Reference Time (s)	11.6			8.0			50.3			15.7		
Split Option												
Ref Time Combined (s)	0.0	7.0		0.0	0.0		0.0	7.2		0.0	11.7	
Ref Time Seperate (s)	1.9	0.0		0.0	0.0		3.1	5.6		0.0	3.9	
Reference Time (s)	7.0	7.0		0.0	0.0		7.2	7.2		11.7	11.7	
Adj Reference Time (s)	11.0	11.0		0.0	0.0		11.2	11.2		15.7	15.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.6		50.3									
Split Option (s)	11.0		26.9									
Minimum (s)	11.0		26.9		37.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.6%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B

2: IA 136

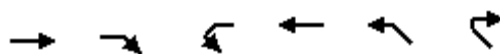
01/15/2025

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	29	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	0	74	0	0	0	50	184	0	0	116	229
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	423	515	173	342	629	92	345	0	0	184	0	0
Stage 1	231	231	-	284	284	-	-	-	-	-	-	-
Stage 2	192	284	-	58	345	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	515	462	840	588	398	947	1211	-	-	1388	-	-
Stage 1	751	712	-	699	675	-	-	-	-	-	-	-
Stage 2	791	675	-	947	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	497	441	840	517	380	947	1211	-	-	1388	-	-
Mov Cap-2 Maneuver	497	441	-	517	380	-	-	-	-	-	-	-
Stage 1	716	712	-	667	644	-	-	-	-	-	-	-
Stage 2	755	644	-	864	635	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.1		0		1.8		0					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1211	-	-	696	-	1388	-	-				
HCM Lane V/C Ratio	0.041	-	-	0.151	-	-	-	-				
HCM Control Delay (s)	8.1	0.1	-	11.1	0	0	-	-				
HCM Lane LOS	A	A	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	-	0	-	-				

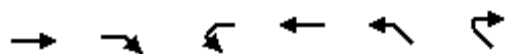
OPENING YEAR 1B

10: US 20

01/15/2025



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	120	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	10.1%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

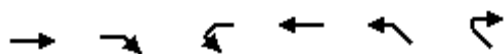
Intersection Summary

Area Type: Other

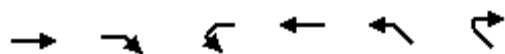
OPENING YEAR 1B

10: US 20

01/15/2025



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	120	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	0	0	0	0
Intersection Summary						

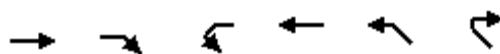


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1B

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Volume (vph)	0	110	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	110	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	8.2	0.0	0.0		0.0
Adj Reference Time (s)	0.0	12.2	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0		0.0	
Right Turns	EBR					
Adj Reference Time (s)	12.2					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.2					
Intersection Summary						
Intersection Capacity Utilization		10.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.955			0.948		0.564			0.607		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1051	1811	0	1131	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	5	95	11	39	15	91	199	46	3	282	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	245	0	3	287	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	
v/c Ratio		0.18			0.07	0.02	0.22	0.33		0.01	0.39	

OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.3			8.8	1.9	10.6	9.6		8.3	11.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			8.8	1.9	10.6	9.6		8.3	11.4	
LOS		A			A	A	B	A		A	B	
Approach Delay		4.3			7.2			9.9			11.4	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.4

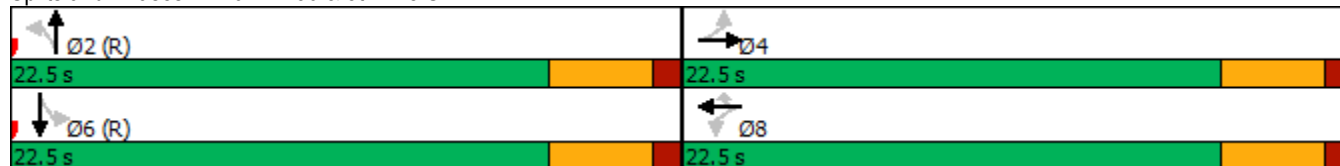
Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.896				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.955			0.948		0.564			0.607		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1051	1811	0	1131	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	5	95	11	39	15	91	199	46	3	282	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	245	0	3	287	0
Intersection Summary												

OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	183	3	259
Future Volume (vph)	21	5	10	36	14	84	183	3	259
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.18		0.07	0.02	0.22	0.33	0.01	0.39
Control Delay		4.3		8.8	1.9	10.6	9.6	8.3	11.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		8.8	1.9	10.6	9.6	8.3	11.4
LOS		A		A	A	B	A	A	B
Approach Delay		4.3		7.2			9.9		11.4
Approach LOS		A		A			A		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.4

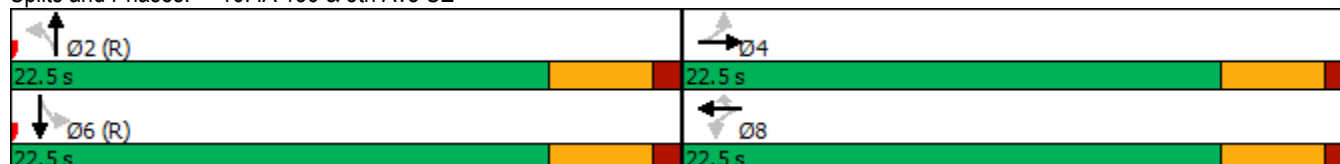
Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1B
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	123	50	15	91	245	3	287
v/c Ratio	0.18	0.07	0.02	0.22	0.33	0.01	0.39
Control Delay	4.3	8.8	1.9	10.6	9.6	8.3	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	8.8	1.9	10.6	9.6	8.3	11.4
Queue Length 50th (ft)	4	7	0	15	35	1	49
Queue Length 95th (ft)	26	22	m4	38	74	4	95
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	694	706	654	420	743	452	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.07	0.02	0.22	0.33	0.01	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1B
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01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	113	0	0	46	14	84	225	0	3	264	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1847	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.0			5.6	14.6	0.0	0.2	16.7	0.0
Adj Reference Time (s)	0.0			9.5			10.1	19.1	0.0	9.5	21.2	0.0
Permitted Option												
Adj Saturation A (vph)	0	436	0	0	1327	0	120	1847	0	120	1895	0
Reference Time A (s)	0.0	31.1	0.0	0.0	4.2	0.0	83.8	14.6	0.0	3.0	16.7	0.0
Adj Saturation B (vph)	0	0	0	0	0	0	NA	NA	0	NA	NA	0
Reference Time B (s)	9.4	16.1	0.0	8.7	10.9	0.0	NA	NA	0.0	NA	NA	0.0
Reference Time (s)	16.1			4.2			83.8			16.7		
Adj Reference Time (s)	20.6			9.5			88.3			21.2		
Split Option												
Ref Time Combined (s)	0.0	8.1	0.0	0.0	2.9	0.0	5.6	14.6	0.0	0.2	16.7	0.0
Ref Time Seperate (s)	1.4	0.4	0.0	0.7	2.3	0.0	5.6	11.9	0.0	0.2	16.4	0.0
Reference Time (s)	8.1	8.1	0.0	2.9	2.9	0.0	14.6	14.6	0.0	16.7	16.7	0.0
Adj Reference Time (s)	12.6	12.6	0.0	9.5	9.5	0.0	19.1	19.1	0.0	21.2	21.2	0.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		31.3									
Permitted Option (s)	20.6		88.3									
Split Option (s)	22.1		40.3									
Minimum (s)	20.6		31.3		52.0							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	19.1											
Oncoming Left Ref Time (s)	12.6											
Combined (s)	41.3											
Intersection Summary												
Intersection Capacity Utilization			43.3%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	199	46	3	282	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	76	489	195	608	634	478	588	136	507	733	13
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	171	190	1224	243	1519	1585	1092	1470	340	1135	1832	32
Grp Volume(v), veh/h	123	0	0	50	0	15	91	0	245	3	0	287
Grp Sat Flow(s),veh/h/ln	1584	0	0	1762	0	1585	1092	0	1809	1135	0	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	2.9	0.0	4.2	0.1	0.0	4.9
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.7	0.0	0.3	7.8	0.0	4.2	4.3	0.0	4.9
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.19	1.00		0.02
Lane Grp Cap(c), veh/h	729	0	0	803	0	634	478	0	724	507	0	746
V/C Ratio(X)	0.17	0.00	0.00	0.06	0.00	0.02	0.19	0.00	0.34	0.01	0.00	0.38
Avail Cap(c_a), veh/h	729	0	0	803	0	634	478	0	724	507	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	8.3	0.0	8.2	12.3	0.0	9.4	10.9	0.0	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.1	0.9	0.0	1.3	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.1	0.7	0.0	1.6	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.2	0.0	10.6	10.9	0.0	11.1
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		123			65			336			290	
Approach Delay, s/veh		9.3			8.4			11.3			11.1	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.8		4.2		6.9		2.7				
Green Ext Time (p_c), s		1.1		0.5		1.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				10.7								
HCM 6th LOS				B								

OPENING YEAR 1B
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	199	46	3	282	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	163	76	489	195	608	634	478	588	136	507	733	13
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.2	0.0	10.6	10.9	0.0	11.1
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	123			65			336			290		
Approach Delay, s/veh	9.3			8.4			11.3			11.1		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.1			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	9.8			4.2			6.9			2.7		
Green Ext Time (g_e), s	1.1			0.5			1.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1092			171			1135			243		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1470			190			1832			1519		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	340			1224			32			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

OPENING YEAR 1B
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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	123	0	3	0	50
Grp Sat Flow (s), veh/h/ln	0	1092	0	1584	0	1135	0	1762
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.8	0.0	2.2	0.0	4.3	0.0	0.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1092	0	1371	0	1135	0	1315
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	13.1	0.0	17.3	0.0	13.8	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.7
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	478	0	729	0	507	0	803
V/C Ratio (X)	0.00	0.19	0.00	0.17	0.00	0.01	0.00	0.06
Avail Cap (c_a), veh/h	0	478	0	729	0	507	0	803
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	8.8	0.0	10.9	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.5	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.2	0.0	9.3	0.0	10.9	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.02	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OPENING YEAR 1B
16: IA 136 & 8th Ave SE

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	245	0	0	0	287	0	15
Grp Sat Flow (s), veh/h/ln	0	1809	0	0	0	1865	0	1585
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	4.9	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	0.0	0.0	4.9	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	724	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.38	0.00	0.02
Avail Cap (c_a), veh/h	0	724	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.4	0.0	0.0	0.0	9.6	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	1.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.6	0.0	0.0	0.0	11.1	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	1.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	0.0	0.0	1.9	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.06	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.82	1.96	2.16	2.09
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	123	65	336	290
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.31	2.23	2.67	2.41
Bicycle LOS	B	B	C	B

OPENING YEAR 1B
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.979			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1751	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1751	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	40	16	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	19	0	0	80
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.1% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1B
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.979			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1751	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1751	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3

Intersection Summary

Area Type: Other

OPENING YEAR 1B
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	61	40	16	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	19	0	0	80
Intersection Summary						

OPENING YEAR 1B
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

OPENING YEAR 1B
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	56	37	15	3	3	71
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No	No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	93	0	18	0	0	74
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.93	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1775	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	6.9	0.0		0.0		
Adj Reference Time (s)	10.9	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			118		0	120
Reference Time A (s)			18.3		0.0	73.8
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			1.2		0.0	4.9
Ref Time Seperate (s)			1.0		0.2	4.7
Reference Time (s)			1.2		4.9	4.9
Adj Reference Time (s)			8.0		8.9	8.9
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		8.9	
Minimum (s)	0.0		8.0		8.9	16.9
Right Turns	EBR					
Adj Reference Time (s)	10.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	10.9					
Intersection Summary						
Intersection Capacity Utilization		14.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	39	174	18	44	219	5
Future Volume (vph)	39	174	18	44	219	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890		0.905		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1662	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	189	20	48	238	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	231	0	68	0	243	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.0%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890		0.905		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1662	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

OPENING YEAR 1B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	39	174	18	44	219	5
Future Volume (vph)	39	174	18	44	219	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	42	189	20	48	238	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	231	0	68	0	243	0
Intersection Summary						

OPENING YEAR 1B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

OPENING YEAR 1B

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	39	174	18	44	219	5
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	213	0	62	0	224	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1652	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	232.1		66.7		223.9	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	15.5		4.4		14.9	
Ref Time Seperate (s)	2.8		1.3		14.6	
Reference Time (s)	15.5		4.4		14.9	
Adj Reference Time (s)	19.5		8.4		18.9	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	19.5		8.4		18.9	
Minimum (s)	19.5		8.4		18.9	46.8
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		39.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.955		0.995			0.999	
Flt Protected		0.970			0.968		0.954			0.953	
Satd. Flow (prot)	0	1717	0	0	1722	0	1768	0	0	1773	0
Flt Permitted		0.970			0.968		0.954			0.953	
Satd. Flow (perm)	0	1717	0	0	1722	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	0	25	2	0	1	315	13	7	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	67	0	0	3	0	328	0	0	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization 45.7%	ICU Level of Service A										
Analysis Period (min) 15											

OPENING YEAR 1B

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.950			0.955		0.995			0.999	
Flt Protected		0.970			0.968		0.954			0.953	
Satd. Flow (prot)	0	1717	0	0	1722	0	1768	0	0	1773	0
Flt Permitted		0.970			0.968		0.954			0.953	
Satd. Flow (perm)	0	1717	0	0	1722	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

OPENING YEAR 1B

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	42	0	25	2	0	1	315	13	7	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	67	0	0	3	0	328	0	0	292	0
Intersection Summary											

OPENING YEAR 1B

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

OPENING YEAR 1B

30: Beltline Rd

01/15/2025

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right	No			No			No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	62	0	0	3	0	302	0	0	268	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1738	0	0	1745	0	1798	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00	
Protected Option Allowed	No			No			No			No	
Reference Time (s)	0.0			0.0			0.0			0.0	
Adj Reference Time (s)	0.0			0.0			0.0			0.0	
Permitted Option											
Adj Saturation A (vph)	0	1521		0	1442		120		0	120	
Reference Time A (s)	0.0	4.9		0.0	0.2		302.3		0.0	267.5	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	10.6	12.3		8.1	8.2		NA		NA	NA	
Reference Time (s)	4.9			0.2							
Adj Reference Time (s)	8.9			8.0							
Split Option											
Ref Time Combined (s)	0.0	4.3		0.0	0.2		20.2		0.0	17.8	
Ref Time Seperate (s)	2.6	0.0		0.1	0.0		19.4		0.4	17.3	
Reference Time (s)	4.3	4.3		0.2	0.2		20.2		17.8	17.8	
Adj Reference Time (s)	8.3	8.3		8.0	8.0		24.2		21.8	21.8	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	8.9		Err		Err						
Split Option (s)	16.3		24.2		21.8						
Minimum (s)	8.9		24.2		21.8		54.9				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization	45.7%			ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.											

OPENING YEAR 1B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.992			0.920			0.979			0.988	
Fl _t Protected		0.994			0.997						0.986	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Fl _t Permitted		0.994			0.997						0.986	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	59	4	12	60	105	0	180	33	88	202	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	213	0	0	319	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 47.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.979			0.988	
Flt Protected		0.994			0.997						0.986	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Flt Permitted		0.994			0.997						0.986	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	59	4	12	60	105	0	180	33	88	202	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	213	0	0	319	0
Intersection Summary												

OPENING YEAR 1B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

31: 2nd Ave SE

01/15/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	66	0	0	163	0	0	196	0	0	294	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1856	0	0	1848	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1856		0	352	
Reference Time A (s)	0.0	6.6		0.0	13.3		0.0	12.7		0.0	100.1	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.7	19.3		NA	NA		NA	NA	
Reference Time (s)	6.6			13.3			12.7			100.1		
Adj Reference Time (s)	10.6			17.3			16.7			104.1		
Split Option												
Ref Time Combined (s)	0.0	4.2		0.0	11.3		0.0	12.7		0.0	19.1	
Ref Time Seperate (s)	0.5	3.4		0.7	3.8		0.0	10.7		5.4	12.0	
Reference Time (s)	4.2	4.2		11.3	11.3		12.7	12.7		19.1	19.1	
Adj Reference Time (s)	8.2	8.2		15.3	15.3		16.7	16.7		23.1	23.1	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.3		104.1									
Split Option (s)	23.6		39.8									
Minimum (s)	17.3		39.8		57.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	47.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
31: 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	5.7											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	8	54	4	11	55	97	0	166	30	81	186	27
Future Vol, veh/h	8	54	4	11	55	97	0	166	30	81	186	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	59	4	12	60	105	0	180	33	88	202	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	672	606	217	621	604	197	231	0	0	213	0	0
Stage 1	393	393	-	197	197	-	-	-	-	-	-	-
Stage 2	279	213	-	424	407	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	370	411	823	400	412	844	1337	-	-	1357	-	-
Stage 1	632	606	-	805	738	-	-	-	-	-	-	-
Stage 2	728	726	-	608	597	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	269	380	823	331	381	844	1337	-	-	1357	-	-
Mov Cap-2 Maneuver	269	380	-	331	381	-	-	-	-	-	-	-
Stage 1	632	561	-	805	738	-	-	-	-	-	-	-
Stage 2	585	726	-	501	552	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	16.9		14.4		0		2.2					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1337	-	-	557	374	1357	-	-				
HCM Lane V/C Ratio	-	-	-	0.318	0.192	0.065	-	-				
HCM Control Delay (s)	0	-	-	14.4	16.9	7.8	0	-				
HCM Lane LOS	A	-	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.4	0.7	0.2	-	-				

OPENING YEAR 1B
38: 2nd Ave SE

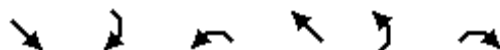
01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.1%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1B

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other

OPENING YEAR 1B

38: 2nd Ave SE

01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Intersection Summary						

OPENING YEAR 1B

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1B

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	112	24	20	120	13	12
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	136	0	0	140	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	8.8		0.0	27.9	26.2	
Adj Saturation B (vph)	1850		NA	NA	NA	
Reference Time B (s)	8.8		NA	NA	NA	
Reference Time (s)	8.8			27.9		
Adj Reference Time (s)	12.8			31.9		
Split Option						
Ref Time Combined (s)	8.8		0.0	8.9	1.7	
Ref Time Seperate (s)	7.3		1.3	7.6	0.9	
Reference Time (s)	8.8		8.9	8.9	1.7	
Adj Reference Time (s)	12.8		12.9	12.9	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	31.9		Err			
Split Option (s)	25.7		8.0			
Minimum (s)	25.7		8.0	33.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
38: 2nd Ave SE

01/15/2025

Intersection						
Int Delay, s/veh	1.3					
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	112	24	20	120	13	12
Future Vol, veh/h	112	24	20	120	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	26	22	130	14	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	309	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1434	-	683	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1434	-	671	914
Mov Cap-2 Maneuver	-	-	-	-	671	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	841	-
Approach	SE		NW		NE	
HCM Control Delay, s	0		1.1		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER	
Capacity (veh/h)	769	1434	-	-	-	
HCM Lane V/C Ratio	0.035	0.015	-	-	-	
HCM Control Delay (s)	9.9	7.5	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	0	-	-	-	

OPENING YEAR 1B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.936	0.865						
Flt Protected					0.996					0.950		
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996					0.950		
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	480				697				1407			
Travel Time (s)	10.9				15.8				32.0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 31.0%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Intersection Summary												

OPENING YEAR 1B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	45	0	0	127	0	0	8	0	0	68	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	2.8		0.0	18.6		0.0	0.6		0.0	67.8	
Adj Saturation B (vph)	0	1900		0	0		0	1615		0	0	
Reference Time B (s)	0.0	2.8		8.7	16.7		0.0	0.6		12.5	12.5	
Reference Time (s)	2.8		16.7			0.6			12.5			
Adj Reference Time (s)	8.0		20.7			8.0			16.5			
Split Option												
Ref Time Combined (s)	0.0	2.8		0.0	8.7		0.0	0.6		0.0	4.5	
Ref Time Seperate (s)	0.0	2.8		0.7	3.9		0.0	0.0		4.5	0.0	
Reference Time (s)	2.8	2.8		8.7	8.7		0.6	0.6		4.5	4.5	
Adj Reference Time (s)	8.0	8.0		12.7	12.7		8.0	8.0		8.5	8.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.7		16.5									
Split Option (s)	20.7		16.5									
Minimum (s)	20.7		16.5		37.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B

49: 6th St SE

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	0	11	62	65	0	0	9	74	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	216	157	0	178	153	5	0	0	0	9	0	0
Stage 1	148	148	-	5	5	-	-	-	-	-	-	-
Stage 2	68	9	-	173	148	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	740	735	-	784	739	1078	-	-	-	1611	-	-
Stage 1	855	775	-	1017	892	-	-	-	-	-	-	-
Stage 2	942	888	-	829	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	626	701	-	-	705	1078	-	-	-	1611	-	-
Mov Cap-2 Maneuver	626	701	-	-	705	-	-	-	-	-	-	-
Stage 1	855	739	-	1017	892	-	-	-	-	-	-	-
Stage 2	824	888	-	739	739	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s					0		7.3					
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	-	-	-	-	-	1611	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	0.046	-	-				
HCM Control Delay (s)	0	-	-	-	-	7.3	0	-				
HCM Lane LOS	A	-	-	-	-	A	A	-				
HCM 95th %tile Q(veh)	-	-	-	-	-	0.1	-	-				

OPENING YEAR 1B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998						0.990				
Flt Protected		0.999			0.999			0.994				
Satd. Flow (prot)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Flt Permitted		0.999			0.999			0.994				
Satd. Flow (perm)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1465			942			1407			1471	
Travel Time (s)		33.3			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	105	2	4	196	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	200	0	0	41	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.990				
Flt Protected		0.999			0.999			0.994				
Satd. Flow (prot)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Flt Permitted		0.999			0.999			0.994				
Satd. Flow (perm)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1465			942			1407			1471	
Travel Time (s)		33.3			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	105	2	4	196	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	200	0	0	41	0	0	55	0
Intersection Summary												

OPENING YEAR 1B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	101	0	0	184	0	0	38	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1892	0	0	1898	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1627		0	1599		0	630		0	1900	
Reference Time A (s)	0.0	7.5		0.0	13.8		0.0	7.2		0.0	3.2	
Adj Saturation B (vph)	NA	NA		0	0		0	0		0	1900	
Reference Time B (s)	NA	NA		8.3	19.6		8.3	10.4		0.0	3.2	
Reference Time (s)	7.5			13.8			7.2			3.2		
Adj Reference Time (s)	11.5			17.8			11.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.4		0.0	11.6		0.0	2.4		0.0	3.2	
Ref Time Seperate (s)	0.1	6.1		0.3	11.4		0.3	1.9		0.0	3.2	
Reference Time (s)	6.4	6.4		11.6	11.6		2.4	2.4		3.2	3.2	
Adj Reference Time (s)	10.4	10.4		15.6	15.6		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.8		11.2									
Split Option (s)	26.0		16.0									
Minimum (s)	17.8		11.2		29.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Future Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	105	2	4	196	0	5	33	3	0	55	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.6	8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	2%	2%	0%
Vol Thru, %	79%	96%	98%	100%
Vol Right, %	8%	2%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	101	184	51
LT Vol	5	2	4	0
Through Vol	30	97	180	51
RT Vol	3	2	0	0
Lane Flow Rate	41	110	200	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.054	0.133	0.239	0.072
Departure Headway (Hd)	4.674	4.368	4.301	4.678
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	767	823	840	767
Service Time	2.694	2.383	2.301	2.697
HCM Lane V/C Ratio	0.053	0.134	0.238	0.072
HCM Control Delay	8	8.1	8.6	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.9	0.2

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	97	3	114	252	299	70
Future Volume (vph)	97	3	114	252	299	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.974	
Flt Protected	0.954			0.985		
Satd. Flow (prot)	1770	0	0	1835	1814	0
Flt Permitted	0.954			0.985		
Satd. Flow (perm)	1770	0	0	1835	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	3	124	274	325	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	398	401	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.1% ICU Level of Service B

Analysis Period (min) 15

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.996				0.974	
Flt Protected	0.954			0.985		
Satd. Flow (prot)	1770	0	0	1835	1814	0
Flt Permitted	0.954			0.985		
Satd. Flow (perm)	1770	0	0	1835	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	97	3	114	252	299	70
Future Volume (vph)	97	3	114	252	299	70
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	105	3	124	274	325	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	398	401	0
Intersection Summary						

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	97	3	114	252	299	70
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	100	0	0	366	369	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.97	0.85
Saturated Flow (vph)	1800	0	0	1870	1846	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	321	1846	
Reference Time A (s)	100.0		0.0	136.6	24.0	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				136.6	24.0	
Adj Reference Time (s)				140.6	28.0	
Split Option						
Ref Time Combined (s)	6.7		0.0	23.5	24.0	
Ref Time Seperate (s)	6.5		7.6	15.9	19.4	
Reference Time (s)	6.7		23.5	23.5	24.0	
Adj Reference Time (s)	10.7		27.5	27.5	28.0	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		140.6			
Split Option (s)	10.7		55.5			
Minimum (s)	10.7		55.5		66.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		55.1%		ICU Level of Service		B
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
53: IA 136 & 13th Ave SE

01/15/2025

Intersection

Int Delay, s/veh 3.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 97 3 114 252 299 70

Future Vol, veh/h 97 3 114 252 299 70

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 105 3 124 274 325 76

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 885 363 401 0 - 0

Stage 1 363 - - - - -

Stage 2 522 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 315 682 1158 - - -

Stage 1 704 - - - - -

Stage 2 595 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 275 682 1158 - - -

Mov Cap-2 Maneuver 401 - - - - -

Stage 1 615 - - - - -

Stage 2 595 - - - - -

Approach EB NB SB

HCM Control Delay, s 17.1 2.6 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1158 - 406 - -

HCM Lane V/C Ratio 0.107 - 0.268 - -

HCM Control Delay (s) 8.5 0 17.1 - -

HCM Lane LOS A A C - -

HCM 95th %tile Q(veh) 0.4 - 1.1 - -

OPENING YEAR 1B
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.0%											
Analysis Period (min)	15											
ICU Level of Service A												

OPENING YEAR 1B
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Intersection Summary												

OPENING YEAR 1B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	85	0	0	99	0	0	51	0	0	20	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	5.8		0.0	16.4		0.0	3.7		0.0	2.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	13.5		10.3	14.5		9.3	11.6		8.9	9.4	
Reference Time (s)	5.8			14.5			3.7			2.2		
Adj Reference Time (s)	9.8			18.5			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.5		0.0	6.5		0.0	3.6		0.0	1.4	
Ref Time Seperate (s)	0.5	4.1		2.3	3.5		1.3	0.1		0.9	0.1	
Reference Time (s)	5.5	5.5		6.5	6.5		3.6	3.6		1.4	1.4	
Adj Reference Time (s)	9.5	9.5		10.5	10.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.5		8.0									
Split Option (s)	20.0		16.0									
Minimum (s)	18.5		8.0		26.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	70	14	38	60	10	22	1	33	14	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	84	0	0	240	241	77	253	243	65
Stage 1	-	-	-	-	-	-	95	95	-	141	141	-
Stage 2	-	-	-	-	-	-	145	146	-	112	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1531	-	-	1513	-	-	714	660	984	700	659	999
Stage 1	-	-	-	-	-	-	912	816	-	862	780	-
Stage 2	-	-	-	-	-	-	858	776	-	893	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1531	-	-	1513	-	-	691	639	984	659	638	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	639	-	659	638	-
Stage 1	-	-	-	-	-	-	907	811	-	857	760	-
Stage 2	-	-	-	-	-	-	829	756	-	857	806	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.6			9.6			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	836	1531	-	-	1513	-	-	718				
HCM Lane V/C Ratio	0.066	0.006	-	-	0.025	-	-	0.03				
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1				

OPENING YEAR 1B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	0	0	60	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	60	0	0	37	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free			Stop			Stop			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1B
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	22	0	0	60	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	60	0	0	37	0	0	8	0
Intersection Summary												

OPENING YEAR 1B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	20	0	0	55	0	0	34	0	0	7	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Reference Time (s)	1.3		3.5			2.5			0.4			
Adj Reference Time (s)	8.0		8.0			8.0			8.0			
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Ref Time Seperate (s)	0.0	1.3		0.0	3.5		0.0	0.0		0.0	0.4	
Reference Time (s)	1.3	1.3		3.5	3.5		2.5	2.5		0.4	0.4	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

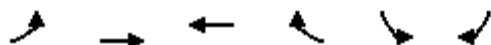
OPENING YEAR 1B
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	0	0	60	0	0	0	37	0	8	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	22	0	0	86	82	22	101	82	60
Stage 1	-	-	-	-	-	-	22	22	-	60	60	-
Stage 2	-	-	-	-	-	-	64	60	-	41	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1593	-	-	900	808	1055	880	808	1005
Stage 1	-	-	-	-	-	-	996	877	-	951	845	-
Stage 2	-	-	-	-	-	-	947	845	-	974	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1544	-	-	1593	-	-	894	808	1055	849	808	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	808	-	849	808	-
Stage 1	-	-	-	-	-	-	996	877	-	951	845	-
Stage 2	-	-	-	-	-	-	938	845	-	940	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1055	1544	-	-	1593	-	-	808				
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.009				
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9.5				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	57	59	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	93	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 14.7%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

01/15/2025



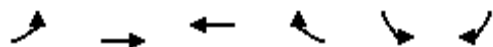
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

Area Type: Other

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

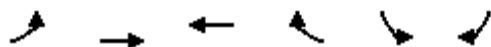
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	2	57	59	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	93	0	44	0
Intersection Summary						

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

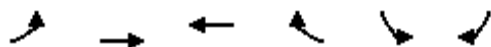
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	2	52	54	31	39	2
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	54	85	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.95	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1796	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1796		120	
Reference Time A (s)	0.0	5.2	5.7		41.1	
Adj Saturation B (vph)	0	0	1796		NA	
Reference Time B (s)	8.1	11.4	5.7		NA	
Reference Time (s)		5.2	5.7			
Adj Reference Time (s)		9.2	9.7			
Split Option						
Ref Time Combined (s)	0.0	3.4	5.7		2.7	
Ref Time Seperate (s)	0.1	3.3	3.6		2.6	
Reference Time (s)	3.4	3.4	5.7		2.7	
Adj Reference Time (s)	8.0	8.0	9.7		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	9.7		Err			
Split Option (s)	17.7		8.0			
Minimum (s)	9.7		8.0		17.7	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		14.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
62: 2nd Ave SE & 7th St SE

01/15/2025

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	54	31	39	2
Future Vol, veh/h	2	52	54	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	57	59	34	42	2
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	137	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1501	-	-	-	856	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1501	-	-	-	855	985
Mov Cap-2 Maneuver	-	-	-	-	855	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	962	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		9.4	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1501	-	-	-	861	
HCM Lane V/C Ratio	0.001	-	-	-	0.052	
HCM Control Delay (s)	7.4	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

OPENING YEAR 1B

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1B
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Intersection Summary												

OPENING YEAR 1B

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	41	0	0	30	0	0	0	0	0	12	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	3.8		0.0	2.4		0.0	0.0		0.0	1.1	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.5	10.6		8.3	9.9		0.0	0.0		8.4	8.8	
Reference Time (s)	3.8			2.4			0.0			1.1		
Adj Reference Time (s)	8.0			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.6		0.0	1.9		0.0	0.0		0.0	0.8	
Ref Time Seperate (s)	0.5	2.0		0.3	1.4		0.0	0.0		0.4	0.0	
Reference Time (s)	2.6	2.6		1.9	1.9		0.0	0.0		0.8	0.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	34	3	4	24	4	0	0	0	7	0	7
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	32	18	4	36	21	0	7	0	0	0	0	0
Stage 1	18	18	-	0	0	-	-	-	-	-	-	-
Stage 2	14	0	-	36	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	876	1080	970	873	-	1614	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	980	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	876	1080	939	873	-	1614	-	-	-	-	-
Mov Cap-2 Maneuver	-	876	-	939	873	-	-	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	940	878	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1614	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

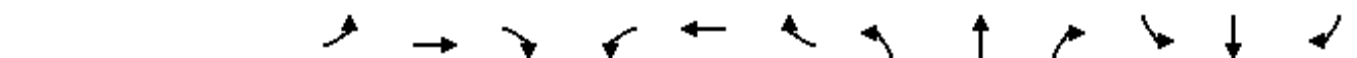
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.991			0.979			0.926	
Flt Protected		0.977			0.991			0.972			0.983	
Satd. Flow (prot)	0	1807	0	0	1829	0	0	1773	0	0	1696	0
Flt Permitted		0.888			0.968			0.903			0.935	
Satd. Flow (perm)	0	1643	0	0	1787	0	0	1647	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	45	5	5	22	2	11	5	3	17	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	29	0	0	19	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.14			0.04			0.03			0.07	
Control Delay		9.0			8.1			7.8			5.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			8.1			7.8			5.6	

OPENING YEAR 1B

70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.0			8.1			7.8			5.6	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.9

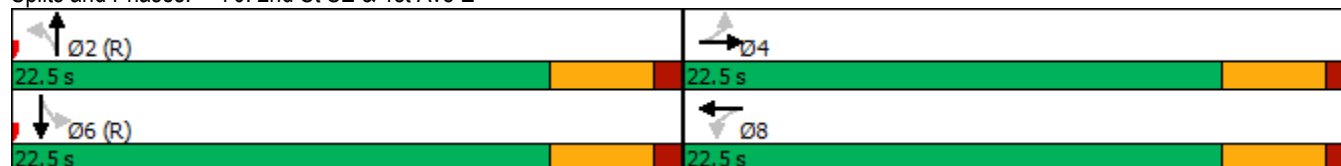
Intersection LOS: A

Intersection Capacity Utilization 21.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.991			0.979			0.926	
Flt Protected		0.977			0.991			0.972			0.983	
Satd. Flow (prot)	0	1807	0	0	1829	0	0	1773	0	0	1696	0
Flt Permitted		0.888			0.968			0.903			0.935	
Satd. Flow (perm)	0	1643	0	0	1787	0	0	1647	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

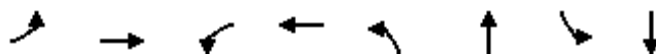
OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	43	45	5	5	22	2	11	5	3	17	5	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	29	0	0	19	0	0	49	0
Intersection Summary												

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	20	10	5	16	5
Future Volume (vph)	40	41	5	20	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.14		0.04		0.03		0.07
Control Delay		9.0		8.1		7.8		5.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.0		8.1		7.8		5.6
LOS		A		A		A		A
Approach Delay		9.0		8.1		7.8		5.6
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.9

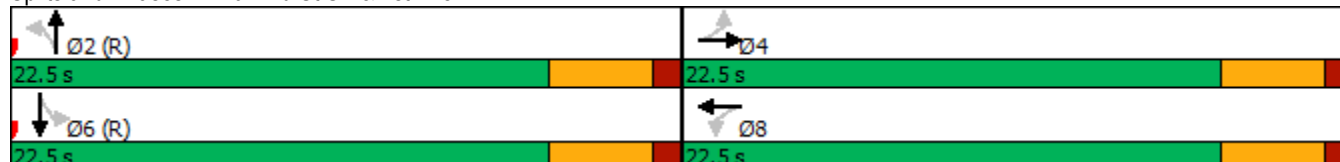
Intersection LOS: A

Intersection Capacity Utilization 21.7%

ICU Level of Service A

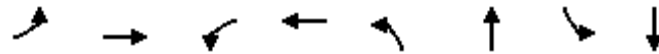
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

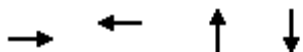
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	93	29	19	49
v/c Ratio	0.14	0.04	0.03	0.07
Control Delay	9.0	8.1	7.8	5.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	8.1	7.8	5.6
Queue Length 50th (ft)	14	4	2	3
Queue Length 95th (ft)	35	15	11	17
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	660	716	660	661
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.04	0.03	0.07
Intersection Summary				

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	86	0	0	27	0	0	18	0	0	46	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1861	0	0	1801	0	0	1715	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	860		0	1775		0	1106		0	1585	
Reference Time A (s)	0.0	12.0		0.0	1.8		0.0	2.0		0.0	3.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	10.7	13.6		8.3	9.7		8.7	9.2		9.1	11.2	
Reference Time (s)	12.0			1.8			2.0			3.5		
Adj Reference Time (s)	16.5			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	5.6		0.0	1.7		0.0	1.2		0.0	3.2	
Ref Time Seperate (s)	2.7	2.6		0.3	1.3		0.7	0.3		1.1	0.4	
Reference Time (s)	5.6	5.6		1.7	1.7		1.2	1.2		3.2	3.2	
Adj Reference Time (s)	10.1	10.1		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.5		9.5									
Split Option (s)	19.6		19.0									
Minimum (s)	16.5		9.5		26.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	21.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	22	2	11	5	3	17	5	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	374	360	35	161	597	49	449	196	97	278	113	347
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	644	899	88	169	1492	123	805	490	243	425	281	867
Grp Volume(v), veh/h	93	0	0	29	0	0	19	0	0	49	0	0
Grp Sat Flow(s),veh/h/ln	1630	0	0	1784	0	0	1538	0	0	1574	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.46		0.05	0.17		0.07	0.58		0.16	0.35		0.55
Lane Grp Cap(c), veh/h	769	0	0	807	0	0	742	0	0	737	0	0
V/C Ratio(X)	0.12	0.00	0.00	0.04	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	769	0	0	807	0	0	742	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	8.2	0.0	0.0	8.2	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	0.0	0.0	8.3	0.0	0.0	8.2	0.0	0.0	8.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		93			29			19			49	
Approach Delay, s/veh		8.8			8.3			8.2			8.5	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.3		3.4		2.8		2.4				
Green Ext Time (p_c), s		0.0		0.3		0.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.6								
HCM 6th LOS				A								

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	22	2	11	5	3	17	5	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	374	360	35	161	597	49	449	196	97	278	113	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	8.8	0.0	0.0	8.3	0.0	0.0	8.2	0.0	0.0	8.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	93			29			19			49		
Approach Delay, s/veh	8.8			8.3			8.2			8.5		
Approach LOS	A			A			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	8.0			8.0			8.0			8.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.3			5.3			5.4			5.3		
Max Q Clear (g_c+I1), s	2.3			3.4			2.8			2.4		
Green Ext Time (g_e), s	0.0			0.3			0.1			0.1		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	805			644			425			169		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	490			899			281			1492		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	243			88			867			123		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R			L+T+R			L+T+R			L+T+R		

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	19	0	93	0	49	0	29
Grp Sat Flow (s), veh/h/ln	0	1538	0	1630	0	1574	0	1784
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.4	0.0	0.8	0.0	0.4
Perm LT Sat Flow (s_l), veh/h/ln	0	1399	0	1409	0	1430	0	1376
Shared LT Sat Flow (s_sh), veh/h/ln	0	1818	0	1828	0	1838	0	1854
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.2	0.0	17.6	0.0	17.7	0.0	16.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.5	0.0	2.3	0.0	3.7	0.0	7.9
Serve Time pre Blk (g_fs), s	0.0	0.3	0.0	1.4	0.0	0.8	0.0	0.4
Prop LT Inside Lane (P_L)	0.00	0.58	0.00	0.46	0.00	0.35	0.00	0.17
Lane Grp Cap (c), veh/h	0	742	0	769	0	737	0	807
V/C Ratio (X)	0.00	0.03	0.00	0.12	0.00	0.07	0.00	0.04
Avail Cap (c_a), veh/h	0	742	0	769	0	737	0	807
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.5	0.0	8.3	0.0	8.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	8.8	0.0	8.5	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.5	0.0	0.2	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OPENING YEAR 1B
70: 2nd St SE & 1st Ave E

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.05	0.00	0.55	0.00	0.07
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

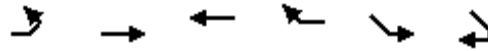
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.77	1.74	1.71	1.75
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	93	29	19	49
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.08	1.97	1.96	2.01
Bicycle LOS	B	B	B	B

OPENING YEAR 1B

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01/15/2025

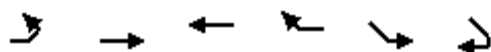


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Traffic Volume (vph)	0	96	0	0	0	0
Future Volume (vph)	0	96	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frnt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	104	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	104	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 8.4%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1B

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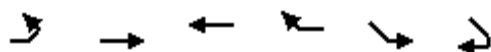
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Intersection Summary						

Area Type: Other

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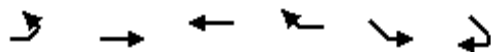


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	96	0	0	0	0
Future Volume (vph)	0	96	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	104	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	104	0	0	0	0
Intersection Summary						

OPENING YEAR 1B

72:

01/15/2025

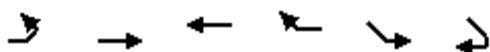


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1B

72:

01/15/2025



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	96	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	96	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	6.1	0.0	0.0		0.0
Adj Reference Time (s)	0.0	10.1	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	6.1	0.0		0.0	
Adj Saturation B (vph)	0	1900	0		NA	
Reference Time B (s)	0.0	6.1	0.0		NA	
Reference Time (s)		6.1	0.0			
Adj Reference Time (s)		10.1	8.0			
Split Option						
Ref Time Combined (s)	0.0	6.1	0.0		0.0	
Ref Time Seperate (s)	0.0	6.1	0.0		0.0	
Reference Time (s)	6.1	6.1	0.0		0.0	
Adj Reference Time (s)	10.1	10.1	0.0		0.0	
Summary	EB WB		SE		Combined	
Protected Option (s)	10.1		NA			
Permitted Option (s)	10.1		Err			
Split Option (s)	10.1		0.0			
Minimum (s)	10.1		0.0		10.1	
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		8.4%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.941			0.930			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	10	20	14	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	60	0	0	46	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1B
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.941			0.930			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	3	10	20	14	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	60	0	0	46	0	0	77	0
Intersection Summary												

OPENING YEAR 1B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	30	0	0	55	0	0	42	0	0	71	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1760	0	0	1747	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	992		0	1674		0	1567		0	1102	
Reference Time A (s)	0.0	3.6		0.0	3.9		0.0	3.2		0.0	7.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.2	10.0		9.2	11.8		8.9	10.9		10.5	12.8	
Reference Time (s)	3.6			3.9			3.2			7.7		
Adj Reference Time (s)	8.0			8.0			8.0			11.7		
Split Option												
Ref Time Combined (s)	0.0	2.0		0.0	3.8		0.0	2.9		0.0	4.8	
Ref Time Seperate (s)	1.2	0.2		1.2	0.9		0.9	0.4		2.5	1.0	
Reference Time (s)	2.0	2.0		3.8	3.8		2.9	2.9		4.8	4.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.8	8.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		11.7									
Split Option (s)	16.0		16.8									
Minimum (s)	8.0		11.7		19.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

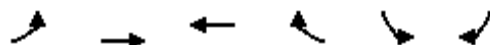
OPENING YEAR 1B
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Future Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	3	10	20	14	26	15	7	24	40	16	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	13	0	0	134	128	8	131	120	27
Stage 1	-	-	-	-	-	-	48	48	-	67	67	-
Stage 2	-	-	-	-	-	-	86	80	-	64	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1570	-	-	1606	-	-	838	763	1074	841	770	1048
Stage 1	-	-	-	-	-	-	965	855	-	943	839	-
Stage 2	-	-	-	-	-	-	922	828	-	947	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1606	-	-	792	743	1074	801	750	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	792	743	-	801	750	-
Stage 1	-	-	-	-	-	-	952	844	-	931	828	-
Stage 2	-	-	-	-	-	-	875	817	-	907	840	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.4			2.4			9.2			9.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	908	1570	-	-	1606	-	-	842				
HCM Lane V/C Ratio	0.05	0.012	-	-	0.012	-	-	0.092				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3				

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	30	44	25	8	24
Future Volume (vph)	13	30	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.900	
Flt Protected		0.985			0.987	
Satd. Flow (prot)	0	1835	1771	0	1655	0
Flt Permitted		0.985			0.987	
Satd. Flow (perm)	0	1835	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	33	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	47	75	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 19.0% ICU Level of Service A						
Analysis Period (min) 15						

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

01/15/2025



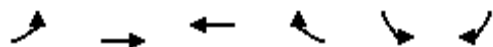
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.900	
Flt Protected		0.985			0.987	
Satd. Flow (prot)	0	1835	1771	0	1655	0
Flt Permitted		0.985			0.987	
Satd. Flow (perm)	0	1835	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

Area Type: Other

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

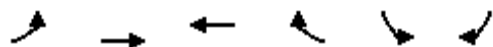
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	30	44	25	8	24
Future Volume (vph)	13	30	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	14	33	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	47	75	0	35	0
Intersection Summary						

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

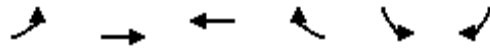
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	13	30	44	25	8	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	43	69	0	32	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1871	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	330	1797		111	
Reference Time A (s)	0.0	15.6	4.6		34.6	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	8.9	10.8	4.6		NA	
Reference Time (s)		10.8	4.6			
Adj Reference Time (s)		14.8	8.6			
Split Option						
Ref Time Combined (s)	0.0	2.8	4.6		2.3	
Ref Time Seperate (s)	0.9	1.9	2.9		0.6	
Reference Time (s)	2.8	2.8	4.6		2.3	
Adj Reference Time (s)	8.0	8.0	8.6		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	14.8		Err			
Split Option (s)	16.6		8.0			
Minimum (s)	14.8		8.0		22.8	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		19.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
80: Beltline Rd & 8th St NW

01/15/2025

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	30	44	25	8	24
Future Vol, veh/h	13	30	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	33	48	27	9	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	75	0	-	0	123	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1524	-	-	-	872	1003
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	864	1003
Mov Cap-2 Maneuver	-	-	-	-	864	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	962	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1524	-	-	-	964	
HCM Lane V/C Ratio	0.009	-	-	-	0.036	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

OPENING YEAR 1B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.963			0.939			0.897	
Flt Protected		0.998			0.994			0.978			0.994	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1661	0
Flt Permitted		0.998			0.994			0.978			0.994	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1661	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	2	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.963			0.939			0.897	
Flt Protected		0.998			0.994			0.978			0.994	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1661	0
Flt Permitted		0.998			0.994			0.978			0.994	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1661	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	2	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	17	0
Intersection Summary												

OPENING YEAR 1B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	106	0	0	11	0	0	16	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.88	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1676	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1732		0	1010		0	654		0	1633	
Reference Time A (s)	0.0	5.8		0.0	12.6		0.0	2.0		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.2	13.3		8.8	15.0		8.3	8.8		8.1	9.1	
Reference Time (s)	5.8			12.6			2.0			1.2		
Adj Reference Time (s)	9.8			16.6			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	7.0		0.0	0.8		0.0	1.1	
Ref Time Seperate (s)	0.2	5.0		0.8	4.3		0.3	0.1		0.1	0.1	
Reference Time (s)	5.3	5.3		7.0	7.0		0.8	0.8		1.1	1.1	
Adj Reference Time (s)	9.3	9.3		11.0	11.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.6		8.0									
Split Option (s)	20.3		16.0									
Minimum (s)	16.6		8.0		24.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	20.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	2	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	2	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	86	1	13	71	32	5	1	5	2	2	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	87	0	0	214	222	87	209	206	87
Stage 1	-	-	-	-	-	-	93	93	-	113	113	-
Stage 2	-	-	-	-	-	-	121	129	-	96	93	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1489	-	-	1509	-	-	743	677	971	748	691	971
Stage 1	-	-	-	-	-	-	914	818	-	892	802	-
Stage 2	-	-	-	-	-	-	883	789	-	911	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1509	-	-	725	670	971	737	683	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	670	-	737	683	-
Stage 1	-	-	-	-	-	-	912	816	-	890	795	-
Stage 2	-	-	-	-	-	-	861	782	-	903	816	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.5			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	813	1489	-	-	1509	-	-	889				
HCM Lane V/C Ratio	0.015	0.002	-	-	0.009	-	-	0.02				
HCM Control Delay (s)	9.5	7.4	0	-	7.4	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

OPENING YEAR 1B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.975			0.940			0.940	
Flt Protected		0.980			0.999			0.973			0.982	
Satd. Flow (prot)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Flt Permitted		0.980			0.999			0.973			0.982	
Satd. Flow (perm)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	3	12	1	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	53	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.8%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.975			0.940			0.940	
Flt Protected		0.980			0.999			0.973			0.982	
Satd. Flow (prot)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Flt Permitted		0.980			0.999			0.973			0.982	
Satd. Flow (perm)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	3	12	1	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	53	0	0	36	0	0	36	0
Intersection Summary												

OPENING YEAR 1B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

96: 5th St NW & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	23	0	0	49	0	0	33	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1729	0	0	1846	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	339	0		1838	0		1099	0		1582	
Reference Time A (s)	0.0	8.1	0.0		3.2	0.0		3.6	0.0		2.5	
Adj Saturation B (vph)	0	0	0		0	0		0	0		0	
Reference Time B (s)	8.6	9.6	8.1		11.2	9.2		10.3	8.8		10.3	
Reference Time (s)	8.1				3.2			3.6			2.5	
Adj Reference Time (s)	12.1				8.0			8.0			8.0	
Split Option												
Ref Time Combined (s)	0.0	1.6	0.0		3.2	0.0		2.3	0.0		2.3	
Ref Time Seperate (s)	0.6	0.2	0.1		2.5	1.2		0.0	0.8		0.4	
Reference Time (s)	1.6	1.6	3.2		3.2	2.3		2.3	2.3		2.3	
Adj Reference Time (s)	8.0	8.0	8.0		8.0	8.0		8.0	8.0		8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	12.1		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	12.1		8.0		20.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.8%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
96: 5th St NW & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	3	12	1	42	10	20	0	16	13	7	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	15	0	0	90	83	9	86	84	47
Stage 1	-	-	-	-	-	-	29	29	-	49	49	-
Stage 2	-	-	-	-	-	-	61	54	-	37	35	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1603	-	-	895	807	1073	900	806	1022
Stage 1	-	-	-	-	-	-	988	871	-	964	854	-
Stage 2	-	-	-	-	-	-	950	850	-	978	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1603	-	-	871	801	1073	882	800	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	871	801	-	882	800	-
Stage 1	-	-	-	-	-	-	982	866	-	958	853	-
Stage 2	-	-	-	-	-	-	927	849	-	957	861	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.1			8.9			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	953	1554	-	-	1603	-	-	922				
HCM Lane V/C Ratio	0.038	0.006	-	-	0.001	-	-	0.039				
HCM Control Delay (s)	8.9	7.3	0	-	7.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Future Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.981						0.953	
Flt Protected		0.984									0.968	
Satd. Flow (prot)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Flt Permitted		0.984									0.968	
Satd. Flow (perm)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	78	22	0	75	12	0	9	0	62	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	87	0	0	9	0	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	32.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.981						0.953	
Flt Protected		0.984									0.968	
Satd. Flow (prot)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Flt Permitted		0.984									0.968	
Satd. Flow (perm)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Future Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	49	78	22	0	75	12	0	9	0	62	0	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	87	0	0	9	0	0	95	0
Intersection Summary												

OPENING YEAR 1B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	137	0	0	80	0	0	8	0	0	87	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1828	0	0	1861	0	0	1900	0	0	1743	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	300		0	1861		0	1900		0	159	
Reference Time A (s)	0.0	54.8		0.0	5.2		0.0	0.5		0.0	65.8	
Adj Saturation B (vph)	0	0		0	1861		0	1900		0	0	
Reference Time B (s)	11.0	17.0		0.0	5.2		0.0	0.5		11.8	14.0	
Reference Time (s)	17.0			5.2			0.5			14.0		
Adj Reference Time (s)	21.0			9.2			8.0			18.0		
Split Option												
Ref Time Combined (s)	0.0	9.0		0.0	5.2		0.0	0.5		0.0	6.0	
Ref Time Seperate (s)	3.0	4.7		0.0	4.4		0.0	0.5		3.8	0.0	
Reference Time (s)	9.0	9.0		5.2	5.2		0.5	0.5		6.0	6.0	
Adj Reference Time (s)	13.0	13.0		9.2	9.2		8.0	8.0		10.0	10.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.0		18.0									
Split Option (s)	22.2		18.0									
Minimum (s)	21.0		18.0		39.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	32.5%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

Intersection				
Intersection Delay, s/veh	3.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	149	87	9	95
Demand Flow Rate, veh/h	152	88	9	97
Vehicles Circulating, veh/h	63	59	193	76
Vehicles Exiting, veh/h	110	143	22	71
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	3.4	3.3	3.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	152	88	9	97
Cap Entry Lane, veh/h	1294	1299	1133	1277
Entry HV Adj Factor	0.983	0.983	0.980	0.979
Flow Entry, veh/h	149	87	9	95
Cap Entry, veh/h	1272	1277	1111	1251
V/C Ratio	0.117	0.068	0.008	0.076
Control Delay, s/veh	3.8	3.4	3.3	3.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.966			0.919			0.993	
Flt Protected		0.992			0.968			0.998			0.971	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Flt Permitted		0.992			0.968			0.998			0.971	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 27.4%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.966			0.919			0.993	
Flt Protected		0.992			0.968			0.998			0.971	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Flt Permitted		0.992			0.968			0.998			0.971	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	38	0
Intersection Summary												

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	12	0	0	97	0	0	114	0	0	35	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1827	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1802	0	579	0	1737	0	289				
Reference Time A (s)	0.0	0.8	0.0	20.1	0.0	7.9	0.0	14.5				
Adj Saturation B (vph)	0	0	0	0	0	0	0	0				
Reference Time B (s)	8.1	8.8	12.3	14.6	8.3	15.9	9.4	10.3				
Reference Time (s)	0.8		14.6		7.9		10.3					
Adj Reference Time (s)	8.0		18.6		11.9		14.3					
Split Option												
Ref Time Combined (s)	0.0	0.8	0.0	6.6	0.0	7.9	0.0	2.3				
Ref Time Seperate (s)	0.1	0.3	4.3	0.5	0.3	2.9	1.4	0.8				
Reference Time (s)	0.8	0.8	6.6	6.6	7.9	7.9	2.3	2.3				
Adj Reference Time (s)	8.0	8.0	10.6	10.6	11.9	11.9	8.0	8.0				
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		14.3									
Split Option (s)	18.6		19.9									
Minimum (s)	18.6		14.3		32.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
102: 3rd St SW & 3rd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	5	71	8	27	4	46	74	23	13	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	169	188	14	156	152	83	15	0	0	120	0	0
Stage 1	60	60	-	91	91	-	-	-	-	-	-	-
Stage 2	109	128	-	65	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	795	707	1066	810	740	976	1603	-	-	1468	-	-
Stage 1	951	845	-	916	820	-	-	-	-	-	-	-
Stage 2	896	790	-	946	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	755	694	1066	790	726	976	1603	-	-	1468	-	-
Mov Cap-2 Maneuver	755	694	-	790	726	-	-	-	-	-	-	-
Stage 1	948	831	-	913	818	-	-	-	-	-	-	-
Stage 2	860	788	-	920	830	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10	0.3	4.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1603	-	-	825 825	1468	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016 0.128	0.016	-	-
HCM Control Delay (s)	7.3	0	-	9.4 10	7.5	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.4	0	-	-

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	90	62	32	24	13
Future Volume (vph)	53	90	62	32	24	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.915				0.953	
Flt Protected	0.982			0.968		
Satd. Flow (prot)	1674	0	0	1803	1775	0
Flt Permitted	0.982			0.968		
Satd. Flow (perm)	1674	0	0	1803	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	98	67	35	26	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	0	0	102	40	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.9% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.915				0.953	
Flt Protected	0.982			0.968		
Satd. Flow (prot)	1674	0	0	1803	1775	0
Flt Permitted	0.982			0.968		
Satd. Flow (perm)	1674	0	0	1803	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	90	62	32	24	13
Future Volume (vph)	53	90	62	32	24	13
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	58	98	67	35	26	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	0	0	102	40	0
Intersection Summary						

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	53	90	62	32	24	13
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	143	0	0	94	37	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.89	0.85	0.95	0.97	0.95	0.85
Saturated Flow (vph)	1689	0	0	1837	1800	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	113		0	166	1800	
Reference Time A (s)	152.4		0.0	67.8	2.5	
Adj Saturation B (vph)	NA		0	0	1800	
Reference Time B (s)	NA		12.1	14.1	2.5	
Reference Time (s)				14.1	2.5	
Adj Reference Time (s)				18.1	8.0	
Split Option						
Ref Time Combined (s)	10.2		0.0	6.1	2.5	
Ref Time Seperate (s)	3.8		4.1	2.0	1.6	
Reference Time (s)	10.2		6.1	6.1	2.5	
Adj Reference Time (s)	14.2		10.1	10.1	8.0	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		18.1			
Split Option (s)	14.2		18.1			
Minimum (s)	14.2		18.1		32.3	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		26.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 6.8

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations      

Traffic Vol, veh/h 53 90 62 32 24 13

Future Vol, veh/h 53 90 62 32 24 13

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 58 98 67 35 26 14

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 202 33 40 0 - 0

Stage 1 33 - - - - -

Stage 2 169 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 787 1041 1570 - - -

Stage 1 989 - - - - -

Stage 2 861 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 752 1041 1570 - - -

Mov Cap-2 Maneuver 752 - - - - -

Stage 1 945 - - - - -

Stage 2 861 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.8 4.9 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1570 - 911 - -

HCM Lane V/C Ratio 0.043 - 0.171 - -

HCM Control Delay (s) 7.4 0 9.8 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0.1 - 0.6 - -

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.998			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	34	27	57	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	85	0	0	63	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 21.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.954			0.998			0.921			0.932		
Flt Protected				0.984			0.980			0.976		
Satd. Flow (prot)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Flt Permitted				0.984			0.980			0.976		
Satd. Flow (perm)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	793			1176			645			163		
Travel Time (s)	18.0			26.7			14.7			3.7		
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	65	34	27	57	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	85	0	0	63	0	0	2	0
Intersection Summary												

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	91	0	0	78	0	0	58	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1803	0	0	1866	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1803		0	313		0	1443		0	1233	
Reference Time A (s)	0.0	6.1		0.0	29.9		0.0	4.8		0.0	0.2	
Adj Saturation B (vph)	0	1803		0	0		0	0		0	0	
Reference Time B (s)	0.0	6.1		9.7	13.0		9.6	12.1		8.1	8.1	
Reference Time (s)		6.1			13.0			4.8			0.2	
Adj Reference Time (s)		10.1			17.0			8.8			8.0	
Split Option												
Ref Time Combined (s)	0.0	6.1		0.0	5.0		0.0	4.1		0.0	0.1	
Ref Time Seperate (s)	0.0	4.0		1.7	3.3		1.6	0.0		0.1	0.0	
Reference Time (s)	6.1	6.1		5.0	5.0		4.1	4.1		0.1	0.1	
Adj Reference Time (s)	10.1	10.1		9.0	9.0		8.1	8.1		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.0		8.8									
Split Option (s)	19.1		16.1									
Minimum (s)	17.0		8.8		25.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	21.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	34	27	57	1	26	0	37	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	99	0	0	194	194	82	213	211	58
Stage 1	-	-	-	-	-	-	82	82	-	112	112	-
Stage 2	-	-	-	-	-	-	112	112	-	101	99	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1494	-	-	765	701	978	744	686	1008
Stage 1	-	-	-	-	-	-	926	827	-	893	803	-
Stage 2	-	-	-	-	-	-	893	803	-	905	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1546	-	-	1494	-	-	753	688	978	705	673	1008
Mov Cap-2 Maneuver	-	-	-	-	-	-	753	688	-	705	673	-
Stage 1	-	-	-	-	-	-	926	827	-	893	788	-
Stage 2	-	-	-	-	-	-	875	788	-	871	813	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.5			9.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	870	1546	-	-	1494	-	-	830				
HCM Lane V/C Ratio	0.072	-	-	-	0.018	-	-	0.003				
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	9.3				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0				

OPENING YEAR 1B

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Future Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.969			0.931			0.865			0.963	
Flt Protected		0.963									0.965	
Satd. Flow (prot)	0	1738	0	0	1734	0	0	1611	0	0	1731	0
Flt Permitted		0.963									0.965	
Satd. Flow (perm)	0	1738	0	0	1734	0	0	1611	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	3	0	50	52	0	0	3	78	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	102	0	0	3	0	0	107	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.3%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.969			0.931			0.865			0.963	
Flt Protected		0.963									0.965	
Satd. Flow (prot)	0	1738	0	0	1734	0	0	1611	0	0	1731	0
Flt Permitted		0.963									0.965	
Satd. Flow (perm)	0	1738	0	0	1734	0	0	1611	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Future Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	0	3	0	50	52	0	0	3	78	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	0	0	102	0	0	3	0	0	107	0
Intersection Summary												

OPENING YEAR 1B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	12	0	0	94	0	0	3	0	0	99	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.85	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1760	0	0	1754	0	0	1615	0	0	1756	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	144		0	1754		0	1615		0	147	
Reference Time A (s)	0.0	10.0		0.0	6.4		0.0	0.2		0.0	80.7	
Adj Saturation B (vph)	0	0		0	1754		0	1615		0	0	
Reference Time B (s)	8.6	8.8		0.0	6.4		0.0	0.2		12.8	14.8	
Reference Time (s)	8.8			6.4			0.2			14.8		
Adj Reference Time (s)	12.8			10.4			8.0			18.8		
Split Option												
Ref Time Combined (s)	0.0	0.8		0.0	6.4		0.0	0.2		0.0	6.8	
Ref Time Seperate (s)	0.6	0.0		0.0	3.1		0.0	0.0		4.8	0.0	
Reference Time (s)	0.8	0.8		6.4	6.4		0.2	0.2		6.8	6.8	
Adj Reference Time (s)	8.0	8.0		10.4	10.4		8.0	8.0		10.8	10.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	12.8		18.8									
Split Option (s)	18.4		18.8									
Minimum (s)	12.8		18.8		31.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	26.3%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	0	3	0	46	48	0	0	3	72	0	27
Future Vol, veh/h	9	0	3	0	46	48	0	0	3	72	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	3	0	50	52	0	0	3	78	0	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	3	0	0	113	124	2	99	99	76
Stage 1	-	-	-	-	-	-	22	22	-	76	76	-
Stage 2	-	-	-	-	-	-	91	102	-	23	23	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1619	-	-	864	766	1082	883	791	985
Stage 1	-	-	-	-	-	-	996	877	-	933	832	-
Stage 2	-	-	-	-	-	-	916	811	-	995	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1619	-	-	834	761	1082	876	785	985
Mov Cap-2 Maneuver	-	-	-	-	-	-	834	761	-	876	785	-
Stage 1	-	-	-	-	-	-	989	871	-	926	832	-
Stage 2	-	-	-	-	-	-	889	811	-	985	870	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.6			0			8.3			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1082	1490	-	-	1619	-	-	903				
HCM Lane V/C Ratio	0.003	0.007	-	-	-	-	-	0.119				
HCM Control Delay (s)	8.3	7.4	0	-	0	-	-	9.5				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4				

OPENING YEAR 1B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t											0.865	
Flt Protected					0.950			0.995				
Satd. Flow (prot)	0	0	0	0	1770	0	0	1853	0	0	1611	0
Flt Permitted					0.950			0.995				
Satd. Flow (perm)	0	0	0	0	1770	0	0	1853	0	0	1611	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	13	0	0	14	115	0	0	0	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	13	0	0	129	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 23.0%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt												0.865
Flt Protected					0.950				0.995			
Satd. Flow (prot)	0	0	0	0	1770	0	0	1853	0	0	1611	0
Flt Permitted					0.950				0.995			
Satd. Flow (perm)	0	0	0	0	1770	0	0	1853	0	0	1611	0
Link Speed (mph)	30			60			30			30		
Link Distance (ft)	364			4320			808			1371		
Travel Time (s)	8.3			49.1			18.4			31.2		
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	13	0	0	14	115	0	0	0	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	13	0	0	129	0	0	98	0
Intersection Summary												

OPENING YEAR 1B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	12	0	0	119	0	0	90	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.99	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	0	0	0	1805	0	0	1890	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	120		0	722		0	1615	
Reference Time A (s)	0.0	0.0		0.0	12.0		0.0	19.8		0.0	6.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	1615	
Reference Time B (s)	0.0	0.0		8.8	8.8		8.9	15.6		0.0	6.7	
Reference Time (s)	0.0			8.8			15.6			6.7		
Adj Reference Time (s)	8.0			12.8			19.6			10.7		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.8		0.0	7.6		0.0	6.7	
Ref Time Seperate (s)	0.0	0.0		0.8	0.0		0.9	6.7		0.0	0.0	
Reference Time (s)	0.0	0.0		0.8	0.8		7.6	7.6		6.7	6.7	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		11.6	11.6		10.7	10.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	12.8		19.6									
Split Option (s)	8.0		22.2									
Minimum (s)	8.0		19.6		27.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
111: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	0	13	106	0	0	0	90
Future Vol, veh/h	0	0	0	12	0	0	13	106	0	0	0	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	0	0	14	115	0	0	0	98
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				192	241	115	98	0	-	-	-	0
Stage 1				143	143	-	-	-	-	-	-	-
Stage 2				49	98	-	-	-	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				797	660	937	1495	-	0	0	-	-
Stage 1				884	779	-	-	-	0	0	-	-
Stage 2				973	814	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				789	0	937	1495	-	-	-	-	-
Mov Cap-2 Maneuver				789	0	-	-	-	-	-	-	-
Stage 1				875	0	-	-	-	-	-	-	-
Stage 2				973	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				9.6		0.8		0				
HCM LOS				A								
Minor Lane/Major Mvmt		NBL	NBTWBLn1	SBT	SBR							
Capacity (veh/h)		1495	-	789	-	-						
HCM Lane V/C Ratio		0.009	-	0.017	-	-						
HCM Control Delay (s)		7.4	0	9.6	-	-						
HCM Lane LOS		A	A	A	-	-						
HCM 95th %tile Q(veh)		0	-	0.1	-	-						

OPENING YEAR 1B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	9	65	9	20	33
Future Volume (vph)	32	9	65	9	20	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.970		0.983			
Flt Protected	0.963					0.981
Satd. Flow (prot)	1740	0	1831	0	0	1827
Flt Permitted	0.963					0.981
Satd. Flow (perm)	1740	0	1831	0	0	1827
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	10	71	10	22	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	81	0	0	58
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.5%
Analysis Period (min)	15
	ICU Level of Service A

OPENING YEAR 1B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.970		0.983			
Flt Protected	0.963					0.981
Satd. Flow (prot)	1740	0	1831	0	0	1827
Flt Permitted	0.963					0.981
Satd. Flow (perm)	1740	0	1831	0	0	1827
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other

OPENING YEAR 1B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	32	9	65	9	20	33
Future Volume (vph)	32	9	65	9	20	33
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	35	10	71	10	22	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	81	0	0	58
Intersection Summary						

OPENING YEAR 1B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1B

114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	32	9	65	9	20	33
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	41	0	74	0	0	53
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.93	0.85	0.98	0.85	0.95	0.98
Saturated Flow (vph)	1766	0	1865	0	0	1864
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	118		1865		0	272
Reference Time A (s)	41.8		4.8		0.0	23.4
Adj Saturation B (vph)	NA		1865		0	0
Reference Time B (s)	NA		4.8		9.3	11.4
Reference Time (s)			4.8			11.4
Adj Reference Time (s)			8.8			15.4
Split Option						
Ref Time Combined (s)	2.8		4.8		0.0	3.4
Ref Time Seperate (s)	2.2		4.2		1.3	2.1
Reference Time (s)	2.8		4.8		3.4	3.4
Adj Reference Time (s)	8.0		8.8		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.4			
Split Option (s)	8.0		16.8			
Minimum (s)	8.0		15.4		23.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	19.5%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	9	65	9	20	33
Future Vol, veh/h	32	9	65	9	20	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	10	71	10	22	36
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	156	76	0	0	81	0
Stage 1	76	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	835	985	-	-	1517	-
Stage 1	947	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	822	985	-	-	1517	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.5		0		2.8	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	853	1517	-	
HCM Lane V/C Ratio	-	-	0.052	0.014	-	
HCM Control Delay (s)	-	-	9.5	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

OPENING YEAR 1B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.944				
Flt Protected		0.954									0.959	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1786	0
Flt Permitted		0.954									0.959	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1786	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	12	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.6%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.944				
Flt Protected		0.954									0.959	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1786	0
Flt Permitted		0.954									0.959	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1786	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	12	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	14	0
Intersection Summary												

OPENING YEAR 1B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	0	0	0	11	0	0	13	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1820	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	123		0	0		0	1770		0	136	
Reference Time A (s)	0.0	114.9		0.0	0.0		0.0	0.7		0.0	11.5	
Adj Saturation B (vph)	0	0		0	0		0	1770		0	0	
Reference Time B (s)	15.5	15.9		0.0	0.0		0.0	0.7		8.7	8.9	
Reference Time (s)		15.9			0.0			0.7			8.9	
Adj Reference Time (s)		19.9			8.0			8.0			12.9	
Split Option												
Ref Time Combined (s)	0.0	7.9		0.0	0.0		0.0	0.7		0.0	0.9	
Ref Time Seperate (s)	7.5	0.0		0.0	0.0		0.0	0.4		0.7	0.1	
Reference Time (s)	7.9	7.9		0.0	0.0		0.7	0.7		0.9	0.9	
Adj Reference Time (s)	11.9	11.9		0.0	0.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.9		12.9									
Split Option (s)	11.9		16.0									
Minimum (s)	11.9		12.9		24.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	20.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
118: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	11	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	11	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	0	5	0	0	0	0	7	5	12	2	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	36	38	2	-	0	0	12	0	0
Stage 1	26	26	-	-	-	-	-	-	-
Stage 2	10	12	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	977	854	1082	0	-	-	1607	-	0
Stage 1	997	874	-	0	-	-	-	-	0
Stage 2	1013	886	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	970	0	1082	-	-	-	1607	-	-
Mov Cap-2 Maneuver	970	0	-	-	-	-	-	-	-
Stage 1	997	0	-	-	-	-	-	-	-
Stage 2	1006	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0	6.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	974	1607	-
HCM Lane V/C Ratio	-	-	0.132	0.007	-
HCM Control Delay (s)	-	-	9.3	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.967			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	3	4	1	54	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	73	0	0	24	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 16.2%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.967			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	3	4	1	54	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	73	0	0	24	0	0	16	0
Intersection Summary												

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	68	0	0	23	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1827	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	244		0	1830		0	829		0	1839	
Reference Time A (s)	0.0	7.4		0.0	4.5		0.0	3.3		0.0	1.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	9.0		8.1	12.5		9.0	9.5		8.3	9.0	
Reference Time (s)	7.4				4.5		3.3				1.0	
Adj Reference Time (s)	11.4				8.5		8.0				8.0	
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	4.5		0.0	1.5		0.0	1.0	
Ref Time Seperate (s)	0.5	0.2		0.1	3.3		1.0	0.3		0.3	0.6	
Reference Time (s)	1.0	1.0		4.5	4.5		1.5	1.5		1.0	1.0	
Adj Reference Time (s)	8.0	8.0		8.5	8.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.4		8.0									
Split Option (s)	16.5		16.0									
Minimum (s)	11.4		8.0		19.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.2%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	4	1	54	18	16	4	4	4	10	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	7	0	0	94	97	5	92	90	63
Stage 1	-	-	-	-	-	-	23	23	-	65	65	-
Stage 2	-	-	-	-	-	-	71	74	-	27	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1614	-	-	889	793	1078	892	800	1002
Stage 1	-	-	-	-	-	-	995	876	-	946	841	-
Stage 2	-	-	-	-	-	-	939	833	-	990	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1614	-	-	874	787	1078	880	794	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	787	-	880	794	-
Stage 1	-	-	-	-	-	-	989	871	-	940	840	-
Stage 2	-	-	-	-	-	-	925	832	-	975	869	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.9			0.1			9.2			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	886	1528	-	-	1614	-	-	839				
HCM Lane V/C Ratio	0.028	0.006	-	-	0.001	-	-	0.019				
HCM Control Delay (s)	9.2	7.4	0	-	7.2	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.975			0.932			0.972	
Flt Protected		0.978			0.997			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.997			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	10	1	12	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	16	0	0	32	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.975			0.932			0.972	
Flt Protected		0.978			0.997			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.997			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	16	10	1	12	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	16	0	0	32	0	0	19	0
Intersection Summary												

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	44	0	0	15	0	0	29	0	0	18	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1837	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	485		0	1822		0	1701		0	785	
Reference Time A (s)	0.0	10.9		0.0	1.0		0.0	2.0		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.3	10.9		8.1	9.0		8.4	10.0		8.7	9.2	
Reference Time (s)	10.9			1.0			2.0			2.8		
Adj Reference Time (s)	14.9			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	1.0		0.0	2.0		0.0	1.2	
Ref Time Seperate (s)	1.3	1.0		0.1	0.7		0.4	0.6		0.7	0.3	
Reference Time (s)	2.9	2.9		1.0	1.0		2.0	2.0		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.9		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	14.9		8.0		22.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.1%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	16	10	1	12	3	7	9	16	11	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	7%	56%
Vol Thru, %	28%	34%	73%	22%
Vol Right, %	52%	20%	20%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	15	18
LT Vol	6	20	1	10
Through Vol	8	15	11	4
RT Vol	15	9	3	4
Lane Flow Rate	32	48	16	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.053	0.018	0.022
Departure Headway (Hd)	3.791	4.002	3.952	4.047
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	943	895	905	883
Service Time	1.822	2.025	1.98	2.079
HCM Lane V/C Ratio	0.034	0.054	0.018	0.023
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

OPENING YEAR 1B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 22.4%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Intersection Summary												

OPENING YEAR 1B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	92	0	0	5	0	0	68	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1745		0	710		0	451		0	1953	
Reference Time A (s)	0.0	6.3		0.0	0.8		0.0	18.1		0.0	0.9	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.1	14.3		8.2	8.3		11.5	12.6		8.1	9.0	
Reference Time (s)	6.3			0.8			12.6			0.9		
Adj Reference Time (s)	10.3			8.0			16.6			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.3		0.0	0.3		0.0	4.6		0.0	1.0	
Ref Time Seperate (s)	1.1	2.1		0.2	0.1		3.5	0.4		0.1	0.8	
Reference Time (s)	6.3	6.3		0.3	0.3		4.6	4.6		1.0	1.0	
Adj Reference Time (s)	10.3	10.3		8.0	8.0		8.6	8.6		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		16.6									
Split Option (s)	18.3		16.6									
Minimum (s)	10.3		16.6		26.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
126: 3rd Ave SE & 4th St SE

01/15/2025

Intersection

Intersection Delay, s/veh 7.5
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	33	49	3	2	0	57	7	11	2	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.4	7.6	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	74	100	5	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.107	0.006	0.019
Departure Headway (Hd)	4.195	3.838	4.288	4.202
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	928	827	846
Service Time	2.237	1.887	2.353	2.258
HCM Lane V/C Ratio	0.087	0.108	0.006	0.019
HCM Control Delay	7.6	7.4	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0	0.1

OPENING YEAR 1B
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.939			0.933			0.990	
Flt Protected		0.993			0.976			0.989			0.960	
Satd. Flow (prot)	0	1729	0	0	1707	0	0	1719	0	0	1770	0
Flt Permitted		0.993			0.976			0.989			0.960	
Satd. Flow (perm)	0	1729	0	0	1707	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	27	35	50	5	45	26	32	57	75	9	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	100	0	0	115	0	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	29.9%											
Analysis Period (min)	15											
ICU Level of Service A												

OPENING YEAR 1B
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.939			0.933			0.990	
Flt Protected		0.993			0.976			0.989			0.960	
Satd. Flow (prot)	0	1729	0	0	1707	0	0	1719	0	0	1770	0
Flt Permitted		0.993			0.976			0.989			0.960	
Satd. Flow (perm)	0	1729	0	0	1707	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1B

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	27	35	50	5	45	26	32	57	75	9	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	100	0	0	115	0	0	91	0
Intersection Summary												

OPENING YEAR 1B

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1B

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	67	0	0	92	0	0	105	0	0	83	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1751	0	0	1729	0	0	1739	0	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1715	0		673	0		1838	0		617	
Reference Time A (s)	0.0	4.7	0.0		16.4	0.0		6.9	0.0		16.1	
Adj Saturation B (vph)	0	0	0		0	0		0	0		0	
Reference Time B (s)	8.7	12.6	11.1		14.4	9.6		15.2	12.6		13.5	
Reference Time (s)	4.7				14.4			6.9			13.5	
Adj Reference Time (s)	8.7				18.4			10.9			17.5	
Split Option												
Ref Time Combined (s)	0.0	4.6	0.0		6.4	0.0		7.2	0.0		5.5	
Ref Time Seperate (s)	0.7	1.7	3.1		0.4	1.6		2.0	4.6		0.5	
Reference Time (s)	4.6	4.6	6.4		6.4	7.2		7.2	5.5		5.5	
Adj Reference Time (s)	8.6	8.6	10.4		10.4	11.2		11.2	9.5		9.5	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	18.4		17.5									
Split Option (s)	19.0		20.8									
Minimum (s)	18.4		17.5		35.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.9%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1B
145: 1st Ave E

01/15/2025

Intersection				
Intersection Delay, s/veh	3.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	73	100	115	91
Demand Flow Rate, veh/h	75	102	118	92
Vehicles Circulating, veh/h	136	71	115	83
Vehicles Exiting, veh/h	39	162	96	90
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.6	3.5	3.8	3.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	75	102	118	92
Cap Entry Lane, veh/h	1201	1283	1227	1268
Entry HV Adj Factor	0.979	0.979	0.978	0.987
Flow Entry, veh/h	73	100	115	91
Cap Entry, veh/h	1176	1257	1200	1252
V/C Ratio	0.062	0.079	0.096	0.073
Control Delay, s/veh	3.6	3.5	3.8	3.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

OPENING YEAR 1B

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1815		872			142
Travel Time (s)	41.3		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	224	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	224	0	11	0	0	51
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.6%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1B

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1815		872			142
Travel Time (s)	41.3		19.8			3.2
Intersection Summary						
Area Type:	Other					

OPENING YEAR 1B

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	224	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	224	0	11	0	0	51
Intersection Summary						

OPENING YEAR 1B

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1B

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	206	10	0	28	19
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	206	0	10	0	0	47
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	229.6		0.6		0.0	31.1
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.6		9.9	11.1
Reference Time (s)			0.6			11.1
Adj Reference Time (s)			8.0			15.1
Split Option						
Ref Time Combined (s)	15.3		0.6		0.0	3.1
Ref Time Seperate (s)	0.0		0.6		1.9	1.2
Reference Time (s)	15.3		0.6		3.1	3.1
Adj Reference Time (s)	19.3		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.1			
Split Option (s)	19.3		16.0			
Minimum (s)	19.3		15.1		34.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.6%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1B
167: 3rd St SW

01/15/2025

Intersection						
Int Delay, s/veh	8.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	206	10	0	28	19
Future Vol, veh/h	0	206	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	224	11	0	30	21
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	92	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	908	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	891	1070	-	-	1608	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		4.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 1070	1608	-		
HCM Lane V/C Ratio	-	- 0.209	0.019	-		
HCM Control Delay (s)	-	- 9.3	7.3	0		
HCM Lane LOS	-	- A	A	A		
HCM 95th %tile Q(veh)	-	- 0.8	0.1	-		

Network Totals

Number of Intersections	35
Total Delay (hr)	13
Stops (#)	5158
Average Speed (mph)	27
Total Travel Time (hr)	95
Distance Traveled (mi)	2560
Fuel Consumed (gal)	142
Fuel Economy (mpg)	18.0
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.5

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	159	259	254	309	981
Control Delay / Veh (s/v)	7	8	10	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	8	10	7	8
Total Delay (hr)	0	1	1	1	2
Stops / Veh	0.35	0.38	0.54	0.43	0.43
Stops (#)	56	98	137	133	424
Average Speed (mph)	23	16	22	24	22
Total Travel Time (hr)	1	1	3	3	8
Distance Traveled (mi)	32	19	56	80	186
Fuel Consumed (gal)	2	2	4	4	12
Fuel Economy (mpg)	17.3	11.0	15.7	17.9	16.1
CO Emissions (kg)	0.13	0.12	0.25	0.31	0.81
NOx Emissions (kg)	0.02	0.02	0.05	0.06	0.16
VOC Emissions (kg)	0.03	0.03	0.06	0.07	0.19
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	98	215	317	630
Control Delay / Veh (s/v)	11	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	1	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.26	0.00	0.24
Stops (#)	98	55	0	153
Average Speed (mph)	14	25	30	27
Total Travel Time (hr)	1	0	2	3
Distance Traveled (mi)	8	13	70	90
Fuel Consumed (gal)	1	1	3	5
Fuel Economy (mpg)	7.2	NA	24.3	18.7
CO Emissions (kg)	0.08	0.06	0.20	0.34
NOx Emissions (kg)	0.01	0.01	0.04	0.07
VOC Emissions (kg)	0.02	0.01	0.05	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	110	110
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	0	0
Distance Traveled (mi)	8	8
Fuel Consumed (gal)	0	0
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.02	0.02
NOx Emissions (kg)	0.00	0.00
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	113	60	309	267	749
Control Delay / Veh (s/v)	4	7	10	11	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	7	10	11	9
Total Delay (hr)	0	0	1	1	2
Stops / Veh	0.25	0.52	0.58	0.67	0.56
Stops (#)	28	31	180	178	417
Average Speed (mph)	25	26	23	19	23
Total Travel Time (hr)	1	1	4	2	8
Distance Traveled (mi)	20	23	87	46	177
Fuel Consumed (gal)	1	1	5	4	11
Fuel Economy (mpg)	18.6	19.1	16.7	13.2	16.1
CO Emissions (kg)	0.08	0.09	0.36	0.24	0.77
NOx Emissions (kg)	0.01	0.02	0.07	0.05	0.15
VOC Emissions (kg)	0.02	0.02	0.08	0.06	0.18
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	93	17	74	184
Control Delay / Veh (s/v)	0	9	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	9	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.05	0.11
Stops (#)	0	17	4	21
Average Speed (mph)	30	22	30	28
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	12	4	13	28
Fuel Consumed (gal)	0	0	1	1
Fuel Economy (mpg)	NA	NA	NA	21.4
CO Emissions (kg)	0.03	0.02	0.04	0.09
NOx Emissions (kg)	0.01	0.00	0.01	0.02
VOC Emissions (kg)	0.01	0.00	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	213	63	224	500
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.13
Stops (#)	0	63	0	63
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	1	0	1	3
Distance Traveled (mi)	37	13	32	82
Fuel Consumed (gal)	2	1	1	4
Fuel Economy (mpg)	24.3	NA	24.3	22.0
CO Emissions (kg)	0.11	0.06	0.09	0.26
NOx Emissions (kg)	0.02	0.01	0.02	0.05
VOC Emissions (kg)	0.02	0.01	0.02	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	62	3	302	269	636
Control Delay / Veh (s/v)	22	20	2	0	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	22	20	2	0	3
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.48	0.04	0.35
Stops (#)	62	3	146	11	222
Average Speed (mph)	27	19	20	29	26
Total Travel Time (hr)	2	0	1	1	3
Distance Traveled (mi)	43	1	11	26	81
Fuel Consumed (gal)	2	0	1	1	5
Fuel Economy (mpg)	18.1	NA	8.0	22.7	16.2
CO Emissions (kg)	0.17	0.00	0.10	0.08	0.35
NOx Emissions (kg)	0.03	0.00	0.02	0.02	0.07
VOC Emissions (kg)	0.04	0.00	0.02	0.02	0.08
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	66	163	196	293	718
Control Delay / Veh (s/v)	17	14	0	2	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	17	14	0	2	6
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	0.00	0.41	0.48
Stops (#)	66	163	0	119	348
Average Speed (mph)	16	22	30	25	23
Total Travel Time (hr)	1	2	1	1	5
Distance Traveled (mi)	11	54	28	28	121
Fuel Consumed (gal)	1	4	1	2	8
Fuel Economy (mpg)	10.6	15.0	24.3	14.5	15.7
CO Emissions (kg)	0.07	0.25	0.08	0.13	0.54
NOx Emissions (kg)	0.01	0.05	0.02	0.03	0.11
VOC Emissions (kg)	0.02	0.06	0.02	0.03	0.13
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	136	140	25	301
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.21	1.00	0.18
Stops (#)	0	29	25	54
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	2
Distance Traveled (mi)	45	5	10	59
Fuel Consumed (gal)	2	0	1	3
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.13	0.03	0.04	0.20
NOx Emissions (kg)	0.03	0.01	0.01	0.04
VOC Emissions (kg)	0.03	0.01	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	45	127	8	68	248
Control Delay / Veh (s/v)	11	10	0	0	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	10	0	0	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.00	0.07	0.71
Stops (#)	45	127	0	5	177
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	1	0	1	2
Distance Traveled (mi)	4	25	0	18	48
Fuel Consumed (gal)	1	2	0	1	3
Fuel Economy (mpg)	NA	12.6	NA	NA	14.5
CO Emissions (kg)	0.04	0.14	0.00	0.05	0.23
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	100	184	38	51	373
Control Delay / Veh (s/v)	8	9	8	8	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	9	8	8	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	100	184	38	51	373
Average Speed (mph)	27	21	24	24	25
Total Travel Time (hr)	2	2	0	1	5
Distance Traveled (mi)	62	33	10	14	119
Fuel Consumed (gal)	3	3	1	1	8
Fuel Economy (mpg)	19.0	12.2	NA	NA	15.7
CO Emissions (kg)	0.23	0.19	0.05	0.07	0.53
NOx Emissions (kg)	0.04	0.04	0.01	0.01	0.10
VOC Emissions (kg)	0.05	0.04	0.01	0.02	0.12
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	99	366	369	834
Control Delay / Veh (s/v)	15	3	0	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	15	3	0	3
Total Delay (hr)	0	0	0	1
Stops / Veh	1.00	0.53	0.00	0.35
Stops (#)	99	195	0	294
Average Speed (mph)	18	28	30	27
Total Travel Time (hr)	1	3	3	8
Distance Traveled (mi)	18	94	104	216
Fuel Consumed (gal)	2	5	4	11
Fuel Economy (mpg)	11.2	18.3	24.3	19.6
CO Emissions (kg)	0.11	0.36	0.30	0.77
NOx Emissions (kg)	0.02	0.07	0.06	0.15
VOC Emissions (kg)	0.03	0.08	0.07	0.18
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	99	52	19	256
Control Delay / Veh (s/v)	1	2	10	10	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	10	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.37	1.00	1.00	0.47
Stops (#)	12	37	52	19	120
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	1	1	1	0	3
Distance Traveled (mi)	38	18	14	1	70
Fuel Consumed (gal)	2	1	1	0	4
Fuel Economy (mpg)	23.1	NA	NA	NA	18.8
CO Emissions (kg)	0.11	0.07	0.07	0.01	0.26
NOx Emissions (kg)	0.02	0.01	0.01	0.00	0.05
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	20	55	34	7	116
Control Delay / Veh (s/v)	0	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.35
Stops (#)	0	0	34	7	41
Average Speed (mph)	30	30	9	13	21
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	2	3	1	0	7
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.02	0.00	0.04
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	54	86	40	180
Control Delay / Veh (s/v)	0	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.24
Stops (#)	3	0	40	43
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	3	11	5	19
Fuel Consumed (gal)	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	17.3
CO Emissions (kg)	0.01	0.03	0.03	0.08
NOx Emissions (kg)	0.00	0.01	0.01	0.01
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	41	29	13	83
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.38	0.90
Stops (#)	41	29	5	75
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	5	4	0	9
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.03	0.00	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	27	17	45	175
Control Delay / Veh (s/v)	9	8	8	6	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	8	8	6	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.58	0.67	0.71	0.38	0.55
Stops (#)	50	18	12	17	97
Average Speed (mph)	22	19	10	23	22
Total Travel Time (hr)	1	0	0	0	1
Distance Traveled (mi)	19	3	1	7	30
Fuel Consumed (gal)	1	0	0	0	2
Fuel Economy (mpg)	15.7	NA	NA	NA	14.6
CO Emissions (kg)	0.09	0.02	0.01	0.03	0.14
NOx Emissions (kg)	0.02	0.00	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.00	0.00	0.01	0.03
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	96	96
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	3	3
Distance Traveled (mi)	158	158
Fuel Consumed (gal)	5	5
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.38	0.38
NOx Emissions (kg)	0.07	0.07
VOC Emissions (kg)	0.09	0.09
Unserved Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	30	55	42	71	198
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.37	0.35	1.00	1.00	0.72
Stops (#)	11	19	42	71	143
Average Speed (mph)	33	34	20	17	29
Total Travel Time (hr)	0	1	0	0	2
Distance Traveled (mi)	11	38	6	8	64
Fuel Consumed (gal)	1	2	1	1	4
Fuel Economy (mpg)	NA	23.6	NA	NA	17.8
CO Emissions (kg)	0.04	0.11	0.04	0.06	0.25
NOx Emissions (kg)	0.01	0.02	0.01	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	43	69	32	144
Control Delay / Veh (s/v)	2	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.33	0.00	1.00	0.32
Stops (#)	14	0	32	46
Average Speed (mph)	32	35	18	30
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	8	14	4	26
Fuel Consumed (gal)	0	1	0	1
Fuel Economy (mpg)	NA	NA	NA	19.1
CO Emissions (kg)	0.03	0.04	0.03	0.09
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	83	107	10	16	216
Control Delay / Veh (s/v)	0	1	10	9	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	9	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.05	0.16	1.00	1.00	0.22
Stops (#)	4	17	10	16	47
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	21	16	3	2	43
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	20.4
CO Emissions (kg)	0.06	0.05	0.01	0.02	0.15
NOx Emissions (kg)	0.01	0.01	0.00	0.00	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.00	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	23	49	33	33	138
Control Delay / Veh (s/v)	2	0	9	9	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.02	1.00	1.00	0.54
Stops (#)	8	1	33	33	75
Average Speed (mph)	32	35	20	18	28
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	5	18	5	4	32
Fuel Consumed (gal)	0	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.6
CO Emissions (kg)	0.02	0.05	0.03	0.03	0.13
NOx Emissions (kg)	0.00	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 7th St SW/Beltline Rd & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	137	80	8	87	312
Control Delay / Veh (s/v)	0	0	1	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	1	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	137	80	8	87	312
Average Speed (mph)	30	30	30	35	31
Total Travel Time (hr)	2	1	0	0	3
Distance Traveled (mi)	65	21	5	15	107
Fuel Consumed (gal)	3	1	0	1	6
Fuel Economy (mpg)	19.0	16.0	NA	12.4	17.1
CO Emissions (kg)	0.24	0.09	0.02	0.09	0.44
NOx Emissions (kg)	0.05	0.02	0.00	0.02	0.09
VOC Emissions (kg)	0.06	0.02	0.00	0.02	0.10
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	11	98	114	35	258
Control Delay / Veh (s/v)	9	10	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	10	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.37	0.50
Stops (#)	11	98	6	13	128
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	1	2	0	4
Distance Traveled (mi)	3	34	65	4	106
Fuel Consumed (gal)	0	2	3	0	5
Fuel Economy (mpg)	NA	15.9	23.9	NA	20.0
CO Emissions (kg)	0.01	0.15	0.19	0.02	0.37
NOx Emissions (kg)	0.00	0.03	0.04	0.00	0.07
VOC Emissions (kg)	0.00	0.03	0.04	0.00	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	144	94	37	275
Control Delay / Veh (s/v)	10	2	0	6
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	2	0	6
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.38	0.00	0.65
Stops (#)	144	36	0	180
Average Speed (mph)	22	19	30	24
Total Travel Time (hr)	1	0	1	2
Distance Traveled (mi)	32	3	21	55
Fuel Consumed (gal)	2	0	1	4
Fuel Economy (mpg)	13.3	NA	NA	15.4
CO Emissions (kg)	0.17	0.02	0.06	0.25
NOx Emissions (kg)	0.03	0.00	0.01	0.05
VOC Emissions (kg)	0.04	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	91	78	58	2	229
Control Delay / Veh (s/v)	0	2	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.35	1.00	1.00	0.38
Stops (#)	0	27	58	2	87
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	14	17	7	0	38
Fuel Consumed (gal)	1	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.4
CO Emissions (kg)	0.04	0.06	0.05	0.00	0.15
NOx Emissions (kg)	0.01	0.01	0.01	0.00	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	12	94	3	98	207
Control Delay / Veh (s/v)	1	0	8	10	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	0	8	10	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.25	0.00	1.00	1.00	0.50
Stops (#)	3	0	3	98	104
Average Speed (mph)	29	30	23	27	28
Total Travel Time (hr)	0	1	0	2	3
Distance Traveled (mi)	6	21	1	65	92
Fuel Consumed (gal)	0	1	0	3	5
Fuel Economy (mpg)	NA	NA	NA	19.1	20.2
CO Emissions (kg)	0.02	0.06	0.00	0.24	0.32
NOx Emissions (kg)	0.00	0.01	0.00	0.05	0.06
VOC Emissions (kg)	0.00	0.01	0.00	0.05	0.07
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	12	119	90	221
Control Delay / Veh (s/v)	10	1	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.16	0.00	0.14
Stops (#)	12	19	0	31
Average Speed (mph)	51	29	30	35
Total Travel Time (hr)	0	1	1	2
Distance Traveled (mi)	22	18	23	64
Fuel Consumed (gal)	1	1	1	3
Fuel Economy (mpg)	NA	NA	NA	22.5
CO Emissions (kg)	0.07	0.06	0.07	0.20
NOx Emissions (kg)	0.01	0.01	0.01	0.04
VOC Emissions (kg)	0.02	0.01	0.02	0.05
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	41	75	53	169
Control Delay / Veh (s/v)	9	0	2	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	0	2	3
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.36	0.36
Stops (#)	41	0	19	60
Average Speed (mph)	26	30	29	28
Total Travel Time (hr)	1	1	1	3
Distance Traveled (mi)	21	19	32	72
Fuel Consumed (gal)	1	1	1	3
Fuel Economy (mpg)	17.9	NA	22.2	21.2
CO Emissions (kg)	0.08	0.06	0.10	0.24
NOx Emissions (kg)	0.02	0.01	0.02	0.05
VOC Emissions (kg)	0.02	0.01	0.02	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	118	11	13	142
Control Delay / Veh (s/v)	9	0	1	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	0	1	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.15	0.85
Stops (#)	118	0	2	120
Average Speed (mph)	14	30	28	16
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	8	2	2	11
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	6.4	NA	NA	8.3
CO Emissions (kg)	0.08	0.00	0.01	0.09
NOx Emissions (kg)	0.02	0.00	0.00	0.02
VOC Emissions (kg)	0.02	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	15	67	22	15	119
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.40	0.01	1.00	1.00	0.37
Stops (#)	6	1	22	15	44
Average Speed (mph)	20	30	13	13	23
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	0	8	1	1	11
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.02	0.02	0.01	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	44	15	29	17	105
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	44	15	29	17	105
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	6	2	2	1	10
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.6
CO Emissions (kg)	0.04	0.01	0.02	0.01	0.08
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	92	5	69	15	181
Control Delay / Veh (s/v)	7	7	8	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	8	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	92	5	69	15	181
Average Speed (mph)	26	15	26	15	26
Total Travel Time (hr)	1	0	1	0	2
Distance Traveled (mi)	32	0	30	1	64
Fuel Consumed (gal)	2	0	2	0	4
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.14	0.00	0.12	0.01	0.27
NOx Emissions (kg)	0.03	0.00	0.02	0.00	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	67	92	106	84	349
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	67	92	106	84	349
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	1	2	1	4
Distance Traveled (mi)	2	44	64	15	125
Fuel Consumed (gal)	0	2	3	1	7
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.7
CO Emissions (kg)	0.03	0.16	0.22	0.08	0.49
NOx Emissions (kg)	0.01	0.03	0.04	0.01	0.10
VOC Emissions (kg)	0.01	0.04	0.05	0.02	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	206	10	47	263
Control Delay / Veh (s/v)	9	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	0	2	8
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.00	0.38	0.85
Stops (#)	206	0	18	224
Average Speed (mph)	27	30	19	27
Total Travel Time (hr)	5	0	0	5
Distance Traveled (mi)	128	2	1	131
Fuel Consumed (gal)	7	0	0	7
Fuel Economy (mpg)	18.8	NA	NA	18.6
CO Emissions (kg)	0.47	0.00	0.01	0.49
NOx Emissions (kg)	0.09	0.00	0.00	0.10
VOC Emissions (kg)	0.11	0.00	0.00	0.11
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	13
Stops / Veh	0.48
Stops (#)	5158
Average Speed (mph)	27
Total Travel Time (hr)	95
Distance Traveled (mi)	2560
Fuel Consumed (gal)	142
Fuel Economy (mpg)	18.0
CO Emissions (kg)	9.95
NOx Emissions (kg)	1.94
VOC Emissions (kg)	2.31
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.5

OPENING YEAR 1C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.942			0.953					0.479		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1779	0	892	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			54			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	64	86	34	99	149	0	252	108	80	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	360	0	80	331	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	
v/c Ratio		0.25			0.39			0.45		0.21	0.22	

OPENING YEAR 1C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		6.8			7.7			10.7		10.8	7.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		6.8			7.7			10.7		10.8	7.0	
LOS		A			A			B		B	A	
Approach Delay		6.8			7.7			10.7			7.8	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.5

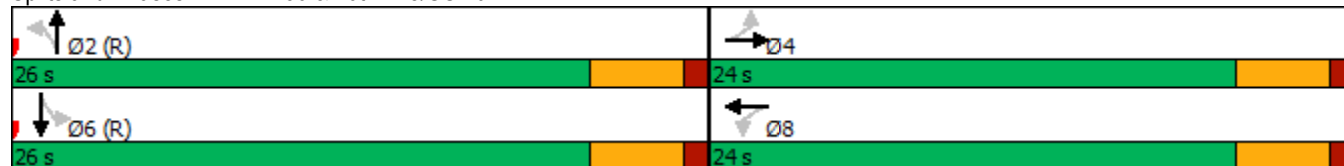
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1C
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.942			0.953					0.479		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1779	0	892	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			54			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

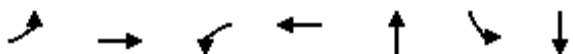
OPENING YEAR 1C
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	64	86	34	99	149	0	252	108	80	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	360	0	80	331	0
Intersection Summary												

OPENING YEAR 1C
1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	232	74	227
Future Volume (vph)	21	59	31	91	232	74	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.25		0.39	0.45	0.21	0.22
Control Delay		6.8		7.7	10.7	10.8	7.0
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		6.8		7.7	10.7	10.8	7.0
LOS		A		A	B	B	A
Approach Delay		6.8		7.7	10.7		7.8
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.5

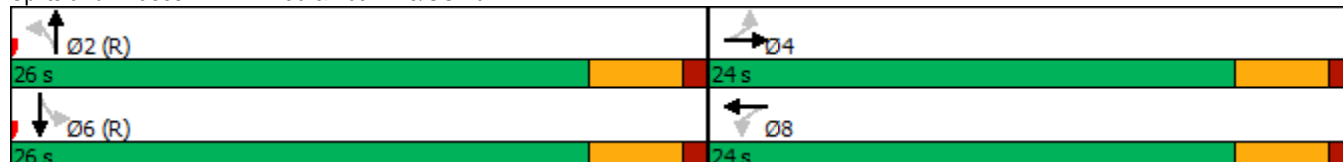
Intersection LOS: A

Intersection Capacity Utilization 53.0%

ICU Level of Service A

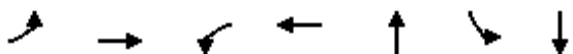
Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1C
1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed

OPENING YEAR 1C
1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	173	282	360	80	331
v/c Ratio	0.25	0.39	0.45	0.21	0.22
Control Delay	6.8	7.7	10.7	10.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.7	10.7	10.8	7.0
Queue Length 50th (ft)	16	28	58	14	22
Queue Length 95th (ft)	47	71	114	37	42
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	690	723	795	383	1512
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.39	0.45	0.21	0.22
Intersection Summary					

OPENING YEAR 1C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

1: IA 136 & 16th Ave/US 20

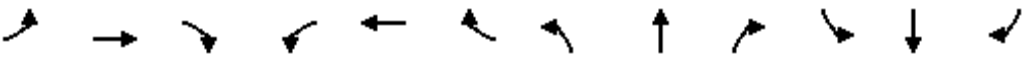
01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	159	0	0	259	0	0	331	0	74	304	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.96	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1815	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	21.9	0.0	4.9	10.5	0.0
Adj Reference Time (s)	0.0			0.0			9.5	26.4	0.0	9.5	15.0	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1815		120	1740	
Reference Time A (s)	0.0	15.0		0.0	23.2		0.0	21.9		73.8	10.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	15.0			23.2			21.9			73.8		
Adj Reference Time (s)	19.5			27.7			26.4			78.3		
Split Option												
Ref Time Combined (s)	0.0	10.9		0.0	17.9		0.0	21.9		4.9	10.5	
Ref Time Seperate (s)	1.4	4.1		2.1	6.3		0.0	15.3		4.9	7.8	
Reference Time (s)	10.9	10.9		17.9	17.9		21.9	21.9		10.5	10.5	
Adj Reference Time (s)	15.4	15.4		22.4	22.4		26.4	26.4		15.0	15.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		35.9									
Permitted Option (s)	27.7		78.3									
Split Option (s)	37.8		41.4									
Minimum (s)	27.7		35.9		63.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	53.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	252	108	80	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	283	321	120	266	342	144	534	229	435	1127	374
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	105	726	822	101	682	878	1049	1242	532	1022	2621	869
Grp Volume(v), veh/h	173	0	0	282	0	0	0	0	360	80	165	166
Grp Sat Flow(s),veh/h/ln	1654	0	0	1661	0	0	1049	0	1775	1022	1777	1714
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	3.0	2.9	3.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	6.0	0.0	0.0	0.0	0.0	7.3	10.3	2.9	3.0
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.30	1.00		0.51
Lane Grp Cap(c), veh/h	727	0	0	728	0	0	144	0	763	435	764	737
V/C Ratio(X)	0.24	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.47	0.18	0.22	0.22
Avail Cap(c_a), veh/h	727	0	0	728	0	0	144	0	763	435	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.1	0.0	0.0	0.0	0.0	10.2	13.9	9.0	9.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.1	0.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	2.7	0.7	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	12.3	14.8	9.6	9.7
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		173			282			360			411	
Approach Delay, s/veh		11.1			12.7			12.3			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		9.3		5.4		12.3		8.0				
Green Ext Time (p_c), s		1.8		0.8		1.6		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	252	108	80	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	283	321	120	266	342	144	534	229	435	1127	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	12.3	14.8	9.6	9.7
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h	173			282			360			411		
Approach Delay, s/veh	11.1			12.7			12.3			10.7		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.2			5.5		
Max Q Clear (g_c+I1), s	9.3			5.4			12.3			8.0		
Green Ext Time (g_e), s	1.8			0.8			1.6			1.3		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1049			105			1022			101		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1242			726			2621			682		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	532			822			869			878		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	173	0	80	0	282
Grp Sat Flow (s), veh/h/ln	0	1049	0	1654	0	1022	0	1661
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	10.3	0.0	6.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1049	0	1150	0	1022	0	1257
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.5	0.0	14.2	0.0	16.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	727	0	435	0	728
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.18	0.00	0.39
Avail Cap (c_a), veh/h	0	144	0	727	0	435	0	728
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.3	0.0	13.9	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.9	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.1	0.0	14.8	0.0	12.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.6	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.2	0.0	0.7	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.15	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	165	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	360	0	0	0	166	0	0
Grp Sat Flow (s), veh/h/ln	0	1775	0	0	0	1714	0	0
Q Serve Time (g_s), s	0.0	7.3	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	0.0	0.0	3.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	763	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	763	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.3	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.87	1.96	2.29	2.32
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	173	282	360	411
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.65	2.78	2.52	2.35
Bicycle LOS	C	C	C	B

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	0	0	0	234	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.8%				ICU Level of Service A							
Analysis Period (min)	15											

OPENING YEAR 1C

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	115	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	0	0	0	234	0	0	345	0
Intersection Summary												

OPENING YEAR 1C

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

2: IA 136

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	174	0	0	0	0	0	215	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1734	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)			0.0		0.0				0.0		0.0	
Adj Reference Time (s)			0.0		0.0				0.0		0.0	
Permitted Option												
Adj Saturation A (vph)	0	1280		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	16.3		0.0	0.0		0.0	46.3		0.0	11.7	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	15.0	20.0		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		16.3			0.0			46.3			11.7	
Adj Reference Time (s)		20.3			8.0			50.3			15.7	
Split Option												
Ref Time Combined (s)	0.0	12.0		0.0	0.0		0.0	7.2		0.0	11.7	
Ref Time Seperate (s)	7.0	0.0		0.0	0.0		3.1	5.6		0.0	3.9	
Reference Time (s)	12.0	12.0		0.0	0.0		7.2	7.2		11.7	11.7	
Adj Reference Time (s)	16.0	16.0		0.0	0.0		11.2	11.2		15.7	15.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.3		50.3									
Split Option (s)	16.0		26.9									
Minimum (s)	16.0		26.9		43.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	35.8%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C

2: IA 136

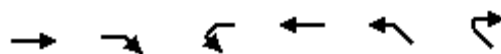
01/15/2025

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	115	0	74	0	0	0	50	184	0	0	116	229
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	423	515	173	342	629	92	345	0	0	184	0	0
Stage 1	231	231	-	284	284	-	-	-	-	-	-	-
Stage 2	192	284	-	58	345	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	515	462	840	588	398	947	1211	-	-	1388	-	-
Stage 1	751	712	-	699	675	-	-	-	-	-	-	-
Stage 2	791	675	-	947	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	497	441	840	517	380	947	1211	-	-	1388	-	-
Mov Cap-2 Maneuver	497	441	-	517	380	-	-	-	-	-	-	-
Stage 1	716	712	-	667	644	-	-	-	-	-	-	-
Stage 2	755	644	-	864	635	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.9		0		1.8		0					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1211	-	-	591	-	1388	-	-				
HCM Lane V/C Ratio	0.041	-	-	0.32	-	-	-	-				
HCM Control Delay (s)	8.1	0.1	-	13.9	0	0	-	-				
HCM Lane LOS	A	A	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	1.4	-	0	-	-				

OPENING YEAR 1C

10: US 20

01/15/2025

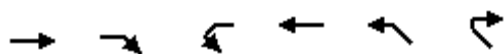


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	239	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	17.0%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1C

10: US 20

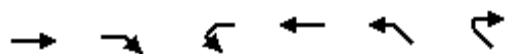
01/15/2025



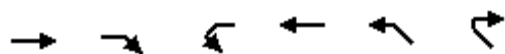
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	239	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	239	0	0	0	0
Intersection Summary						

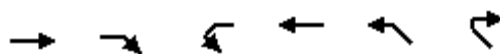


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1C

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Volume (vph)	0	220	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	220	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	16.3	0.0	0.0		0.0
Adj Reference Time (s)	0.0	20.3	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0		0.0	
Right Turns	EBR					
Adj Reference Time (s)	20.3					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	20.3					
Intersection Summary						
Intersection Capacity Utilization		17.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.955			0.948		0.558			0.523		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1039	1824	0	974	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		22			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	5	95	11	39	15	91	275	46	3	287	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	321	0	3	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	
v/c Ratio		0.18			0.07	0.02	0.22	0.43		0.01	0.39	

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.3			8.9	2.0	10.7	11.3		8.3	11.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			8.9	2.0	10.7	11.3		8.3	11.5	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.3			11.2			11.5	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 10.1

Intersection LOS: B

Intersection Capacity Utilization 44.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.896				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.955			0.948		0.558			0.523		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1039	1824	0	974	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		22			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

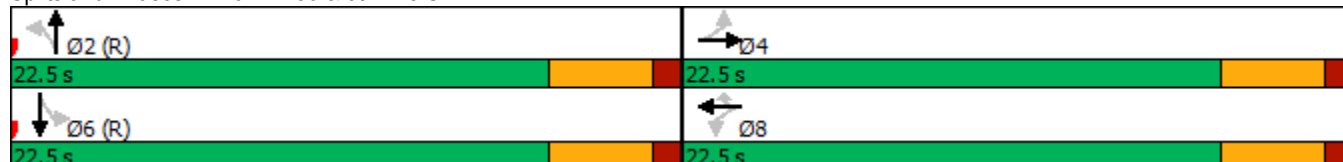
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	5	95	11	39	15	91	275	46	3	287	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	321	0	3	292	0
Intersection Summary												

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

									
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	21	5	10	36	14	84	253	3	264
Future Volume (vph)	21	5	10	36	14	84	253	3	264
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.18		0.07	0.02	0.22	0.43	0.01	0.39
Control Delay		4.3		8.9	2.0	10.7	11.3	8.3	11.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		8.9	2.0	10.7	11.3	8.3	11.5
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.3			11.2		11.5
Approach LOS		A		A			B		B
Intersection Summary									
Cycle Length: 45									
Actuated Cycle Length: 45									
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green									
Natural Cycle: 45									
Control Type: Pretimed									
Maximum v/c Ratio: 0.43									
Intersection Signal Delay: 10.1					Intersection LOS: B				
Intersection Capacity Utilization 44.7%					ICU Level of Service A				
Analysis Period (min) 15									

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	123	50	15	91	321	3	292
v/c Ratio	0.18	0.07	0.02	0.22	0.43	0.01	0.39
Control Delay	4.3	8.9	2.0	10.7	11.3	8.3	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	8.9	2.0	10.7	11.3	8.3	11.5
Queue Length 50th (ft)	4	7	0	15	52	1	50
Queue Length 95th (ft)	26	m22	m4	38	103	4	97
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	694	706	654	415	742	389	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.07	0.02	0.22	0.43	0.01	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	113	0	0	46	14	84	295	0	3	269	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1859	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.0			5.6			19.0		
Adj Reference Time (s)	0.0			9.5			10.1			23.5		
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1859	120	1895	0	3	269	0
Reference Time A (s)	0.0	31.1	0.0	4.2	83.8	19.0	3.0	17.0	0.0	0.2	17.0	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	1805	1895	0
Reference Time B (s)	9.4	16.1	8.7	10.9	NA	NA	NA	NA	0	1805	1895	0
Reference Time (s)	16.1			4.2			83.8			17.0		
Adj Reference Time (s)	20.6			9.5			88.3			21.5		
Split Option												
Ref Time Combined (s)	0.0	8.1	0.0	2.9	5.6	19.0	0.2	17.0	0.0	0.2	17.0	0.0
Ref Time Seperate (s)	1.4	0.4	0.7	2.3	5.6	16.3	0.2	16.7	0.0	0.2	16.7	0.0
Reference Time (s)	8.1	8.1	2.9	2.9	19.0	19.0	17.0	17.0	0.0	0.2	17.0	0.0
Adj Reference Time (s)	12.6	12.6	9.5	9.5	23.5	23.5	21.5	21.5	0.0	0.2	17.0	0.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		33.0									
Permitted Option (s)	20.6		88.3									
Split Option (s)	22.1		45.1									
Minimum (s)	20.6		33.0		53.7							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	23.5											
Oncoming Left Ref Time (s)	12.6											
Combined (s)	45.7											
Intersection Summary												
Intersection Capacity Utilization			44.7%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	275	46	3	287	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	76	489	195	608	634	474	625	105	448	733	13
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	171	190	1224	243	1519	1585	1087	1562	261	1059	1833	32
Grp Volume(v), veh/h	123	0	0	50	0	15	91	0	321	3	0	292
Grp Sat Flow(s),veh/h/ln	1584	0	0	1762	0	1585	1087	0	1823	1059	0	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	2.9	0.0	5.8	0.1	0.0	5.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.7	0.0	0.3	7.9	0.0	5.8	5.9	0.0	5.0
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.14	1.00		0.02
Lane Grp Cap(c), veh/h	729	0	0	803	0	634	474	0	729	448	0	746
V/C Ratio(X)	0.17	0.00	0.00	0.06	0.00	0.02	0.19	0.00	0.44	0.01	0.00	0.39
Avail Cap(c_a), veh/h	729	0	0	803	0	634	474	0	729	448	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	8.3	0.0	8.2	12.4	0.0	9.8	12.0	0.0	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.1	0.9	0.0	1.9	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.1	0.7	0.0	2.2	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.3	0.0	11.8	12.0	0.0	11.1
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		123			65			412			295	
Approach Delay, s/veh		9.3			8.4			12.1			11.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.9		4.2		7.9		2.7				
Green Ext Time (p_c), s		1.4		0.5		1.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.1								
HCM 6th LOS				B								

OPENING YEAR 1C
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	275	46	3	287	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	163	76	489	195	608	634	474	625	105	448	733	13
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.3	0.0	11.8	12.0	0.0	11.1
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	123			65			412			295		
Approach Delay, s/veh	9.3			8.4			12.1			11.2		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.1			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	9.9			4.2			7.9			2.7		
Green Ext Time (g_e), s	1.4			0.5			1.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1087			171			1059			243		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1562			190			1833			1519		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	261			1224			32			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	123	0	3	0	50
Grp Sat Flow (s), veh/h/ln	0	1087	0	1584	0	1059	0	1762
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	2.2	0.0	5.9	0.0	0.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1087	0	1371	0	1059	0	1315
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	13.0	0.0	17.3	0.0	12.2	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.7
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	474	0	729	0	448	0	803
V/C Ratio (X)	0.00	0.19	0.00	0.17	0.00	0.01	0.00	0.06
Avail Cap (c_a), veh/h	0	474	0	729	0	448	0	803
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.4	0.0	8.8	0.0	12.0	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.5	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	9.3	0.0	12.0	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.02	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	321	0	0	0	292	0	15
Grp Sat Flow (s), veh/h/ln	0	1823	0	0	0	1865	0	1585
Q Serve Time (g_s), s	0.0	5.8	0.0	0.0	0.0	5.0	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.0	0.0	5.0	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	729	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.44	0.00	0.00	0.00	0.39	0.00	0.02
Avail Cap (c_a), veh/h	0	729	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	9.6	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.0	1.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.8	0.0	0.0	0.0	11.1	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.0	0.0	1.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	1.9	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.06	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.82	1.96	2.18	2.12
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	123	65	412	295
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.31	2.23	2.79	2.41
Bicycle LOS	B	B	C	B

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26: 9th St SE & 2nd Ave SE

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Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	40	38	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	41	0	0	80
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.1% ICU Level of Service A

Analysis Period (min) 15

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26: 9th St SE & 2nd Ave SE

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Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Intersection Summary						

Area Type: Other

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26: 9th St SE & 2nd Ave SE

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Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	61	40	38	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	41	0	0	80
Intersection Summary						

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26: 9th St SE & 2nd Ave SE

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Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

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26: 9th St SE & 2nd Ave SE

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Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	56	37	35	3	3	71
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No	No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	93	0	38	0	0	74
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.94	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1791	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	6.9	0.0		0.0		
Adj Reference Time (s)	10.9	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			119		0	120
Reference Time A (s)			38.2		0.0	73.8
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			2.5		0.0	4.9
Ref Time Seperate (s)			2.3		0.2	4.7
Reference Time (s)			2.5		4.9	4.9
Adj Reference Time (s)			8.0		8.9	8.9
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		8.9	
Minimum (s)	0.0		8.0		8.9	16.9
Right Turns	EBR					
Adj Reference Time (s)	10.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	10.9					
Intersection Summary						
Intersection Capacity Utilization		14.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

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Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893		0.905		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1662	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	243	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	0	68	0	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	43.5%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1C

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.893		0.905		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1662	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

OPENING YEAR 1C

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	64	243	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	0	68	0	248	0
Intersection Summary						

OPENING YEAR 1C

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

OPENING YEAR 1C

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	59	224	18	44	224	5
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	283	0	62	0	229	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1657	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	307.4		66.7		228.9	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	20.5		4.4		15.3	
Ref Time Seperate (s)	4.3		1.3		14.9	
Reference Time (s)	20.5		4.4		15.3	
Adj Reference Time (s)	24.5		8.4		19.3	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	24.5		8.4		19.3	
Minimum (s)	24.5		8.4		19.3	52.2
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		43.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.929			0.955		0.988			0.999	
Flt Protected		0.977			0.968		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1722	0	1759	0	0	1773	0
Flt Permitted		0.977			0.968		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1722	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	0	47	2	0	1	299	29	61	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	89	0	0	3	0	328	0	0	346	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	49.6%					ICU Level of Service A					
Analysis Period (min)	15										

OPENING YEAR 1C

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.929			0.955		0.988			0.999	
Flt Protected		0.977			0.968		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1722	0	1759	0	0	1773	0
Flt Permitted		0.977			0.968		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1722	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

OPENING YEAR 1C

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	42	0	47	2	0	1	299	29	61	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	89	0	0	3	0	328	0	0	346	0
Intersection Summary											

OPENING YEAR 1C

30: Beltline Rd

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

OPENING YEAR 1C

30: Beltline Rd

01/15/2025

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right	No			No			No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	82	0	0	3	0	302	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.92	0.85	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1709	0	0	1745	0	1789	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00	
Protected Option Allowed	No			No			No			No	
Reference Time (s)	0.0			0.0			0.0			0.0	
Adj Reference Time (s)	0.0			0.0			0.0			0.0	
Permitted Option											
Adj Saturation A (vph)	0	1606		0	1193		119		0	120	
Reference Time A (s)	0.0	6.1		0.0	0.3		303.8		0.0	317.3	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	10.6	13.8		8.1	8.2		NA		NA	NA	
Reference Time (s)	6.1			0.3							
Adj Reference Time (s)	10.1			8.0							
Split Option											
Ref Time Combined (s)	0.0	5.8		0.0	0.2		20.3		0.0	21.2	
Ref Time Seperate (s)	2.6	0.0		0.1	0.0		18.4		3.7	17.3	
Reference Time (s)	5.8	5.8		0.2	0.2		20.3		21.2	21.2	
Adj Reference Time (s)	9.8	9.8		8.0	8.0		24.3		25.2	25.2	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	10.1		Err		Err						
Split Option (s)	17.8		24.3		25.2						
Minimum (s)	10.1		24.3		25.2		59.5				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization	49.6%			ICU Level of Service					A		
Reference Times and Phasing Options do not represent an optimized timing plan.											

OPENING YEAR 1C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	59	4	12	60	105	0	235	33	88	235	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	268	0	0	352	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	51.7%				ICU Level of Service A							
Analysis Period (min)	15											

OPENING YEAR 1C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	59	4	12	60	105	0	235	33	88	235	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	268	0	0	352	0
Intersection Summary												

OPENING YEAR 1C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

31: 2nd Ave SE

01/15/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	66	0	0	163	0	0	246	0	0	324	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1865	0	0	1853	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1865		0	383	
Reference Time A (s)	0.0	6.6		0.0	13.3		0.0	15.8		0.0	101.5	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.7	19.3		NA	NA		NA	NA	
Reference Time (s)	6.6			13.3			15.8			101.5		
Adj Reference Time (s)	10.6			17.3			19.8			105.5		
Split Option												
Ref Time Combined (s)	0.0	4.2		0.0	11.3		0.0	15.8		0.0	21.0	
Ref Time Seperate (s)	0.5	3.4		0.7	3.8		0.0	13.9		5.4	13.9	
Reference Time (s)	4.2	4.2		11.3	11.3		15.8	15.8		21.0	21.0	
Adj Reference Time (s)	8.2	8.2		15.3	15.3		19.8	19.8		25.0	25.0	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.3		105.5									
Split Option (s)	23.6		44.8									
Minimum (s)	17.3		44.8		62.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	51.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
31: 2nd Ave SE

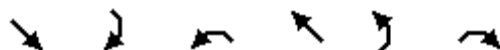
01/15/2025

Intersection												
Int Delay, s/veh	5.6											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Future Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	59	4	12	60	105	0	235	33	88	235	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	760	694	250	709	692	252	264	0	0	268	0	0
Stage 1	426	426	-	252	252	-	-	-	-	-	-	-
Stage 2	334	268	-	457	440	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	323	366	789	349	367	787	1300	-	-	1296	-	-
Stage 1	606	586	-	752	698	-	-	-	-	-	-	-
Stage 2	680	687	-	583	578	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	337	789	283	338	787	1300	-	-	1296	-	-
Mov Cap-2 Maneuver	227	337	-	283	338	-	-	-	-	-	-	-
Stage 1	606	539	-	752	698	-	-	-	-	-	-	-
Stage 2	538	687	-	475	532	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	19		16		0		2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1300	-	-	502	329	1296	-	-				
HCM Lane V/C Ratio	-	-	-	0.353	0.218	0.068	-	-				
HCM Control Delay (s)	0	-	-	16	19	8	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.6	0.8	0.2	-	-				

OPENING YEAR 1C

38: 2nd Ave SE

01/15/2025

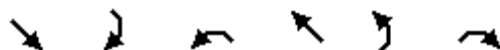


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 28.1%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1C

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other

OPENING YEAR 1C

38: 2nd Ave SE

01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Intersection Summary						

OPENING YEAR 1C

38: 2nd Ave SE

01/15/2025

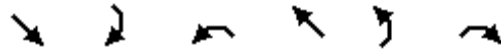


Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1C

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	112	24	20	120	13	12
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	136	0	0	140	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	8.8		0.0	27.9	26.2	
Adj Saturation B (vph)	1850		NA	NA	NA	
Reference Time B (s)	8.8		NA	NA	NA	
Reference Time (s)	8.8			27.9		
Adj Reference Time (s)	12.8			31.9		
Split Option						
Ref Time Combined (s)	8.8		0.0	8.9	1.7	
Ref Time Seperate (s)	7.3		1.3	7.6	0.9	
Reference Time (s)	8.8		8.9	8.9	1.7	
Adj Reference Time (s)	12.8		12.9	12.9	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	31.9		Err			
Split Option (s)	25.7		8.0			
Minimum (s)	25.7		8.0	33.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
38: 2nd Ave SE

01/15/2025

Intersection						
Int Delay, s/veh	1.3					
Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	112	24	20	120	13	12
Future Vol, veh/h	112	24	20	120	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	26	22	130	14	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	309	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1434	-	683	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1434	-	671	914
Mov Cap-2 Maneuver	-	-	-	-	671	-
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	841	-
Approach	SE		NW		NE	
HCM Control Delay, s	0		1.1		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER	
Capacity (veh/h)	769	1434	-	-	-	
HCM Lane V/C Ratio	0.035	0.015	-	-	-	
HCM Control Delay (s)	9.9	7.5	0	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	0	-	-	-	

OPENING YEAR 1C

49: 6th St SE

01/15/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.936	0.865							
Flt Protected					0.996					0.950			
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Flt Permitted					0.996					0.950			
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Link Speed (mph)					30	30				30			
Link Distance (ft)					480	697				223			
Travel Time (s)					10.9	15.8				5.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)					0	0				0			
Link Offset(ft)					0	0				0			
Crosswalk Width(ft)					16	16				16			
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Sign Control	Stop				Stop				Free				
Intersection Summary													
Area Type:	Other												
Control Type: Unsignalized													
Intersection Capacity Utilization 31.0%													
ICU Level of Service A													
Analysis Period (min) 15													

OPENING YEAR 1C

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Intersection Summary												

OPENING YEAR 1C

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	45	0	0	127	0	0	8	0	0	68	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	2.8		0.0	18.6		0.0	0.6		0.0	67.8	
Adj Saturation B (vph)	0	1900		0	0		0	1615		0	0	
Reference Time B (s)	0.0	2.8		8.7	16.7		0.0	0.6		12.5	12.5	
Reference Time (s)	2.8		16.7			0.6			12.5			
Adj Reference Time (s)	8.0		20.7			8.0			16.5			
Split Option												
Ref Time Combined (s)	0.0	2.8		0.0	8.7		0.0	0.6		0.0	4.5	
Ref Time Seperate (s)	0.0	2.8		0.7	3.9		0.0	0.0		4.5	0.0	
Reference Time (s)	2.8	2.8		8.7	8.7		0.6	0.6		4.5	4.5	
Adj Reference Time (s)	8.0	8.0		12.7	12.7		8.0	8.0		8.5	8.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.7		16.5									
Split Option (s)	20.7		16.5									
Minimum (s)	20.7		16.5		37.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.0%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C

49: 6th St SE

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	0	11	62	65	0	0	9	74	0	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	216	157	0	178	153	5	0	0	0	9	0	0
Stage 1	148	148	-	5	5	-	-	-	-	-	-	-
Stage 2	68	9	-	173	148	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	740	735	-	784	739	1078	-	-	-	1611	-	-
Stage 1	855	775	-	1017	892	-	-	-	-	-	-	-
Stage 2	942	888	-	829	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	626	701	-	-	705	1078	-	-	-	1611	-	-
Mov Cap-2 Maneuver	626	701	-	-	705	-	-	-	-	-	-	-
Stage 1	855	739	-	1017	892	-	-	-	-	-	-	-
Stage 2	824	888	-	739	739	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s						0			7.3			
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	-	-	-	-	-	1611	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	0.046	-	-				
HCM Control Delay (s)	0	-	-	-	-	7.3	0	-				
HCM Lane LOS	A	-	-	-	-	A	A	-				
HCM 95th %tile Q(veh)	-	-	-	-	-	0.1	-	-				

OPENING YEAR 1C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.994				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Flt Permitted		0.976			0.950			0.994				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	0	2	4	0	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	4	0	0	41	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.994				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Flt Permitted		0.976			0.950			0.994				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	0	2	4	0	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	4	0	0	41	0	0	55	0
Intersection Summary												

OPENING YEAR 1C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	4	0	0	4	0	0	38	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.95	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1714	0	0	1805	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1919			0	1023			0	630		
Reference Time A (s)	0.0	0.3			0.0	0.5			0.0	7.2		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	8.1	8.3			8.3	8.3			8.3	10.4		
Reference Time (s)												
Adj Reference Time (s)												
Split Option												
Ref Time Combined (s)	0.0	0.3			0.0	0.3			0.0	2.4		
Ref Time Seperate (s)	0.1	0.0			0.3	0.0			0.3	1.9		
Reference Time (s)	0.3	0.3			0.3	0.3			2.4	2.4		
Adj Reference Time (s)	8.0	8.0			8.0	8.0			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		11.2									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		11.2		19.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection												
Intersection Delay, s/veh	7.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Future Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	2	4	0	0	5	33	3	0	55	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	50%	100%	0%
Vol Thru, %	79%	0%	0%	100%
Vol Right, %	8%	50%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	4	4	51
LT Vol	5	2	4	0
Through Vol	30	0	0	51
RT Vol	3	2	0	0
Lane Flow Rate	41	4	4	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.005	0.005	0.061
Departure Headway (Hd)	3.97	3.905	4.305	3.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	904	912	828	902
Service Time	1.984	1.946	2.347	1.992
HCM Lane V/C Ratio	0.045	0.004	0.005	0.061
HCM Control Delay	7.2	7	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.2

OPENING YEAR 1C
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	4	434	407	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	0	438	407	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.2%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1C
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1C
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	3	4	434	407	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	3	0	0	438	407	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1C
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	3	4	399	374	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	3	0	0	403	374	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	1615	0	0	1899	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	108	0		1666	1900	
Reference Time A (s)	3.3	0.0		29.0	23.6	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				29.0	23.6	
Adj Reference Time (s)				33.0	27.6	
Split Option						
Ref Time Combined (s)	0.2	0.0		25.5	23.6	
Ref Time Seperate (s)	0.0	0.3		25.2	23.6	
Reference Time (s)	0.2	25.5		25.5	23.6	
Adj Reference Time (s)	8.0	29.5		29.5	27.6	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	33.0				
Split Option (s)	8.0	57.1				
Minimum (s)	8.0	33.0		41.0		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	34.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
53: IA 136 & 13th Ave SE

01/15/2025

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	4	399	374	0
Future Vol, veh/h	0	3	4	399	374	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	4	434	407	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	849	407	407	0	-	0
Stage 1	407	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	331	644	1152	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	329	644	1152	-	-	-
Mov Cap-2 Maneuver	451	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.6	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1152	-	644	-	-	
HCM Lane V/C Ratio	0.004	-	0.005	-	-	
HCM Control Delay (s)	8.1	0	10.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Intersection Summary												

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	85	0	0	99	0	0	51	0	0	20	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	5.8		0.0	16.4		0.0	3.7		0.0	2.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	13.5		10.3	14.5		9.3	11.6		8.9	9.4	
Reference Time (s)	5.8			14.5			3.7			2.2		
Adj Reference Time (s)	9.8			18.5			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.5		0.0	6.5		0.0	3.6		0.0	1.4	
Ref Time Seperate (s)	0.5	4.1		2.3	3.5		1.3	0.1		0.9	0.1	
Reference Time (s)	5.5	5.5		6.5	6.5		3.6	3.6		1.4	1.4	
Adj Reference Time (s)	9.5	9.5		10.5	10.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.5		8.0									
Split Option (s)	20.0		16.0									
Minimum (s)	18.5		8.0		26.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	70	14	38	60	10	22	1	33	14	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	84	0	0	240	241	77	253	243	65
Stage 1	-	-	-	-	-	-	95	95	-	141	141	-
Stage 2	-	-	-	-	-	-	145	146	-	112	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1531	-	-	1513	-	-	714	660	984	700	659	999
Stage 1	-	-	-	-	-	-	912	816	-	862	780	-
Stage 2	-	-	-	-	-	-	858	776	-	893	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1531	-	-	1513	-	-	691	639	984	659	638	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	639	-	659	638	-
Stage 1	-	-	-	-	-	-	907	811	-	857	760	-
Stage 2	-	-	-	-	-	-	829	756	-	857	806	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.6			9.6			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	836	1531	-	-	1513	-	-	718				
HCM Lane V/C Ratio	0.066	0.006	-	-	0.025	-	-	0.03				
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1				

OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	0	0	82	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	82	0	0	37	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.9%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	22	0	0	82	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	82	0	0	37	0	0	8	0
Intersection Summary												

OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	20	0	0	75	0	0	34	0	0	7	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Reference Time (s)	1.3				4.7				2.5			
Adj Reference Time (s)	8.0				8.7				8.0			
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	4.7		0.0	2.5		0.0	0.4	
Ref Time Seperate (s)	0.0	1.3		0.0	4.7		0.0	0.0		0.0	0.4	
Reference Time (s)	1.3	1.3		4.7	4.7		2.5	2.5		0.4	0.4	
Adj Reference Time (s)	8.0	8.0		8.7	8.7		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.7		8.0									
Split Option (s)	16.7		16.0									
Minimum (s)	8.7		8.0		16.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.9%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

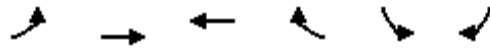
OPENING YEAR 1C
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	0	0	82	0	0	0	37	0	8	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	22	0	0	108	104	22	123	104	82
Stage 1	-	-	-	-	-	-	22	22	-	82	82	-
Stage 2	-	-	-	-	-	-	86	82	-	41	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1515	-	-	1593	-	-	871	786	1055	852	786	978
Stage 1	-	-	-	-	-	-	996	877	-	926	827	-
Stage 2	-	-	-	-	-	-	922	827	-	974	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1593	-	-	865	786	1055	822	786	978
Mov Cap-2 Maneuver	-	-	-	-	-	-	865	786	-	822	786	-
Stage 1	-	-	-	-	-	-	996	877	-	926	827	-
Stage 2	-	-	-	-	-	-	914	827	-	940	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1055	1515	-	-	1593	-	-	786				
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.01				
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.960		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	57	80	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	114	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 15.8% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

01/15/2025



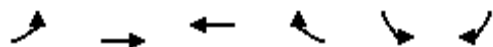
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

Area Type: Other

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

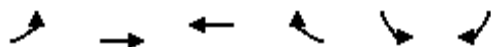
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	2	57	80	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	114	0	44	0
Intersection Summary						

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

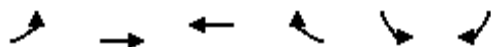
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	2	52	74	31	39	2
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	54	105	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.96	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1816	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1816		120	
Reference Time A (s)	0.0	5.2	6.9		41.1	
Adj Saturation B (vph)	0	0	1816		NA	
Reference Time B (s)	8.1	11.4	6.9		NA	
Reference Time (s)		5.2	6.9			
Adj Reference Time (s)		9.2	10.9			
Split Option						
Ref Time Combined (s)	0.0	3.4	6.9		2.7	
Ref Time Seperate (s)	0.1	3.3	4.9		2.6	
Reference Time (s)	3.4	3.4	6.9		2.7	
Adj Reference Time (s)	8.0	8.0	10.9		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	10.9		Err			
Split Option (s)	18.9		8.0			
Minimum (s)	10.9		8.0		18.9	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		15.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
62: 2nd Ave SE & 7th St SE

01/15/2025

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	74	31	39	2
Future Vol, veh/h	2	52	74	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	57	80	34	42	2
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	158	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1475	-	-	-	833	959
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1475	-	-	-	832	959
Mov Cap-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	962	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		9.5	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1475	-	-	-	837	
HCM Lane V/C Ratio	0.001	-	-	-	0.053	
HCM Control Delay (s)	7.4	0	-	-	9.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Intersection Summary												

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	41	0	0	30	0	0	0	0	0	12	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	3.8		0.0	2.4		0.0	0.0		0.0	1.1	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.5	10.6		8.3	9.9		0.0	0.0		8.4	8.8	
Reference Time (s)	3.8			2.4			0.0			1.1		
Adj Reference Time (s)	8.0			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.6		0.0	1.9		0.0	0.0		0.0	0.8	
Ref Time Seperate (s)	0.5	2.0		0.3	1.4		0.0	0.0		0.4	0.0	
Reference Time (s)	2.6	2.6		1.9	1.9		0.0	0.0		0.8	0.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	34	3	4	24	4	0	0	0	7	0	7
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	32	18	4	36	21	0	7	0	0	0	0	0
Stage 1	18	18	-	0	0	-	-	-	-	-	-	-
Stage 2	14	0	-	36	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	876	1080	970	873	-	1614	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	980	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	876	1080	939	873	-	1614	-	-	-	-	-
Mov Cap-2 Maneuver	-	876	-	939	873	-	-	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	940	878	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1614	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.995			0.979			0.919	
Flt Protected		0.977			0.996			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1846	0	0	1773	0	0	1686	0
Flt Permitted		0.877			0.984			0.902			0.942	
Satd. Flow (perm)	0	1622	0	0	1824	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	45	5	5	53	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	60	0	0	19	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.14			0.08			0.03			0.08	
Control Delay		9.0			8.6			7.8			4.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			8.6			7.8			4.5	

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.0			8.6			7.8			4.5	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.7

Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.995			0.979			0.919	
Flt Protected		0.977			0.996			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1846	0	0	1773	0	0	1686	0
Flt Permitted		0.877			0.984			0.902			0.942	
Satd. Flow (perm)	0	1622	0	0	1824	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

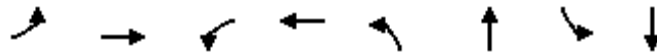
OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	43	45	5	5	53	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	60	0	0	19	0	0	55	0
Intersection Summary												

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	49	10	5	16	5
Future Volume (vph)	40	41	5	49	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.14		0.08		0.03		0.08
Control Delay		9.0		8.6		7.8		4.5
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.0		8.6		7.8		4.5
LOS		A		A		A		A
Approach Delay		9.0		8.6		7.8		4.5
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.7

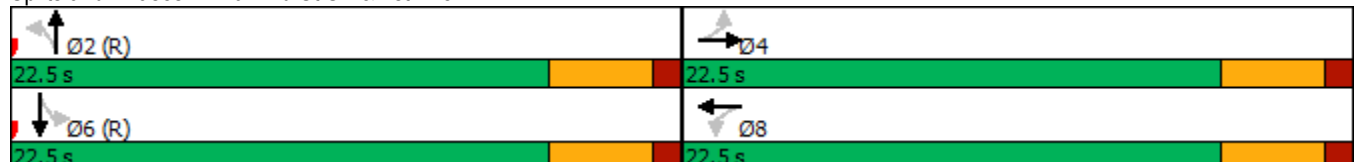
Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

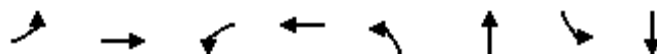
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

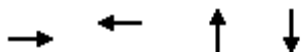
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	93	60	19	55
v/c Ratio	0.14	0.08	0.03	0.08
Control Delay	9.0	8.6	7.8	4.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	8.6	7.8	4.5
Queue Length 50th (ft)	14	9	2	2
Queue Length 95th (ft)	35	25	11	m14
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	651	730	659	665
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.03	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	86	0	0	56	0	0	18	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1881	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	566			0	1859			0	1036		
Reference Time A (s)	0.0	18.2			0.0	3.6			0.0	2.1		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	10.7	13.6			8.3	11.6			8.7	9.2		
Reference Time (s)	13.6				3.6				2.1			
Adj Reference Time (s)	18.1				9.5				9.5			
Split Option												
Ref Time Combined (s)	0.0	5.6			0.0	3.6			0.0	1.2		
Ref Time Seperate (s)	2.7	2.6			0.3	3.1			0.7	0.3		
Reference Time (s)	5.6	5.6			3.6	3.6			1.2	1.2		
Adj Reference Time (s)	10.1	10.1			9.5	9.5			9.5	9.5		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.1		9.5									
Split Option (s)	19.6		19.0									
Minimum (s)	18.1		9.5		27.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.0%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	53	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	356	35	107	691	25	447	195	97	250	107	379
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	634	889	87	51	1728	61	803	489	242	363	269	948
Grp Volume(v), veh/h	93	0	0	60	0	0	19	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1610	0	0	1840	0	0	1533	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.9	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	0.46		0.05	0.08		0.03	0.58		0.16	0.31		0.60
Lane Grp Cap(c), veh/h	761	0	0	823	0	0	740	0	0	737	0	0
V/C Ratio(X)	0.12	0.00	0.00	0.07	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	761	0	0	823	0	0	740	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	8.4	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		93			60			19			55	
Approach Delay, s/veh		8.9			8.5			8.2			8.6	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.3		3.4		2.9		2.9				
Green Ext Time (p_c), s		0.0		0.3		0.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.7								
HCM 6th LOS				A								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	53	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	371	356	35	107	691	25	447	195	97	250	107	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	8.9	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	93			60			19			55		
Approach Delay, s/veh	8.9			8.5			8.2			8.6		
Approach LOS	A			A			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	8.0			8.0			8.0			8.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.3			5.3			5.5			5.3		
Max Q Clear (g_c+I1), s	2.3			3.4			2.9			2.9		
Green Ext Time (g_e), s	0.0			0.3			0.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	803			634			363			51		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	489			889			269			1728		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	242			87			948			61		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R			L+T+R			L+T+R			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	19	0	93	0	55	0	60
Grp Sat Flow (s), veh/h/ln	0	1533	0	1610	0	1580	0	1840
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1391	0	1370	0	1430	0	1376
Shared LT Sat Flow (s_sh), veh/h/ln	0	1818	0	1828	0	1842	0	1863
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.1	0.0	17.1	0.0	17.7	0.0	16.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.5	0.0	2.3	0.0	4.3	0.0	11.9
Serve Time pre Blk (g_fs), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	0.58	0.00	0.46	0.00	0.31	0.00	0.08
Lane Grp Cap (c), veh/h	0	740	0	761	0	737	0	823
V/C Ratio (X)	0.00	0.03	0.00	0.12	0.00	0.07	0.00	0.07
Avail Cap (c_a), veh/h	0	740	0	761	0	737	0	823
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.5	0.0	8.4	0.0	8.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.2	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	8.9	0.0	8.6	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.05	0.00	0.60	0.00	0.03
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

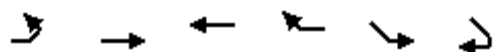
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.79	1.76	1.71	1.75
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	93	60	19	55
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.08	2.03	1.96	2.02
Bicycle LOS	B	B	B	B

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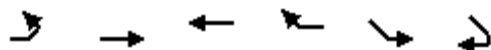


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	188	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	188	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 12.4%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1C

72:

01/15/2025



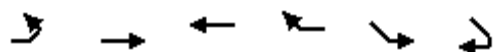
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Intersection Summary						

Area Type: Other

OPENING YEAR 1C

72:

01/15/2025

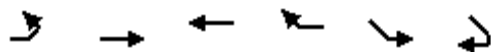


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	188	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	188	0	0	0	0
Intersection Summary						

OPENING YEAR 1C

72:

01/15/2025

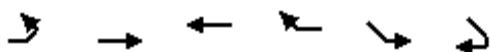


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1C

72:

01/15/2025



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	173	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	173	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	10.9	0.0	0.0		0.0
Adj Reference Time (s)	0.0	14.9	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	10.9	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	10.9	NA		NA	
Reference Time (s)		10.9	0.0			
Adj Reference Time (s)		14.9	8.0			
Split Option						
Ref Time Combined (s)	0.0	10.9	0.0		0.0	
Ref Time Seperate (s)	0.0	10.9	0.0		0.0	
Reference Time (s)	10.9	10.9	0.0		0.0	
Adj Reference Time (s)	14.9	14.9	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	14.9		NA			
Permitted Option (s)	14.9		Err			
Split Option (s)	14.9		0.0			
Minimum (s)	14.9		0.0	14.9		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		12.4%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.957			0.930			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	25	10	25	30	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	81	0	0	46	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.975			0.957			0.930			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1783	0	0	1756	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	25	10	25	30	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	81	0	0	46	0	0	77	0
Intersection Summary												

OPENING YEAR 1C

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	50	0	0	75	0	0	42	0	0	71	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1815	0	0	1781	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1291		0	1438		0	1567		0	1102	
Reference Time A (s)	0.0	4.6		0.0	6.3		0.0	3.2		0.0	7.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.2	11.3		9.5	13.1		8.9	10.9		10.5	12.8	
Reference Time (s)		4.6			6.3			3.2			7.7	
Adj Reference Time (s)		8.6			10.3			8.0			11.7	
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	5.1		0.0	2.9		0.0	4.8	
Ref Time Seperate (s)	1.2	1.5		1.5	1.9		0.9	0.4		2.5	1.0	
Reference Time (s)	3.3	3.3		5.1	5.1		2.9	2.9		4.8	4.8	
Adj Reference Time (s)	8.0	8.0		9.1	9.1		8.0	8.0		8.8	8.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		11.7									
Split Option (s)	17.1		16.8									
Minimum (s)	10.3		11.7		22.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

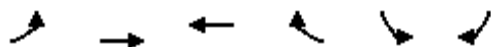
OPENING YEAR 1C
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Future Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	25	10	25	30	26	15	7	24	40	16	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	35	0	0	182	176	30	179	168	43
Stage 1	-	-	-	-	-	-	70	70	-	93	93	-
Stage 2	-	-	-	-	-	-	112	106	-	86	75	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1576	-	-	779	717	1044	783	725	1027
Stage 1	-	-	-	-	-	-	940	837	-	914	818	-
Stage 2	-	-	-	-	-	-	893	807	-	922	833	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1576	-	-	733	696	1044	743	704	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	733	696	-	743	704	-
Stage 1	-	-	-	-	-	-	928	826	-	902	805	-
Stage 2	-	-	-	-	-	-	844	794	-	882	822	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.6			2.2			9.4			10		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	861	1549	-	-	1576	-	-	792				
HCM Lane V/C Ratio	0.053	0.013	-	-	0.016	-	-	0.097				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	10				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3				

OPENING YEAR 1C
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.0%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1C
80: Beltline Rd & 8th St NW

01/15/2025



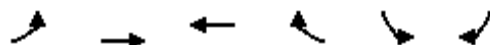
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

Area Type: Other

OPENING YEAR 1C
80: Beltline Rd & 8th St NW

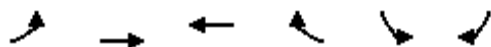
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Intersection Summary						

OPENING YEAR 1C
80: Beltline Rd & 8th St NW

01/15/2025

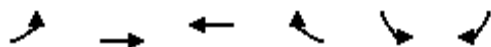


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1C

80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	13	50	44	25	8	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	63	69	0	32	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	16.6	4.6		34.6	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	8.9	12.0	4.6		NA	
Reference Time (s)		12.0	4.6			
Adj Reference Time (s)		16.0	8.6			
Split Option						
Ref Time Combined (s)	0.0	4.0	4.6		2.3	
Ref Time Seperate (s)	0.9	3.2	2.9		0.6	
Reference Time (s)	4.0	4.0	4.6		2.3	
Adj Reference Time (s)	8.0	8.0	8.6		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	16.0		Err			
Split Option (s)	16.6		8.0			
Minimum (s)	16.0		8.0		24.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
80: Beltline Rd & 8th St NW

01/15/2025

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	54	48	27	9	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	75	0	-	0	144	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1524	-	-	-	849	1003
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	841	1003
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	941	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1524	-	-	-	957	
HCM Lane V/C Ratio	0.009	-	-	-	0.036	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.963			0.939			0.937	
Flt Protected		0.998			0.994			0.978			0.977	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Flt Permitted		0.998			0.994			0.978			0.977	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	13	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.963			0.939			0.937	
Flt Protected		0.998			0.994			0.978			0.977	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Flt Permitted		0.998			0.994			0.978			0.977	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	13	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	28	0
Intersection Summary												

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	106	0	0	11	0	0	26	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1728	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1732		0	1010		0	1373		0	1353	
Reference Time A (s)	0.0	5.8		0.0	12.6		0.0	1.0		0.0	2.3	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.2	13.3		8.8	15.0		8.3	8.8		8.8	9.8	
Reference Time (s)	5.8			12.6			1.0			2.3		
Adj Reference Time (s)	9.8			16.6			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	7.0		0.0	0.8		0.0	1.8	
Ref Time Seperate (s)	0.2	5.0		0.8	4.3		0.3	0.1		0.8	0.1	
Reference Time (s)	5.3	5.3		7.0	7.0		0.8	0.8		1.8	1.8	
Adj Reference Time (s)	9.3	9.3		11.0	11.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.6		8.0									
Split Option (s)	20.3		16.0									
Minimum (s)	16.6		8.0		24.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	20.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	86	1	13	71	32	5	1	5	13	2	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	87	0	0	214	222	87	209	206	87
Stage 1	-	-	-	-	-	-	93	93	-	113	113	-
Stage 2	-	-	-	-	-	-	121	129	-	96	93	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1489	-	-	1509	-	-	743	677	971	748	691	971
Stage 1	-	-	-	-	-	-	914	818	-	892	802	-
Stage 2	-	-	-	-	-	-	883	789	-	911	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1509	-	-	725	670	971	737	683	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	670	-	737	683	-
Stage 1	-	-	-	-	-	-	912	816	-	890	795	-
Stage 2	-	-	-	-	-	-	861	782	-	903	816	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.5			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	813	1489	-	-	1509	-	-	824				
HCM Lane V/C Ratio	0.015	0.002	-	-	0.009	-	-	0.034				
HCM Control Delay (s)	9.5	7.4	0	-	7.4	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

OPENING YEAR 1C

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.979			0.940			0.940	
Flt Protected		0.989			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Flt Permitted		0.989			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	25	12	12	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	64	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 14.1%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1C
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.979			0.940			0.940	
Flt Protected		0.989			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Flt Permitted		0.989			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1807	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	25	12	12	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	64	0	0	36	0	0	36	0
Intersection Summary												

OPENING YEAR 1C

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

96: 5th St NW & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	43	0	0	59	0	0	33	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1808	0	0	1839	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1296		0	1423		0	1099		0	1582	
Reference Time A (s)	0.0	4.0		0.0	5.0		0.0	3.6		0.0	2.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.6	10.9		8.7	11.8		9.2	10.3		8.8	10.3	
Reference Time (s)	4.0			5.0			3.6			2.5		
Adj Reference Time (s)	8.0			9.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	3.8		0.0	2.3		0.0	2.3	
Ref Time Seperate (s)	0.6	1.5		0.7	2.5		1.2	0.0		0.8	0.4	
Reference Time (s)	2.9	2.9		3.8	3.8		2.3	2.3		2.3	2.3	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	9.0		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	9.0		8.0		17.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
96: 5th St NW & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	25	12	12	42	10	20	0	16	13	7	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	37	0	0	134	127	31	130	128	47
Stage 1	-	-	-	-	-	-	51	51	-	71	71	-
Stage 2	-	-	-	-	-	-	83	76	-	59	57	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1574	-	-	838	764	1043	843	763	1022
Stage 1	-	-	-	-	-	-	962	852	-	939	836	-
Stage 2	-	-	-	-	-	-	925	832	-	953	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1574	-	-	810	753	1043	820	752	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	753	-	820	752	-
Stage 1	-	-	-	-	-	-	955	846	-	932	829	-
Stage 2	-	-	-	-	-	-	896	825	-	932	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			1.4			9.2			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	902	1554	-	-	1574	-	-	885				
HCM Lane V/C Ratio	0.04	0.006	-	-	0.008	-	-	0.041				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Future Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.981						0.971	
Flt Protected		0.981									0.987	
Satd. Flow (prot)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Flt Permitted		0.981									0.987	
Satd. Flow (perm)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	70	22	0	75	12	0	9	0	13	27	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	87	0	0	9	0	0	51	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	30.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.981						0.971	
Flt Protected		0.981									0.987	
Satd. Flow (prot)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Flt Permitted		0.981									0.987	
Satd. Flow (perm)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Future Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	58	70	22	0	75	12	0	9	0	13	27	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	87	0	0	9	0	0	51	0
Intersection Summary												

OPENING YEAR 1C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	137	0	0	80	0	0	8	0	0	47	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1822	0	0	1861	0	0	1900	0	0	1816	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	260			0	1861			0	1900		
Reference Time A (s)	0.0	63.3			0.0	5.2			0.0	0.5		
Adj Saturation B (vph)	0	0			0	1861			0	1900		
Reference Time B (s)	11.5	17.0			0.0	5.2			0.0	0.5		
Reference Time (s)	17.0				5.2				0.5			
Adj Reference Time (s)	21.0				9.2				8.0			
Split Option												
Ref Time Combined (s)	0.0	9.0			0.0	5.2			0.0	0.5		
Ref Time Seperate (s)	3.5	4.2			0.0	4.4			0.0	0.5		
Reference Time (s)	9.0	9.0			5.2	5.2			0.5	0.5		
Adj Reference Time (s)	13.0	13.0			9.2	9.2			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.0		15.1									
Split Option (s)	22.2		16.0									
Minimum (s)	21.0		15.1		36.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	30.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

Intersection				
Intersection Delay, s/veh	3.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	150	87	9	51
Demand Flow Rate, veh/h	152	88	9	52
Vehicles Circulating, veh/h	41	68	143	76
Vehicles Exiting, veh/h	87	84	50	80
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	3.4	3.1	3.2
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	152	88	9	52
Cap Entry Lane, veh/h	1323	1287	1193	1277
Entry HV Adj Factor	0.984	0.983	0.980	0.989
Flow Entry, veh/h	150	87	9	51
Cap Entry, veh/h	1303	1266	1169	1263
V/C Ratio	0.115	0.068	0.008	0.041
Control Delay, s/veh	3.7	3.4	3.1	3.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.966			0.919			0.996	
Flt Protected		0.992			0.968			0.998			0.985	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Flt Permitted		0.992			0.968			0.998			0.985	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	76	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 29.3%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.966			0.919			0.996	
Flt Protected		0.992			0.968			0.998			0.985	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Flt Permitted		0.992			0.968			0.998			0.985	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	76	0
Intersection Summary												

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	12	0	0	97	0	0	114	0	0	70	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1863	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1802	0		579	0		1693	0		544	
Reference Time A (s)	0.0	0.8	0.0		20.1	0.0		8.1	0.0		15.5	
Adj Saturation B (vph)	0	0	0		0	0		0	0		0	
Reference Time B (s)	8.1	8.8	12.3		14.6	8.3		15.9	9.4		12.5	
Reference Time (s)	0.8				14.6			8.1			12.5	
Adj Reference Time (s)	8.0				18.6			12.1			16.5	
Split Option												
Ref Time Combined (s)	0.0	0.8	0.0		6.6	0.0		7.9	0.0		4.5	
Ref Time Seperate (s)	0.1	0.3	4.3		0.5	0.3		2.9	1.4		3.0	
Reference Time (s)	0.8	0.8	6.6		6.6	7.9		7.9	4.5		4.5	
Adj Reference Time (s)	8.0	8.0	10.6		10.6	11.9		11.9	8.5		8.5	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		16.5									
Split Option (s)	18.6		20.4									
Minimum (s)	18.6		16.5		35.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
102: 3rd St SW & 3rd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	5	71	8	27	4	46	74	23	51	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	207	226	52	194	190	83	53	0	0	120	0	0
Stage 1	98	98	-	91	91	-	-	-	-	-	-	-
Stage 2	109	128	-	103	99	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	751	673	1016	765	705	976	1553	-	-	1468	-	-
Stage 1	908	814	-	916	820	-	-	-	-	-	-	-
Stage 2	896	790	-	903	813	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	713	660	1016	745	692	976	1553	-	-	1468	-	-
Mov Cap-2 Maneuver	713	660	-	745	692	-	-	-	-	-	-	-
Stage 1	905	801	-	913	818	-	-	-	-	-	-	-
Stage 2	860	788	-	878	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.3	0.3	2.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	784 789	1468	-	-
HCM Lane V/C Ratio	0.003	-	-	0.017 0.134	0.016	-	-
HCM Control Delay (s)	7.3	0	-	9.7 10.3	7.5	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.5	0	-	-

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	27	11	35	26	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	85	0	0	46	78	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.0%
Analysis Period (min)	15
ICU Level of Service A	

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	58	27	11	35	26	52
Shared Lane Traffic (%)						
Lane Group Flow (vph)	85	0	0	46	78	0
Intersection Summary						

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	53	25	10	32	24	48
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	78	0	0	42	72	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1747	0	0	1877	1710	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	116		0	404	1710	
Reference Time A (s)	80.4		0.0	12.5	5.1	
Adj Saturation B (vph)	NA		0	0	1710	
Reference Time B (s)	NA		8.7	10.7	5.1	
Reference Time (s)				10.7	5.1	
Adj Reference Time (s)				14.7	9.1	
Split Option						
Ref Time Combined (s)	5.4		0.0	2.7	5.1	
Ref Time Seperate (s)	3.6		0.7	2.0	1.7	
Reference Time (s)	5.4		2.7	2.7	5.1	
Adj Reference Time (s)	9.4		8.0	8.0	9.1	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		14.7			
Split Option (s)	9.4		17.1			
Minimum (s)	9.4		14.7		24.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 4.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations      

Traffic Vol, veh/h 53 25 10 32 24 48

Future Vol, veh/h 53 25 10 32 24 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 58 27 11 35 26 52

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 109 52 78 0 - 0

Stage 1 52 - - - - -

Stage 2 57 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 888 1016 1520 - - -

Stage 1 970 - - - - -

Stage 2 966 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 882 1016 1520 - - -

Mov Cap-2 Maneuver 882 - - - - -

Stage 1 963 - - - - -

Stage 2 966 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.3 1.8 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1520 - 921 - -

HCM Lane V/C Ratio 0.007 - 0.092 - -

HCM Control Delay (s) 7.4 0 9.3 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.3 - -

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	45	27	84	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	112	0	0	63	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.8%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.945			0.999			0.921			0.932		
Flt Protected				0.988			0.980			0.976		
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted				0.988			0.980			0.976		
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	793			1176			645			163		
Travel Time (s)	18.0			26.7			14.7			3.7		
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	65	45	27	84	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	112	0	0	63	0	0	2	0
Intersection Summary												

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	101	0	0	103	0	0	58	0	0	2	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.99	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1784	0	0	1874	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1784		0	397		0	1443		0	1233	
Reference Time A (s)	0.0	6.8		0.0	31.1		0.0	4.8		0.0	0.2	
Adj Saturation B (vph)	0	1784		0	0		0	0		0	0	
Reference Time B (s)	0.0	6.8		9.7	14.6		9.6	12.1		8.1	8.1	
Reference Time (s)	6.8			14.6			4.8			0.2		
Adj Reference Time (s)	10.8			18.6			8.8			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.8		0.0	6.6		0.0	4.1		0.0	0.1	
Ref Time Seperate (s)	0.0	4.0		1.7	4.9		1.6	0.0		0.1	0.0	
Reference Time (s)	6.8	6.8		6.6	6.6		4.1	4.1		0.1	0.1	
Adj Reference Time (s)	10.8	10.8		10.6	10.6		8.1	8.1		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		8.8									
Split Option (s)	21.4		16.1									
Minimum (s)	18.6		8.8		27.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	45	27	84	1	26	0	37	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	85	0	0	110	0	0	227	227	88	245	249	85
Stage 1	-	-	-	-	-	-	88	88	-	139	139	-
Stage 2	-	-	-	-	-	-	139	139	-	106	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1512	-	-	1480	-	-	728	672	970	709	654	974
Stage 1	-	-	-	-	-	-	920	822	-	864	782	-
Stage 2	-	-	-	-	-	-	864	782	-	900	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1480	-	-	716	659	970	672	642	974
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	659	-	672	642	-
Stage 1	-	-	-	-	-	-	920	822	-	864	767	-
Stage 2	-	-	-	-	-	-	847	767	-	866	804	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			9.6			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	846	1512	-	-	1480	-	-	795				
HCM Lane V/C Ratio	0.075	-	-	-	0.018	-	-	0.003				
HCM Control Delay (s)	9.6	0	-	-	7.5	0	-	9.5				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0				

OPENING YEAR 1C

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Future Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.979			0.865			0.954	
Flt Protected		0.968									0.995	
Satd. Flow (prot)	0	1794	0	0	1824	0	0	1611	0	0	1768	0
Flt Permitted		0.968									0.995	
Satd. Flow (perm)	0	1794	0	0	1824	0	0	1611	0	0	1768	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	23	3	0	50	9	0	0	3	8	49	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	59	0	0	3	0	0	86	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 27.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.979			0.865			0.954	
Flt Protected		0.968									0.995	
Satd. Flow (prot)	0	1794	0	0	1824	0	0	1611	0	0	1768	0
Flt Permitted		0.968									0.995	
Satd. Flow (perm)	0	1794	0	0	1824	0	0	1611	0	0	1768	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Future Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	53	23	3	0	50	9	0	0	3	8	49	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	59	0	0	3	0	0	86	0
Intersection Summary												

OPENING YEAR 1C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	73	0	0	54	0	0	3	0	0	79	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	0.85	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1825	0	0	1858	0	0	1615	0	0	1795	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	163		0	1858		0	1615		0	780	
Reference Time A (s)	0.0	53.7		0.0	3.5		0.0	0.2		0.0	12.1	
Adj Saturation B (vph)	0	0		0	1858		0	1615		0	0	
Reference Time B (s)	11.3	12.8		0.0	3.5		0.0	0.2		8.5	13.3	
Reference Time (s)		12.8			3.5			0.2			12.1	
Adj Reference Time (s)		16.8			8.0			8.0			16.1	
Split Option												
Ref Time Combined (s)	0.0	4.8		0.0	3.5		0.0	0.2		0.0	5.3	
Ref Time Seperate (s)	3.3	1.4		0.0	3.0		0.0	0.0		0.5	3.0	
Reference Time (s)	4.8	4.8		3.5	3.5		0.2	0.2		5.3	5.3	
Adj Reference Time (s)	8.8	8.8		8.0	8.0		8.0	8.0		9.3	9.3	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.8		16.1									
Split Option (s)	16.8		17.3									
Minimum (s)	16.8		16.1		32.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.5%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	21	3	0	46	8	0	0	3	7	45	27
Future Vol, veh/h	49	21	3	0	46	8	0	0	3	7	45	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	23	3	0	50	9	0	0	3	8	49	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	26	0	0	225	190	25	187	187	55
Stage 1	-	-	-	-	-	-	131	131	-	55	55	-
Stage 2	-	-	-	-	-	-	94	59	-	132	132	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1588	-	-	730	705	1051	774	708	1012
Stage 1	-	-	-	-	-	-	873	788	-	957	849	-
Stage 2	-	-	-	-	-	-	913	846	-	871	787	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1588	-	-	653	680	1051	751	683	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	653	680	-	751	683	-
Stage 1	-	-	-	-	-	-	842	760	-	924	849	-
Stage 2	-	-	-	-	-	-	835	846	-	838	759	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5			0			8.4			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1051	1545	-	-	1588	-	-	775				
HCM Lane V/C Ratio	0.003	0.034	-	-	-	-	-	0.111				
HCM Control Delay (s)	8.4	7.4	0	-	0	-	-	10.2				
HCM Lane LOS	A	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.4				

OPENING YEAR 1C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.895						0.926	
Fl _t Protected					0.989			0.995				
Satd. Flow (prot)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Fl _t Permitted					0.989			0.995				
Satd. Flow (perm)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	13	0	46	14	115	0	0	80	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	59	0	0	129	0	0	178	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 26.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.895					0.926		
Flt Protected					0.989					0.995		
Satd. Flow (prot)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Flt Permitted					0.989					0.995		
Satd. Flow (perm)	0	0	0	0	1649	0	0	1853	0	0	1725	0
Link Speed (mph)					30					30		
Link Distance (ft)					364					4320		
Travel Time (s)					8.3					18.4		
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	13	0	46	14	115	0	0	80	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	59	0	0	129	0	0	178	0
Intersection Summary												

OPENING YEAR 1C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	54	0	0	119	0	0	164	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.87	0.85	0.95	0.99	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	0	0	0	1660	0	0	1890	0	0	1744	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	378		0	722		0	1744	
Reference Time A (s)	0.0	0.0		0.0	17.2		0.0	19.8		0.0	11.3	
Adj Saturation B (vph)	0	0		0	0		NA	NA		0	1744	
Reference Time B (s)	0.0	0.0		8.8	11.9		NA	NA		0.0	11.3	
Reference Time (s)	0.0			11.9			19.8			11.3		
Adj Reference Time (s)	8.0			15.9			23.8			15.3		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	3.9		0.0	7.6		0.0	11.3	
Ref Time Seperate (s)	0.0	0.0		0.8	0.0		0.9	6.7		0.0	5.1	
Reference Time (s)	0.0	0.0		3.9	3.9		7.6	7.6		11.3	11.3	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		11.6	11.6		15.3	15.3	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.9		23.8									
Split Option (s)	8.0		26.8									
Minimum (s)	8.0		23.8		31.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	26.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Future Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	0	46	14	115	0	0	80	98
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				272	321	115	178	0	-	-	-	0
Stage 1				143	143	-	-	-	-	-	-	-
Stage 2				129	178	-	-	-	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				717	596	937	1398	-	0	0	-	-
Stage 1				884	779	-	-	-	0	0	-	-
Stage 2				897	752	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				709	0	937	1398	-	-	-	-	-
Mov Cap-2 Maneuver				709	0	-	-	-	-	-	-	-
Stage 1				874	0	-	-	-	-	-	-	-
Stage 2				897	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				9.4		0.8		0				
HCM LOS				A								
Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR							
Capacity (veh/h)	1398	-	875	-	-							
HCM Lane V/C Ratio	0.01	-	0.067	-	-							
HCM Control Delay (s)	7.6	0	9.4	-	-							
HCM Lane LOS	A	A	A	-	-							
HCM 95th %tile Q(veh)	0	-	0.2	-	-							

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	9	142	119	0	78
Future Volume (vph)	64	9	142	119	0	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983		0.938			
Flt Protected	0.958					
Satd. Flow (prot)	1754	0	1747	0	0	1863
Flt Permitted	0.958					
Satd. Flow (perm)	1754	0	1747	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	10	154	129	0	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	283	0	0	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.5% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.983		0.938			
Flt Protected	0.958					
Satd. Flow (prot)	1754	0	1747	0	0	1863
Flt Permitted	0.958					
Satd. Flow (perm)	1754	0	1747	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	64	9	142	119	0	78
Future Volume (vph)	64	9	142	119	0	78
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	70	10	154	129	0	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	283	0	0	85
Intersection Summary						

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	64	9	142	119	0	78
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	73	0	261	0	0	78
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.94	0.85	0.93	0.85	0.95	1.00
Saturated Flow (vph)	1783	0	1770	0	0	1900
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	119		1770		0	1900
Reference Time A (s)	73.7		17.7		0.0	4.9
Adj Saturation B (vph)	NA		1770		NA	NA
Reference Time B (s)	NA		17.7		NA	NA
Reference Time (s)			17.7			4.9
Adj Reference Time (s)			21.7			8.9
Split Option						
Ref Time Combined (s)	4.9		17.7		0.0	4.9
Ref Time Seperate (s)	4.3		9.6		0.0	4.9
Reference Time (s)	4.9		17.7		4.9	4.9
Adj Reference Time (s)	8.9		21.7		8.9	8.9
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		21.7			
Split Option (s)	8.9		30.6			
Minimum (s)	8.9		21.7		30.6	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		25.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1C
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	9	142	119	0	78
Future Vol, veh/h	64	9	142	119	0	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	10	154	129	0	85

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	304 219	0	0 283
Stage 1	219	-	- -
Stage 2	85	-	- -
Critical Hdwy	6.42 6.22	-	- 4.12
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518 3.318	-	- 2.218
Pot Cap-1 Maneuver	688 821	-	- 1279
Stage 1	817	-	- -
Stage 2	938	-	- -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	688 821	-	- 1279
Mov Cap-2 Maneuver	688	-	- -
Stage 1	817	-	- -
Stage 2	938	-	- -

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 702	1279	-
HCM Lane V/C Ratio	-	- 0.113	-	-
HCM Control Delay (s)	-	- 10.8	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.4	0	-

OPENING YEAR 1C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.944				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	96	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.9%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.944				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	96	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	98	0
Intersection Summary												

OPENING YEAR 1C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	0	0	0	11	0	0	90	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1807	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	123		0	0		0	1770		0	122	
Reference Time A (s)	0.0	114.9		0.0	0.0		0.0	0.7		0.0	88.4	
Adj Saturation B (vph)	0	0		0	0		0	1770		0	0	
Reference Time B (s)	15.5	15.9		0.0	0.0		0.0	0.7		13.9	14.0	
Reference Time (s)		15.9			0.0			0.7			14.0	
Adj Reference Time (s)		19.9			8.0			8.0			18.0	
Split Option												
Ref Time Combined (s)	0.0	7.9		0.0	0.0		0.0	0.7		0.0	6.0	
Ref Time Seperate (s)	7.5	0.0		0.0	0.0		0.0	0.4		5.9	0.1	
Reference Time (s)	7.9	7.9		0.0	0.0		0.7	0.7		6.0	6.0	
Adj Reference Time (s)	11.9	11.9		0.0	0.0		8.0	8.0		10.0	10.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.9		18.0									
Split Option (s)	11.9		18.0									
Minimum (s)	11.9		18.0		29.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.9%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
118: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	8.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔						↔↕			↕↔	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	0	5	0	0	0	0	7	5	96	2	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	204	206	2				-	0	0	12	0	0
Stage 1	194	194	-				-	-	-	-	-	-
Stage 2	10	12	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	784	691	1082				0	-	-	1607	-	0
Stage 1	839	740	-				0	-	-	-	-	0
Stage 2	1013	886	-				0	-	-	-	-	0
Platoon blocked, %							-	-				
Mov Cap-1 Maneuver	737	0	1082				-	-	-	1607	-	-
Mov Cap-2 Maneuver	737	0	-				-	-	-	-	-	-
Stage 1	839	0	-				-	-	-	-	-	-
Stage 2	952	0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	10.8						0			7.2		
HCM LOS	B											
Minor Lane/Major Mvmt		NBT	NBR	EBLn1	SBL	SBT						
Capacity (veh/h)		-	-	747	1607	-						
HCM Lane V/C Ratio		-	-	0.172	0.06	-						
HCM Control Delay (s)		-	-	10.8	7.4	0						
HCM Lane LOS		-	-	B	A	A						
HCM 95th %tile Q(veh)		-	-	0.6	0.2	-						

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.971			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	3	4	1	65	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	84	0	0	24	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 16.3%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.971			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1807	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	3	4	1	65	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	84	0	0	24	0	0	16	0
Intersection Summary												

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	78	0	0	23	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1837	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	237		0	1839		0	829		0	1839	
Reference Time A (s)	0.0	7.6		0.0	5.1		0.0	3.3		0.0	1.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	9.0		8.1	13.1		9.0	9.5		8.3	9.0	
Reference Time (s)	7.6			5.1			3.3			1.0		
Adj Reference Time (s)	11.6			9.1			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	5.1		0.0	1.5		0.0	1.0	
Ref Time Seperate (s)	0.5	0.2		0.1	3.9		1.0	0.3		0.3	0.6	
Reference Time (s)	1.0	1.0		5.1	5.1		1.5	1.5		1.0	1.0	
Adj Reference Time (s)	8.0	8.0		9.1	9.1		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.6		8.0									
Split Option (s)	17.1		16.0									
Minimum (s)	11.6		8.0		19.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	4	1	65	18	16	4	4	4	10	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	7	0	0	105	108	5	103	101	74
Stage 1	-	-	-	-	-	-	23	23	-	76	76	-
Stage 2	-	-	-	-	-	-	82	85	-	27	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1614	-	-	875	782	1078	877	789	988
Stage 1	-	-	-	-	-	-	995	876	-	933	832	-
Stage 2	-	-	-	-	-	-	926	824	-	990	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1514	-	-	1614	-	-	860	777	1078	865	783	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	860	777	-	865	783	-
Stage 1	-	-	-	-	-	-	989	871	-	927	831	-
Stage 2	-	-	-	-	-	-	912	823	-	975	869	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.9			0.1			9.2			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	875	1514	-	-	1614	-	-	827				
HCM Lane V/C Ratio	0.029	0.006	-	-	0.001	-	-	0.02				
HCM Control Delay (s)	9.2	7.4	0	-	7.2	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.985			0.932			0.972	
Flt Protected		0.978			0.998			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	10	1	23	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	27	0	0	32	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.985			0.932			0.972	
Flt Protected		0.978			0.998			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	16	10	1	23	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	27	0	0	32	0	0	19	0
Intersection Summary												

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	44	0	0	25	0	0	29	0	0	18	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1862	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	386		0	1856		0	1701		0	785	
Reference Time A (s)	0.0	13.7		0.0	1.6		0.0	2.0		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.3	10.9		8.1	9.6		8.4	10.0		8.7	9.2	
Reference Time (s)	10.9			1.6			2.0			2.8		
Adj Reference Time (s)	14.9			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	1.6		0.0	2.0		0.0	1.2	
Ref Time Seperate (s)	1.3	1.0		0.1	1.4		0.4	0.6		0.7	0.3	
Reference Time (s)	2.9	2.9		1.6	1.6		2.0	2.0		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.9		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	14.9		8.0		22.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	16	10	1	23	3	7	9	16	11	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	4%	56%
Vol Thru, %	28%	34%	84%	22%
Vol Right, %	52%	20%	12%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	25	18
LT Vol	6	20	1	10
Through Vol	8	15	21	4
RT Vol	15	9	3	4
Lane Flow Rate	32	48	27	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.053	0.03	0.022
Departure Headway (Hd)	3.81	4.011	3.994	4.067
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	937	893	895	878
Service Time	1.845	2.035	2.023	2.102
HCM Lane V/C Ratio	0.034	0.054	0.03	0.023
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

OPENING YEAR 1C

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 22.4%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1C
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Intersection Summary												

OPENING YEAR 1C
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	92	0	0	5	0	0	68	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1745			0	710			0	451		
Reference Time A (s)	0.0	6.3			0.0	0.8			0.0	18.1		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	9.1	14.3			8.2	8.3			11.5	12.6		
Reference Time (s)	6.3				0.8				12.6			
Adj Reference Time (s)	10.3				8.0				16.6			
Split Option												
Ref Time Combined (s)	0.0	6.3			0.0	0.3			0.0	4.6		
Ref Time Seperate (s)	1.1	2.1			0.2	0.1			3.5	0.4		
Reference Time (s)	6.3	6.3			0.3	0.3			4.6	4.6		
Adj Reference Time (s)	10.3	10.3			8.0	8.0			8.6	8.6		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		16.6									
Split Option (s)	18.3		16.6									
Minimum (s)	10.3		16.6		26.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
126: 3rd Ave SE & 4th St SE

01/15/2025

Intersection

Intersection Delay, s/veh 7.5
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	33	49	3	2	0	57	7	11	2	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.4	7.6	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	74	100	5	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.107	0.006	0.019
Departure Headway (Hd)	4.195	3.838	4.288	4.202
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	928	827	846
Service Time	2.237	1.887	2.353	2.258
HCM Lane V/C Ratio	0.087	0.108	0.006	0.019
HCM Control Delay	7.6	7.4	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0	0.1

OPENING YEAR 1C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.940			0.933			0.990	
Flt Protected		0.993			0.989			0.989			0.960	
Satd. Flow (prot)	0	1729	0	0	1732	0	0	1719	0	0	1770	0
Flt Permitted		0.993			0.989			0.989			0.960	
Satd. Flow (perm)	0	1729	0	0	1732	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	27	35	23	33	45	26	32	57	75	9	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	101	0	0	115	0	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	26.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.940			0.933			0.990	
Flt Protected		0.993			0.989			0.989			0.960	
Satd. Flow (prot)	0	1729	0	0	1732	0	0	1719	0	0	1770	0
Flt Permitted		0.993			0.989			0.989			0.960	
Satd. Flow (perm)	0	1729	0	0	1732	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	27	35	23	33	45	26	32	57	75	9	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	101	0	0	115	0	0	91	0
Intersection Summary												

OPENING YEAR 1C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1C

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	67	0	0	92	0	0	105	0	0	83	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1751	0	0	1753	0	0	1739	0	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1466		0	1115		0	1838		0	617	
Reference Time A (s)	0.0	5.5		0.0	9.9		0.0	6.9		0.0	16.1	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	12.6		9.4	14.3		9.6	15.2		12.6	13.5	
Reference Time (s)	5.5			9.9			6.9			13.5		
Adj Reference Time (s)	9.5			13.9			10.9			17.5		
Split Option												
Ref Time Combined (s)	0.0	4.6		0.0	6.3		0.0	7.2		0.0	5.5	
Ref Time Seperate (s)	0.7	1.7		1.4	2.1		1.6	2.0		4.6	0.5	
Reference Time (s)	4.6	4.6		6.3	6.3		7.2	7.2		5.5	5.5	
Adj Reference Time (s)	8.6	8.6		10.3	10.3		11.2	11.2		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.9		17.5									
Split Option (s)	18.9		20.8									
Minimum (s)	13.9		17.5		31.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	26.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1C
145: 1st Ave E

01/15/2025

Intersection				
Intersection Delay, s/veh	3.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	73	101	115	91
Demand Flow Rate, veh/h	75	103	118	92
Vehicles Circulating, veh/h	108	71	115	84
Vehicles Exiting, veh/h	68	162	68	90
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.5	3.5	3.8	3.5
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	75	103	118	92
Cap Entry Lane, veh/h	1236	1283	1227	1267
Entry HV Adj Factor	0.979	0.984	0.978	0.987
Flow Entry, veh/h	73	101	115	91
Cap Entry, veh/h	1210	1263	1200	1250
V/C Ratio	0.061	0.080	0.096	0.073
Control Delay, s/veh	3.5	3.5	3.8	3.5
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

OPENING YEAR 1C

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	28	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	11	0	0	51
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.2%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1C

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2

Intersection Summary

Area Type: Other

OPENING YEAR 1C

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	28	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	11	0	0	51
Intersection Summary						

OPENING YEAR 1C

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1C

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	26	10	0	28	19
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	26	0	10	0	0	47
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	29.0		0.6		0.0	31.1
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.6		9.9	11.1
Reference Time (s)			0.6			11.1
Adj Reference Time (s)			8.0			15.1
Split Option						
Ref Time Combined (s)	1.9		0.6		0.0	3.1
Ref Time Seperate (s)	0.0		0.6		1.9	1.2
Reference Time (s)	1.9		0.6		3.1	3.1
Adj Reference Time (s)	8.0		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.1			
Split Option (s)	8.0		16.0			
Minimum (s)	8.0		15.1		23.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	19.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	10	0	28	19
Future Vol, veh/h	0	26	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	11	0	30	21
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	92	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	908	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	891	1070	-	-	1608	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	8.5		0		4.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 1070	1608	-		
HCM Lane V/C Ratio	-	- 0.026	0.019	-		
HCM Control Delay (s)	-	- 8.5	7.3	0		
HCM Lane LOS	-	- A	A	A		
HCM 95th %tile Q(veh)	-	- 0.1	0.1	-		

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	13
Stops / Veh	0.42
Stops (#)	4818
Average Speed (mph)	28
Total Travel Time (hr)	101
Distance Traveled (mi)	2833
Fuel Consumed (gal)	151
Fuel Economy (mpg)	18.8
CO Emissions (kg)	10.54
NOx Emissions (kg)	2.05
VOC Emissions (kg)	2.44
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	26.6

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	159	259	331	379	1128
Control Delay / Veh (s/v)	7	8	11	8	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	8	11	8	8
Total Delay (hr)	0	1	1	1	3
Stops / Veh	0.35	0.38	0.57	0.46	0.46
Stops (#)	56	98	189	175	518
Average Speed (mph)	23	16	21	24	22
Total Travel Time (hr)	1	1	3	4	10
Distance Traveled (mi)	32	19	73	98	222
Fuel Consumed (gal)	2	2	5	6	14
Fuel Economy (mpg)	17.3	11.0	15.3	17.5	15.9
CO Emissions (kg)	0.13	0.12	0.33	0.39	0.97
NOx Emissions (kg)	0.02	0.02	0.06	0.08	0.19
VOC Emissions (kg)	0.03	0.03	0.08	0.09	0.23
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	174	215	317	706
Control Delay / Veh (s/v)	14	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	14	1	0	4
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.26	0.00	0.32
Stops (#)	174	55	0	229
Average Speed (mph)	12	25	30	24
Total Travel Time (hr)	1	0	2	4
Distance Traveled (mi)	14	13	70	96
Fuel Consumed (gal)	2	1	3	6
Fuel Economy (mpg)	6.9	NA	24.3	16.7
CO Emissions (kg)	0.14	0.06	0.20	0.40
NOx Emissions (kg)	0.03	0.01	0.04	0.08
VOC Emissions (kg)	0.03	0.01	0.05	0.09
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	220	220
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	1	1
Distance Traveled (mi)	16	16
Fuel Consumed (gal)	1	1
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.05	0.05
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	113	60	379	272	824
Control Delay / Veh (s/v)	4	7	11	11	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	7	11	11	10
Total Delay (hr)	0	0	1	1	2
Stops / Veh	0.25	0.53	0.64	0.67	0.59
Stops (#)	28	32	242	182	484
Average Speed (mph)	25	26	23	19	22
Total Travel Time (hr)	1	1	5	2	9
Distance Traveled (mi)	20	23	107	47	197
Fuel Consumed (gal)	1	1	7	4	12
Fuel Economy (mpg)	18.6	19.0	16.2	13.1	15.8
CO Emissions (kg)	0.08	0.09	0.46	0.25	0.87
NOx Emissions (kg)	0.01	0.02	0.09	0.05	0.17
VOC Emissions (kg)	0.02	0.02	0.11	0.06	0.20
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	93	38	74	205
Control Delay / Veh (s/v)	0	10	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.05	0.20
Stops (#)	0	38	4	42
Average Speed (mph)	30	22	30	27
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	12	8	13	32
Fuel Consumed (gal)	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	19.7
CO Emissions (kg)	0.03	0.04	0.04	0.11
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	282	63	228	573
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.11
Stops (#)	0	63	0	63
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	0	1	3
Distance Traveled (mi)	49	13	33	95
Fuel Consumed (gal)	2	1	1	4
Fuel Economy (mpg)	24.3	NA	24.3	22.3
CO Emissions (kg)	0.14	0.06	0.09	0.30
NOx Emissions (kg)	0.03	0.01	0.02	0.06
VOC Emissions (kg)	0.03	0.01	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	82	3	302	318	705
Control Delay / Veh (s/v)	22	23	3	1	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	22	23	3	1	4
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.52	0.27	0.47
Stops (#)	82	3	157	87	329
Average Speed (mph)	27	17	19	27	26
Total Travel Time (hr)	2	0	1	1	4
Distance Traveled (mi)	57	1	11	30	99
Fuel Consumed (gal)	3	0	1	2	7
Fuel Economy (mpg)	18.0	NA	7.6	16.7	15.2
CO Emissions (kg)	0.22	0.00	0.10	0.13	0.46
NOx Emissions (kg)	0.04	0.00	0.02	0.02	0.09
VOC Emissions (kg)	0.05	0.00	0.02	0.03	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	66	163	247	324	800
Control Delay / Veh (s/v)	19	16	0	2	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	19	16	0	2	6
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	0.00	0.40	0.45
Stops (#)	66	163	0	131	360
Average Speed (mph)	15	21	30	26	23
Total Travel Time (hr)	1	3	1	1	6
Distance Traveled (mi)	11	54	36	31	132
Fuel Consumed (gal)	1	4	1	2	8
Fuel Economy (mpg)	10.3	14.8	24.3	14.5	15.8
CO Emissions (kg)	0.08	0.26	0.10	0.15	0.58
NOx Emissions (kg)	0.01	0.05	0.02	0.03	0.11
VOC Emissions (kg)	0.02	0.06	0.02	0.03	0.14
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	136	140	25	301
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.21	1.00	0.18
Stops (#)	0	29	25	54
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	2
Distance Traveled (mi)	45	5	10	59
Fuel Consumed (gal)	2	0	1	3
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.13	0.03	0.04	0.20
NOx Emissions (kg)	0.03	0.01	0.01	0.04
VOC Emissions (kg)	0.03	0.01	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	45	127	8	68	248
Control Delay / Veh (s/v)	11	10	0	0	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	10	0	0	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.00	0.07	0.71
Stops (#)	45	127	0	5	177
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	1	0	1	2
Distance Traveled (mi)	4	25	0	18	48
Fuel Consumed (gal)	1	2	0	1	3
Fuel Economy (mpg)	NA	12.6	NA	NA	14.5
CO Emissions (kg)	0.04	0.14	0.00	0.05	0.23
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	4	4	38	51	97
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	4	4	38	51	97
Average Speed (mph)	20	22	24	25	24
Total Travel Time (hr)	0	0	0	1	1
Distance Traveled (mi)	0	1	10	14	25
Fuel Consumed (gal)	0	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	NA	14.8
CO Emissions (kg)	0.00	0.00	0.05	0.07	0.12
NOx Emissions (kg)	0.00	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.00	0.01	0.02	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	3	403	374	780
Control Delay / Veh (s/v)	11	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.02	0.00	0.02
Stops (#)	3	9	0	12
Average Speed (mph)	20	30	30	30
Total Travel Time (hr)	0	3	4	7
Distance Traveled (mi)	1	104	105	210
Fuel Consumed (gal)	0	4	4	9
Fuel Economy (mpg)	NA	24.0	24.3	24.1
CO Emissions (kg)	0.00	0.30	0.30	0.61
NOx Emissions (kg)	0.00	0.06	0.06	0.12
VOC Emissions (kg)	0.00	0.07	0.07	0.14
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	99	52	19	256
Control Delay / Veh (s/v)	1	2	10	10	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	10	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.37	1.00	1.00	0.47
Stops (#)	12	37	52	19	120
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	1	1	1	0	3
Distance Traveled (mi)	38	18	14	1	70
Fuel Consumed (gal)	2	1	1	0	4
Fuel Economy (mpg)	23.1	NA	NA	NA	18.8
CO Emissions (kg)	0.11	0.07	0.07	0.01	0.26
NOx Emissions (kg)	0.02	0.01	0.01	0.00	0.05
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	20	75	34	7	136
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.30
Stops (#)	0	0	34	7	41
Average Speed (mph)	30	30	9	13	22
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	2	5	1	0	9
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.02	0.00	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	54	105	40	199
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.22
Stops (#)	3	0	40	43
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	3	13	5	21
Fuel Consumed (gal)	0	1	1	1
Fuel Economy (mpg)	NA	NA	NA	17.8
CO Emissions (kg)	0.01	0.04	0.04	0.08
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	41	29	13	83
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.38	0.90
Stops (#)	41	29	5	75
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	5	4	0	9
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.03	0.00	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	55	17	51	209
Control Delay / Veh (s/v)	9	9	8	4	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	9	8	4	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.59	0.60	0.71	0.31	0.54
Stops (#)	51	33	12	16	112
Average Speed (mph)	22	19	10	24	22
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	19	7	1	8	34
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.09	0.04	0.01	0.03	0.16
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.04
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	173	173
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	5	5
Distance Traveled (mi)	285	285
Fuel Consumed (gal)	10	10
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.68	0.68
NOx Emissions (kg)	0.13	0.13
VOC Emissions (kg)	0.16	0.16
Unservd Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	51	75	42	71	239
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.33	1.00	1.00	0.65
Stops (#)	18	25	42	71	156
Average Speed (mph)	33	34	20	17	30
Total Travel Time (hr)	1	2	0	0	3
Distance Traveled (mi)	19	52	6	8	85
Fuel Consumed (gal)	1	2	1	1	5
Fuel Economy (mpg)	NA	23.7	NA	NA	18.9
CO Emissions (kg)	0.06	0.15	0.04	0.06	0.32
NOx Emissions (kg)	0.01	0.03	0.01	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.01	0.01	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	63	69	32	164
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.25	0.00	1.00	0.29
Stops (#)	16	0	32	48
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	11	14	4	29
Fuel Consumed (gal)	1	1	0	1
Fuel Economy (mpg)	NA	NA	NA	19.5
CO Emissions (kg)	0.04	0.04	0.03	0.10
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	83	107	10	26	226
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.05	0.16	1.00	1.00	0.25
Stops (#)	4	17	10	26	57
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	21	16	3	4	44
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	19.9
CO Emissions (kg)	0.06	0.05	0.01	0.03	0.16
NOx Emissions (kg)	0.01	0.01	0.00	0.00	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	43	59	33	33	168
Control Delay / Veh (s/v)	1	1	9	9	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	1	9	9	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.26	0.24	1.00	1.00	0.54
Stops (#)	11	14	33	33	91
Average Speed (mph)	33	34	20	18	29
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	9	22	5	4	40
Fuel Consumed (gal)	0	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.7
CO Emissions (kg)	0.03	0.07	0.03	0.03	0.16
NOx Emissions (kg)	0.01	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.02	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 7th St SW/Beltline Rd & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	138	80	8	47	273
Control Delay / Veh (s/v)	0	0	1	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	1	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	138	80	8	47	273
Average Speed (mph)	30	30	30	35	30
Total Travel Time (hr)	2	1	0	0	3
Distance Traveled (mi)	66	21	5	8	100
Fuel Consumed (gal)	3	1	0	1	6
Fuel Economy (mpg)	19.0	16.0	NA	NA	17.6
CO Emissions (kg)	0.24	0.09	0.02	0.05	0.40
NOx Emissions (kg)	0.05	0.02	0.00	0.01	0.08
VOC Emissions (kg)	0.06	0.02	0.00	0.01	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	11	98	114	70	293
Control Delay / Veh (s/v)	10	10	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	10	0	2	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.33	0.47
Stops (#)	11	98	6	23	138
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	1	2	0	4
Distance Traveled (mi)	3	34	65	9	111
Fuel Consumed (gal)	0	2	3	1	6
Fuel Economy (mpg)	NA	15.9	23.9	NA	19.8
CO Emissions (kg)	0.01	0.15	0.19	0.04	0.39
NOx Emissions (kg)	0.00	0.03	0.04	0.01	0.08
VOC Emissions (kg)	0.00	0.03	0.04	0.01	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	78	42	72	192
Control Delay / Veh (s/v)	9	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	1	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.29	0.00	0.47
Stops (#)	78	12	0	90
Average Speed (mph)	22	21	30	27
Total Travel Time (hr)	1	0	1	2
Distance Traveled (mi)	17	1	41	59
Fuel Consumed (gal)	1	0	2	3
Fuel Economy (mpg)	13.4	NA	24.3	19.1
CO Emissions (kg)	0.09	0.01	0.12	0.22
NOx Emissions (kg)	0.02	0.00	0.02	0.04
VOC Emissions (kg)	0.02	0.00	0.03	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	101	103	58	2	264
Control Delay / Veh (s/v)	0	1	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.30	1.00	1.00	0.34
Stops (#)	0	31	58	2	91
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	15	23	7	0	45
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	20.0	NA	NA	18.0
CO Emissions (kg)	0.04	0.08	0.05	0.00	0.18
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.03
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	73	54	3	79	209
Control Delay / Veh (s/v)	2	0	8	10	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	8	10	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.37	0.00	1.00	1.00	0.52
Stops (#)	27	0	3	79	109
Average Speed (mph)	29	30	23	27	28
Total Travel Time (hr)	1	0	0	2	4
Distance Traveled (mi)	37	12	1	52	102
Fuel Consumed (gal)	2	0	0	3	5
Fuel Economy (mpg)	21.8	NA	NA	19.0	20.4
CO Emissions (kg)	0.12	0.03	0.00	0.19	0.35
NOx Emissions (kg)	0.02	0.01	0.00	0.04	0.07
VOC Emissions (kg)	0.03	0.01	0.00	0.04	0.08
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	54	119	164	337
Control Delay / Veh (s/v)	9	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	1	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.16	0.00	0.22
Stops (#)	54	19	0	73
Average Speed (mph)	51	29	30	40
Total Travel Time (hr)	2	1	1	4
Distance Traveled (mi)	100	18	43	160
Fuel Consumed (gal)	4	1	2	7
Fuel Economy (mpg)	22.2	NA	24.3	22.6
CO Emissions (kg)	0.31	0.06	0.12	0.50
NOx Emissions (kg)	0.06	0.01	0.02	0.10
VOC Emissions (kg)	0.07	0.01	0.03	0.12
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	74	260	78	412
Control Delay / Veh (s/v)	11	0	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.00	0.18
Stops (#)	74	0	0	74
Average Speed (mph)	26	30	30	29
Total Travel Time (hr)	1	2	2	5
Distance Traveled (mi)	38	68	47	152
Fuel Consumed (gal)	2	3	2	7
Fuel Economy (mpg)	17.8	24.3	24.3	22.3
CO Emissions (kg)	0.15	0.19	0.13	0.48
NOx Emissions (kg)	0.03	0.04	0.03	0.09
VOC Emissions (kg)	0.03	0.05	0.03	0.11
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	118	11	90	219
Control Delay / Veh (s/v)	11	0	1	6
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	1	6
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.11	0.58
Stops (#)	118	0	10	128
Average Speed (mph)	12	30	29	20
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	8	2	14	23
Fuel Consumed (gal)	1	0	1	2
Fuel Economy (mpg)	6.2	NA	NA	11.9
CO Emissions (kg)	0.09	0.00	0.04	0.13
NOx Emissions (kg)	0.02	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.00	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	15	77	22	15	129
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.40	0.01	1.00	1.00	0.34
Stops (#)	6	1	22	15	44
Average Speed (mph)	20	30	13	13	24
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	0	10	1	1	12
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.03	0.02	0.01	0.06
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	44	25	29	17	115
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	44	25	29	17	115
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	6	3	2	1	11
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.7
CO Emissions (kg)	0.04	0.02	0.02	0.01	0.09
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	92	5	69	15	181
Control Delay / Veh (s/v)	7	7	8	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	8	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	92	5	69	15	181
Average Speed (mph)	26	15	26	15	26
Total Travel Time (hr)	1	0	1	0	2
Distance Traveled (mi)	32	0	30	1	64
Fuel Consumed (gal)	2	0	2	0	4
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.14	0.00	0.12	0.01	0.27
NOx Emissions (kg)	0.03	0.00	0.02	0.00	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	67	93	106	84	350
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	67	93	106	84	350
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	1	2	1	4
Distance Traveled (mi)	2	44	64	15	125
Fuel Consumed (gal)	0	2	3	1	7
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.7
CO Emissions (kg)	0.03	0.16	0.22	0.08	0.50
NOx Emissions (kg)	0.01	0.03	0.04	0.01	0.10
VOC Emissions (kg)	0.01	0.04	0.05	0.02	0.12
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	26	10	47	83
Control Delay / Veh (s/v)	8	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	8	0	2	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.38	0.53
Stops (#)	26	0	18	44
Average Speed (mph)	23	30	19	23
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	6	2	1	9
Fuel Consumed (gal)	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.03	0.00	0.01	0.05
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.00	0.00	0.01
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	13
Stops / Veh	0.42
Stops (#)	4818
Average Speed (mph)	28
Total Travel Time (hr)	101
Distance Traveled (mi)	2833
Fuel Consumed (gal)	151
Fuel Economy (mpg)	18.8
CO Emissions (kg)	10.54
NOx Emissions (kg)	2.05
VOC Emissions (kg)	2.44
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	26.6

OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.968			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1803	0	1770	3405	0
Flt Permitted		0.942			0.953					0.542		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1803	0	1010	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			34			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	64	86	34	99	149	0	239	64	4	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	303	0	4	331	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	
v/c Ratio		0.25			0.39			0.38		0.01	0.22	

OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		6.8			7.7			10.3		8.2	7.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		6.8			7.7			10.3		8.2	7.0	
LOS		A			A			B		A	A	
Approach Delay		6.8			7.7			10.3			7.1	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.1

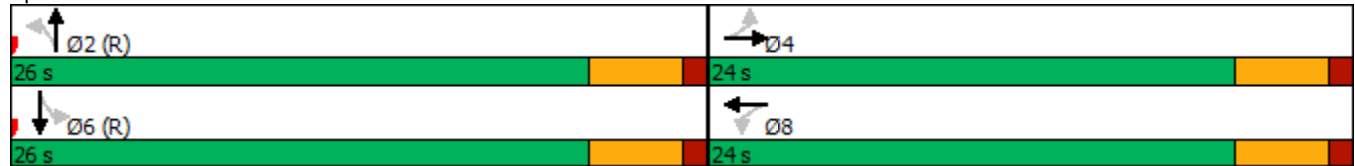
Intersection LOS: A

Intersection Capacity Utilization 42.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.968			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1803	0	1770	3405	0
Flt Permitted		0.942			0.953					0.542		
Satd. Flow (perm)	0	1637	0	0	1649	0	1863	1803	0	1010	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			132			34			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

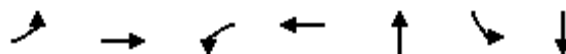
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	64	86	34	99	149	0	239	64	4	247	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	282	0	0	303	0	4	331	0
Intersection Summary												

OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	220	4	227
Future Volume (vph)	21	59	31	91	220	4	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.25		0.39	0.38	0.01	0.22
Control Delay		6.8		7.7	10.3	8.2	7.0
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		6.8		7.7	10.3	8.2	7.0
LOS		A		A	B	A	A
Approach Delay		6.8		7.7	10.3		7.1
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 8.1

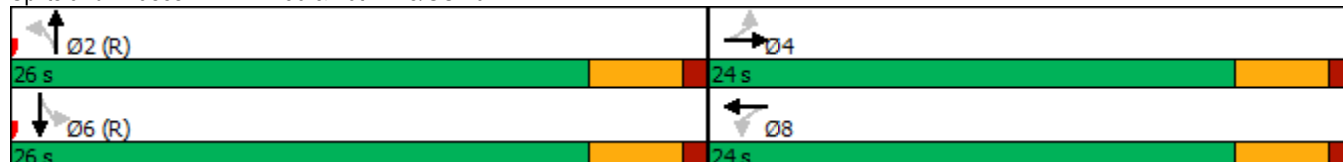
Intersection LOS: A

Intersection Capacity Utilization 42.0%

ICU Level of Service A

Analysis Period (min) 15

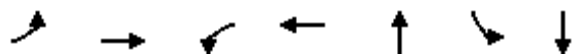
Splits and Phases: 1: IA 136 & 16th Ave/US 20



OPENING YEAR 1D

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed

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Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	173	282	303	4	331
v/c Ratio	0.25	0.39	0.38	0.01	0.22
Control Delay	6.8	7.7	10.3	8.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.7	10.3	8.2	7.0
Queue Length 50th (ft)	16	28	50	1	22
Queue Length 95th (ft)	47	71	96	5	42
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	690	723	794	434	1512
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.39	0.38	0.01	0.22
Intersection Summary					

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	159	0	0	259	0	0	279	0	4	304	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1840	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			18.2			10.5		
Adj Reference Time (s)	0.0			0.0			9.5			15.0		
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1840		120	1740	
Reference Time A (s)	0.0	15.0		0.0	23.2		0.0	18.2		4.0	10.5	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	15.0			23.2			18.2			10.5		
Adj Reference Time (s)	19.5			27.7			22.7			15.0		
Split Option												
Ref Time Combined (s)	0.0	10.9		0.0	17.9		0.0	18.2		0.3	10.5	
Ref Time Seperate (s)	1.4	4.1		2.1	6.3		0.0	14.3		0.3	7.8	
Reference Time (s)	10.9	10.9		17.9	17.9		18.2	18.2		10.5	10.5	
Adj Reference Time (s)	15.4	15.4		22.4	22.4		22.7	22.7		15.0	15.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		32.2									
Permitted Option (s)	27.7		22.7									
Split Option (s)	37.8		37.7									
Minimum (s)	27.7		22.7		50.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	42.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	239	64	4	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	283	321	120	266	342	144	611	164	483	1127	374
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	105	726	822	101	682	878	1049	1421	381	1076	2621	869
Grp Volume(v), veh/h	173	0	0	282	0	0	0	0	303	4	165	166
Grp Sat Flow(s),veh/h/ln	1654	0	0	1661	0	0	1049	0	1802	1076	1777	1714
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.1	2.9	3.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	6.0	0.0	0.0	0.0	0.0	5.8	5.9	2.9	3.0
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.21	1.00		0.51
Lane Grp Cap(c), veh/h	727	0	0	728	0	0	144	0	775	483	764	737
V/C Ratio(X)	0.24	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.39	0.01	0.22	0.22
Avail Cap(c_a), veh/h	727	0	0	728	0	0	144	0	775	483	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	0.0	11.1	0.0	0.0	0.0	0.0	9.8	11.8	9.0	9.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	1.5	0.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	2.1	0.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	11.2	11.8	9.6	9.7
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h		173			282			303			335	
Approach Delay, s/veh		11.1			12.7			11.2			9.7	
Approach LOS		B			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		7.8		5.4		7.9		8.0				
Green Ext Time (p_c), s		1.5		0.8		1.6		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.1								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	64	86	34	99	149	0	239	64	4	247	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	283	321	120	266	342	144	611	164	483	1127	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.1	0.0	0.0	12.7	0.0	0.0	0.0	0.0	11.2	11.8	9.6	9.7
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	A	A
Approach Vol, veh/h	173			282			303			335		
Approach Delay, s/veh	11.1			12.7			11.2			9.7		
Approach LOS	B			B			B			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	7.8			5.4			7.9			8.0		
Green Ext Time (g_e), s	1.5			0.8			1.6			1.3		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1049			105			1076			101		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1421			726			2621			682		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	381			822			869			878		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	173	0	4	0	282
Grp Sat Flow (s), veh/h/ln	0	1049	0	1654	0	1076	0	1661
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	5.9	0.0	6.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1049	0	1150	0	1076	0	1257
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	13.5	0.0	15.7	0.0	16.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.8	0.0	0.0	0.0	9.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.0
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	727	0	483	0	728
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.01	0.00	0.39
Avail Cap (c_a), veh/h	0	144	0	727	0	483	0	728
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.3	0.0	11.8	0.0	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.1	0.0	11.8	0.0	12.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.2	0.0	0.0	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.01	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	165	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	303	0	0	0	166	0	0
Grp Sat Flow (s), veh/h/ln	0	1802	0	0	0	1714	0	0
Q Serve Time (g_s), s	0.0	5.8	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	0.0	0.0	3.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.21	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	775	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.39	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	775	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.8	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.2	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.87	1.90	2.28	2.30
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	173	282	303	335
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.65	2.78	2.43	2.29
Bicycle LOS	C	C	B	B

OPENING YEAR 1D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.925									0.900	
Flt Protected		0.978						0.989				
Satd. Flow (prot)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.978						0.989				
Satd. Flow (perm)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	0	0	0	234	0	0	345	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.9%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.925									0.900	
Flt Protected		0.978						0.989				
Satd. Flow (prot)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.978						0.989				
Satd. Flow (perm)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	59	0	74	0	0	0	50	184	0	0	116	229
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	0	0	0	234	0	0	345	0
Intersection Summary												

OPENING YEAR 1D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

2: IA 136

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	122	0	0	0	0	0	215	0	0	318	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1703	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1419	0	0	1900	0	0	119	0	0	1629	0
Reference Time A (s)	0.0	10.3	0.0	0.0	0.0	0.0	0.0	46.3	0.0	0.0	11.7	0.0
Adj Saturation B (vph)	0	0	0	0	1900	NA	NA	NA	NA	NA	NA	NA
Reference Time B (s)	11.6	16.6	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA
Reference Time (s)	10.3			0.0			46.3			11.7		
Adj Reference Time (s)	14.3			8.0			50.3			15.7		
Split Option												
Ref Time Combined (s)	0.0	8.6	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	11.7	0.0
Ref Time Seperate (s)	3.6	0.0	0.0	0.0	0.0	3.1	5.6	0.0	0.0	0.0	3.9	0.0
Reference Time (s)	8.6	8.6	0.0	0.0	0.0	7.2	7.2	11.7	11.7	11.7	11.7	11.7
Adj Reference Time (s)	12.6	12.6	0.0	0.0	0.0	11.2	11.2	15.7	15.7	15.7	15.7	15.7
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.3		50.3									
Split Option (s)	12.6		26.9									
Minimum (s)	12.6		26.9		39.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	32.9%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D

2: IA 136

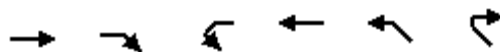
01/15/2025

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	54	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	0	74	0	0	0	50	184	0	0	116	229
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	423	515	173	342	629	92	345	0	0	184	0	0
Stage 1	231	231	-	284	284	-	-	-	-	-	-	-
Stage 2	192	284	-	58	345	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	515	462	840	588	398	947	1211	-	-	1388	-	-
Stage 1	751	712	-	699	675	-	-	-	-	-	-	-
Stage 2	791	675	-	947	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	497	441	840	517	380	947	1211	-	-	1388	-	-
Mov Cap-2 Maneuver	497	441	-	517	380	-	-	-	-	-	-	-
Stage 1	716	712	-	667	644	-	-	-	-	-	-	-
Stage 2	755	644	-	864	635	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12		0		1.8		0					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1211	-	-	643	-	1388	-	-				
HCM Lane V/C Ratio	0.041	-	-	0.206	-	-	-	-				
HCM Control Delay (s)	8.1	0.1	-	12	0	0	-	-				
HCM Lane LOS	A	A	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.8	-	0	-	-				

OPENING YEAR 1D

10: US 20

01/15/2025

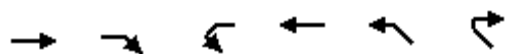


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	120	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 10.1%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1D

10: US 20

01/15/2025



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

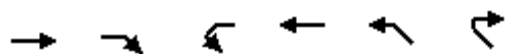
Intersection Summary

Area Type: Other

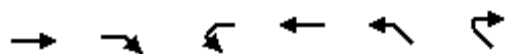
OPENING YEAR 1D

10: US 20

01/15/2025



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	120	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	0	0	0	0
Intersection Summary						

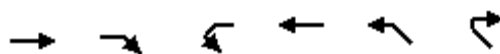


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1D

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Volume (vph)	0	110	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	110	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	8.2	0.0	0.0		0.0
Adj Reference Time (s)	0.0	12.2	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0	0.0		
Right Turns	EBR					
Adj Reference Time (s)	12.2					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.2					
Intersection Summary						
Intersection Capacity Utilization		10.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.955			0.948		0.564			0.607		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1051	1811	0	1131	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	5	95	11	39	15	91	199	46	3	282	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	245	0	3	287	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	
v/c Ratio		0.18			0.07	0.02	0.22	0.33		0.01	0.39	

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		4.3			8.8	1.9	10.6	9.6		8.3	11.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			8.8	1.9	10.6	9.6		8.3	11.4	
LOS		A			A	A	B	A		A	B	
Approach Delay		4.3			7.2			9.9			11.4	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.4

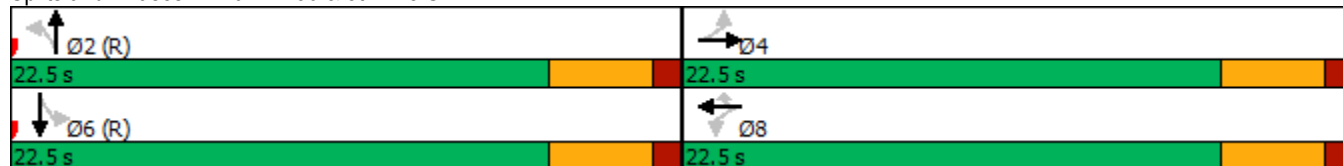
Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.896				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1654	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.955			0.948		0.564			0.607		
Satd. Flow (perm)	0	1594	0	0	1766	1583	1051	1811	0	1131	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95				36		31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	5	95	11	39	15	91	199	46	3	282	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	0	0	50	15	91	245	0	3	287	0
Intersection Summary												

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	183	3	259
Future Volume (vph)	21	5	10	36	14	84	183	3	259
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.18		0.07	0.02	0.22	0.33	0.01	0.39
Control Delay		4.3		8.8	1.9	10.6	9.6	8.3	11.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		8.8	1.9	10.6	9.6	8.3	11.4
LOS		A		A	A	B	A	A	B
Approach Delay		4.3		7.2			9.9		11.4
Approach LOS		A		A			A		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.4

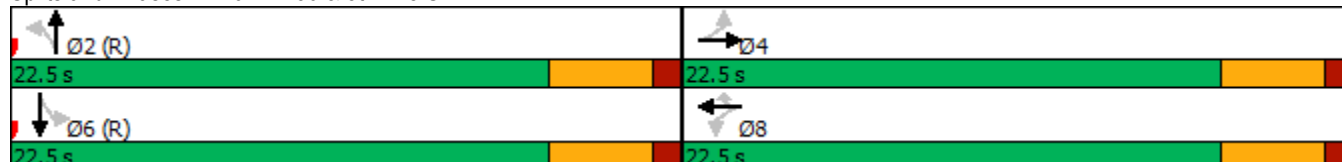
Intersection LOS: A

Intersection Capacity Utilization 43.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	123	50	15	91	245	3	287
v/c Ratio	0.18	0.07	0.02	0.22	0.33	0.01	0.39
Control Delay	4.3	8.8	1.9	10.6	9.6	8.3	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	8.8	1.9	10.6	9.6	8.3	11.4
Queue Length 50th (ft)	4	7	0	15	35	1	49
Queue Length 95th (ft)	26	22	m4	38	74	4	95
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	694	706	654	420	743	452	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.07	0.02	0.22	0.33	0.01	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	113	0	0	46	14	84	225	0	3	264	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1847	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.0			5.6	14.6	0.0	0.2	16.7	0.0
Adj Reference Time (s)	0.0			9.5			10.1	19.1	0.0	9.5	21.2	0.0
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1847	120	1895	0	120	1895	0
Reference Time A (s)	0.0	31.1	0.0	4.2	83.8	14.6	3.0	16.7	0.0	3.0	16.7	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	NA	NA	0
Reference Time B (s)	9.4	16.1	8.7	10.9	NA	NA	NA	NA	9.4	16.1	10.9	8.7
Reference Time (s)	16.1			4.2			83.8			16.7		
Adj Reference Time (s)	20.6			9.5			88.3			21.2		
Split Option												
Ref Time Combined (s)	0.0	8.1	0.0	2.9	5.6	14.6	0.2	16.7	0.0	8.1	0.0	2.9
Ref Time Seperate (s)	1.4	0.4	0.7	2.3	5.6	11.9	0.2	16.4	1.4	0.4	0.7	2.3
Reference Time (s)	8.1	8.1	2.9	2.9	14.6	14.6	16.7	16.7	8.1	8.1	2.9	2.9
Adj Reference Time (s)	12.6	12.6	9.5	9.5	19.1	19.1	21.2	21.2	12.6	12.6	9.5	9.5
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		31.3									
Permitted Option (s)	20.6		88.3									
Split Option (s)	22.1		40.3									
Minimum (s)	20.6		31.3		52.0							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	19.1											
Oncoming Left Ref Time (s)	12.6											
Combined (s)	41.3											
Intersection Summary												
Intersection Capacity Utilization			43.3%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	199	46	3	282	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	76	489	195	608	634	478	588	136	507	733	13
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	171	190	1224	243	1519	1585	1092	1470	340	1135	1832	32
Grp Volume(v), veh/h	123	0	0	50	0	15	91	0	245	3	0	287
Grp Sat Flow(s),veh/h/ln	1584	0	0	1762	0	1585	1092	0	1809	1135	0	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	2.9	0.0	4.2	0.1	0.0	4.9
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.7	0.0	0.3	7.8	0.0	4.2	4.3	0.0	4.9
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.19	1.00		0.02
Lane Grp Cap(c), veh/h	729	0	0	803	0	634	478	0	724	507	0	746
V/C Ratio(X)	0.17	0.00	0.00	0.06	0.00	0.02	0.19	0.00	0.34	0.01	0.00	0.38
Avail Cap(c_a), veh/h	729	0	0	803	0	634	478	0	724	507	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	8.3	0.0	8.2	12.3	0.0	9.4	10.9	0.0	9.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.1	0.9	0.0	1.3	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.1	0.7	0.0	1.6	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.2	0.0	10.6	10.9	0.0	11.1
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		123			65			336			290	
Approach Delay, s/veh		9.3			8.4			11.3			11.1	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		9.8		4.2		6.9		2.7				
Green Ext Time (p_c), s		1.1		0.5		1.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				10.7								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	5	95	11	39	15	91	199	46	3	282	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	163	76	489	195	608	634	478	588	136	507	733	13
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.0	0.0	8.5	0.0	8.2	13.2	0.0	10.6	10.9	0.0	11.1
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	123			65			336			290		
Approach Delay, s/veh	9.3			8.4			11.3			11.1		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.1			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	9.8			4.2			6.9			2.7		
Green Ext Time (g_e), s	1.1			0.5			1.2			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1092			171			1135			243		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1470			190			1832			1519		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	340			1224			32			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	123	0	3	0	50
Grp Sat Flow (s), veh/h/ln	0	1092	0	1584	0	1135	0	1762
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.8	0.0	2.2	0.0	4.3	0.0	0.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1092	0	1371	0	1135	0	1315
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	13.1	0.0	17.3	0.0	13.8	0.0	15.8
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.7
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	478	0	729	0	507	0	803
V/C Ratio (X)	0.00	0.19	0.00	0.17	0.00	0.01	0.00	0.06
Avail Cap (c_a), veh/h	0	478	0	729	0	507	0	803
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.3	0.0	8.8	0.0	10.9	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.5	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.2	0.0	9.3	0.0	10.9	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.6	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.02	0.00	0.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	245	0	0	0	287	0	15
Grp Sat Flow (s), veh/h/ln	0	1809	0	0	0	1865	0	1585
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	4.9	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	0.0	0.0	4.9	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	724	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.34	0.00	0.00	0.00	0.38	0.00	0.02
Avail Cap (c_a), veh/h	0	724	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.4	0.0	0.0	0.0	9.6	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	1.5	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.6	0.0	0.0	0.0	11.1	0.0	8.2
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.0	0.0	1.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	0.0	0.0	1.9	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.06	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.82	1.96	2.16	2.09
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	123	65	336	290
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.31	2.23	2.67	2.41
Bicycle LOS	B	B	C	B

OPENING YEAR 1D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.979			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1751	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1751	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	40	16	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	19	0	0	80
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 14.1% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.979			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1751	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1751	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3

Intersection Summary

Area Type: Other

OPENING YEAR 1D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	61	40	16	3	3	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	19	0	0	80
Intersection Summary						

OPENING YEAR 1D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

OPENING YEAR 1D
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	56	37	15	3	3	71
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	93	0	18	0	0	74
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.93	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1775	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	6.9	0.0		0.0		
Adj Reference Time (s)	10.9	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			118		0	120
Reference Time A (s)			18.3		0.0	73.8
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			1.2		0.0	4.9
Ref Time Seperate (s)			1.0		0.2	4.7
Reference Time (s)			1.2		4.9	4.9
Adj Reference Time (s)			8.0		8.9	8.9
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		8.9	
Minimum (s)	0.0		8.0		8.9	16.9
Right Turns	EBR					
Adj Reference Time (s)	10.9					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	10.9					
Intersection Summary						
Intersection Capacity Utilization		14.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	39	174	18	44	224	5
Future Volume (vph)	39	174	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890		0.905		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1662	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	189	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	231	0	68	0	248	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.3%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890		0.905		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1662	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1662	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

OPENING YEAR 1D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	39	174	18	44	224	5
Future Volume (vph)	39	174	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	42	189	20	48	243	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	231	0	68	0	248	0
Intersection Summary						

OPENING YEAR 1D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

OPENING YEAR 1D

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	39	174	18	44	224	5
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	213	0	62	0	229	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1652	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	232.1		66.7		228.9	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	15.5		4.4		15.3	
Ref Time Seperate (s)	2.8		1.3		14.9	
Reference Time (s)	15.5		4.4		15.3	
Adj Reference Time (s)	19.5		8.4		19.3	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	19.5		8.4		19.3	
Minimum (s)	19.5		8.4		19.3	47.2
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		39.3%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.955		0.995			0.999	
Flt Protected		0.970			0.968		0.954			0.953	
Satd. Flow (prot)	0	1717	0	0	1722	0	1768	0	0	1773	0
Flt Permitted		0.970			0.968		0.954			0.953	
Satd. Flow (perm)	0	1717	0	0	1722	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	0	25	2	0	1	315	13	7	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	67	0	0	3	0	328	0	0	292	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	45.7%					ICU Level of Service A					
Analysis Period (min)	15										

OPENING YEAR 1D

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.950			0.955		0.995			0.999	
Flt Protected		0.970			0.968		0.954			0.953	
Satd. Flow (prot)	0	1717	0	0	1722	0	1768	0	0	1773	0
Flt Permitted		0.970			0.968		0.954			0.953	
Satd. Flow (perm)	0	1717	0	0	1722	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

OPENING YEAR 1D

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	42	0	25	2	0	1	315	13	7	283	2
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	67	0	0	3	0	328	0	0	292	0
Intersection Summary											

OPENING YEAR 1D

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

OPENING YEAR 1D

30: Beltline Rd

01/15/2025

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right	No			No			No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	62	0	0	3	0	302	0	0	268	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1738	0	0	1745	0	1798	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00	
Protected Option Allowed	No			No			No			No	
Reference Time (s)	0.0			0.0			0.0			0.0	
Adj Reference Time (s)	0.0			0.0			0.0			0.0	
Permitted Option											
Adj Saturation A (vph)	0	1521		0	1442		120		0	120	
Reference Time A (s)	0.0	4.9		0.0	0.2		302.3		0.0	267.5	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	10.6	12.3		8.1	8.2		NA		NA	NA	
Reference Time (s)	4.9			0.2							
Adj Reference Time (s)	8.9			8.0							
Split Option											
Ref Time Combined (s)	0.0	4.3		0.0	0.2		20.2		0.0	17.8	
Ref Time Seperate (s)	2.6	0.0		0.1	0.0		19.4		0.4	17.3	
Reference Time (s)	4.3	4.3		0.2	0.2		20.2		17.8	17.8	
Adj Reference Time (s)	8.3	8.3		8.0	8.0		24.2		21.8	21.8	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	8.9		Err		Err						
Split Option (s)	16.3		24.2		21.8						
Minimum (s)	8.9		24.2		21.8		54.9				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization	45.7%			ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.											

OPENING YEAR 1D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.979			0.989	
Flt Protected		0.994			0.997						0.987	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1818	0
Flt Permitted		0.994			0.997						0.987	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1818	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	59	4	12	60	105	0	180	33	88	229	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	213	0	0	346	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 48.8%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.979			0.989	
Flt Protected		0.994			0.997						0.987	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1818	0
Flt Permitted		0.994			0.997						0.987	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1818	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	59	4	12	60	105	0	180	33	88	229	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	72	0	0	177	0	0	213	0	0	346	0
Intersection Summary												

OPENING YEAR 1D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

31: 2nd Ave SE

01/15/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	66	0	0	163	0	0	196	0	0	319	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1856	0	0	1852	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1856		0	378	
Reference Time A (s)	0.0	6.6		0.0	13.3		0.0	12.7		0.0	101.3	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.7	19.3		NA	NA		NA	NA	
Reference Time (s)	6.6			13.3			12.7			101.3		
Adj Reference Time (s)	10.6			17.3			16.7			105.3		
Split Option												
Ref Time Combined (s)	0.0	4.2		0.0	11.3		0.0	12.7		0.0	20.7	
Ref Time Seperate (s)	0.5	3.4		0.7	3.8		0.0	10.7		5.4	13.6	
Reference Time (s)	4.2	4.2		11.3	11.3		12.7	12.7		20.7	20.7	
Adj Reference Time (s)	8.2	8.2		15.3	15.3		16.7	16.7		24.7	24.7	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.3		105.3									
Split Option (s)	23.6		41.3									
Minimum (s)	17.3		41.3		58.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	48.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
31: 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	5.7											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	8	54	4	11	55	97	0	166	30	81	211	27
Future Vol, veh/h	8	54	4	11	55	97	0	166	30	81	211	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	59	4	12	60	105	0	180	33	88	229	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	699	633	244	648	631	197	258	0	0	213	0	0
Stage 1	420	420	-	197	197	-	-	-	-	-	-	-
Stage 2	279	213	-	451	434	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	354	397	795	383	398	844	1307	-	-	1357	-	-
Stage 1	611	589	-	805	738	-	-	-	-	-	-	-
Stage 2	728	726	-	588	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	256	367	795	315	368	844	1307	-	-	1357	-	-
Mov Cap-2 Maneuver	256	367	-	315	368	-	-	-	-	-	-	-
Stage 1	611	544	-	805	738	-	-	-	-	-	-	-
Stage 2	585	726	-	482	537	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	17.5		14.8		0		2					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1307	-	-	545	360	1357	-	-				
HCM Lane V/C Ratio	-	-	-	0.325	0.199	0.065	-	-				
HCM Control Delay (s)	0	-	-	14.8	17.5	7.8	0	-				
HCM Lane LOS	A	-	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	1.4	0.7	0.2	-	-				

OPENING YEAR 1D
38: 2nd Ave SE

01/15/2025

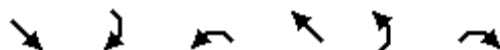


Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.1%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1D

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.935	
Flt Protected				0.993	0.975	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.975	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other

OPENING YEAR 1D

38: 2nd Ave SE

01/15/2025

						
Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	122	26	22	130	14	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	152	27	0
Intersection Summary						

OPENING YEAR 1D

38: 2nd Ave SE

01/15/2025

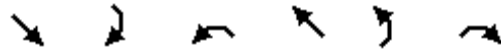


Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

OPENING YEAR 1D

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	112	24	20	120	13	12
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	136	0	0	140	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	8.8		0.0	27.9	26.2	
Adj Saturation B (vph)	1850		NA	NA	NA	
Reference Time B (s)	8.8		NA	NA	NA	
Reference Time (s)	8.8			27.9		
Adj Reference Time (s)	12.8			31.9		
Split Option						
Ref Time Combined (s)	8.8		0.0	8.9	1.7	
Ref Time Seperate (s)	7.3		1.3	7.6	0.9	
Reference Time (s)	8.8		8.9	8.9	1.7	
Adj Reference Time (s)	12.8		12.9	12.9	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	31.9		Err			
Split Option (s)	25.7		8.0			
Minimum (s)	25.7		8.0	33.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
38: 2nd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 1.3

Movement SET SER NWL NWT NEL NER

Lane Configurations

Traffic Vol, veh/h 112 24 20 120 13 12

Future Vol, veh/h 112 24 20 120 13 12

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 122 26 22 130 14 13

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 148 0 309 135

Stage 1 - - - - 135 -

Stage 2 - - - - 174 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1434 - 683 914

Stage 1 - - - - 891 -

Stage 2 - - - - 856 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver - - 1434 - 671 914

Mov Cap-2 Maneuver - - - - 671 -

Stage 1 - - - - 891 -

Stage 2 - - - - 841 -

Approach SE NW NE

HCM Control Delay, s 0 1.1 9.9

HCM LOS A

Minor Lane/Major Mvmt NELn1 NWL NWT SET SER

Capacity (veh/h) 769 1434 - - -

HCM Lane V/C Ratio 0.035 0.015 - - -

HCM Control Delay (s) 9.9 7.5 0 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0.1 0 - - -

OPENING YEAR 1D

49: 6th St SE

01/15/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.936	0.865							
Flt Protected					0.996					0.950			
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Flt Permitted					0.996					0.950			
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Link Speed (mph)					30	30				30			
Link Distance (ft)					480	697				223			
Travel Time (s)					10.9	15.8				5.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)					0	0				0			
Link Offset(ft)					0	0				0			
Crosswalk Width(ft)					16	16				16			
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Sign Control	Stop				Stop				Free				
Intersection Summary													
Area Type:	Other												
Control Type: Unsignalized													
Intersection Capacity Utilization 31.0%													
ICU Level of Service A													
Analysis Period (min) 15													

OPENING YEAR 1D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	49	0	11	62	65	0	0	9	74	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	138	0	0	9	0	0	74	0
Intersection Summary												

OPENING YEAR 1D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	45	0	0	127	0	0	8	0	0	68	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	2.8		0.0	18.6		0.0	0.6		0.0	67.8	
Adj Saturation B (vph)	0	1900		0	0		0	1615		0	0	
Reference Time B (s)	0.0	2.8		8.7	16.7		0.0	0.6		12.5	12.5	
Reference Time (s)	2.8			16.7			0.6			12.5		
Adj Reference Time (s)	8.0			20.7			8.0			16.5		
Split Option												
Ref Time Combined (s)	0.0	2.8		0.0	8.7		0.0	0.6		0.0	4.5	
Ref Time Seperate (s)	0.0	2.8		0.7	3.9		0.0	0.0		4.5	0.0	
Reference Time (s)	2.8	2.8		8.7	8.7		0.6	0.6		4.5	4.5	
Adj Reference Time (s)	8.0	8.0		12.7	12.7		8.0	8.0		8.5	8.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.7		16.5									
Split Option (s)	20.7		16.5									
Minimum (s)	20.7		16.5		37.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D

49: 6th St SE

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	49	0	11	62	65	0	0	9	74	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	216	157	0	178	153	5	0	0	0	9	0	0
Stage 1	148	148	-	5	5	-	-	-	-	-	-	-
Stage 2	68	9	-	173	148	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	740	735	-	784	739	1078	-	-	-	1611	-	-
Stage 1	855	775	-	1017	892	-	-	-	-	-	-	-
Stage 2	942	888	-	829	775	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	626	701	-	-	705	1078	-	-	-	1611	-	-
Mov Cap-2 Maneuver	626	701	-	-	705	-	-	-	-	-	-	-
Stage 1	855	739	-	1017	892	-	-	-	-	-	-	-
Stage 2	824	888	-	739	739	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s					0		7.3					
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	-	-	-	-	-	1611	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	0.046	-	-				
HCM Control Delay (s)	0	-	-	-	-	7.3	0	-				
HCM Lane LOS	A	-	-	-	-	A	A	-				
HCM 95th %tile Q(veh)	-	-	-	-	-	0.1	-	-				

OPENING YEAR 1D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998						0.990				
Flt Protected		0.999			0.999			0.994				
Satd. Flow (prot)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Flt Permitted		0.999			0.999			0.994				
Satd. Flow (perm)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1614			942			1407			1471	
Travel Time (s)		36.7			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	105	2	4	196	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	200	0	0	41	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998						0.990				
Flt Protected		0.999			0.999			0.994				
Satd. Flow (prot)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Flt Permitted		0.999			0.999			0.994				
Satd. Flow (perm)	0	1857	0	0	1861	0	0	1833	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1614			942			1407			1471	
Travel Time (s)		36.7			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	105	2	4	196	0	5	33	3	0	55	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	200	0	0	41	0	0	55	0
Intersection Summary												

OPENING YEAR 1D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	101	0	0	184	0	0	38	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1892	0	0	1898	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1627		0	1599		0	630		0	1900	
Reference Time A (s)	0.0	7.5		0.0	13.8		0.0	7.2		0.0	3.2	
Adj Saturation B (vph)	NA	NA		0	0		0	0		0	1900	
Reference Time B (s)	NA	NA		8.3	19.6		8.3	10.4		0.0	3.2	
Reference Time (s)	7.5			13.8			7.2			3.2		
Adj Reference Time (s)	11.5			17.8			11.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.4		0.0	11.6		0.0	2.4		0.0	3.2	
Ref Time Seperate (s)	0.1	6.1		0.3	11.4		0.3	1.9		0.0	3.2	
Reference Time (s)	6.4	6.4		11.6	11.6		2.4	2.4		3.2	3.2	
Adj Reference Time (s)	10.4	10.4		15.6	15.6		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	17.8		11.2									
Split Option (s)	26.0		16.0									
Minimum (s)	17.8		11.2		29.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Future Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	105	2	4	196	0	5	33	3	0	55	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.6	8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	2%	2%	0%
Vol Thru, %	79%	96%	98%	100%
Vol Right, %	8%	2%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	101	184	51
LT Vol	5	2	4	0
Through Vol	30	97	180	51
RT Vol	3	2	0	0
Lane Flow Rate	41	110	200	55
Geometry Grp	1	1	1	1
Degree of Util (X)	0.054	0.133	0.239	0.072
Departure Headway (Hd)	4.674	4.368	4.301	4.678
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	767	823	840	767
Service Time	2.694	2.383	2.301	2.697
HCM Lane V/C Ratio	0.053	0.134	0.238	0.072
HCM Control Delay	8	8.1	8.6	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.9	0.2

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	97	3	114	277	279	70
Future Volume (vph)	97	3	114	277	279	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.973	
Flt Protected	0.954			0.986		
Satd. Flow (prot)	1770	0	0	1837	1812	0
Flt Permitted	0.954			0.986		
Satd. Flow (perm)	1770	0	0	1837	1812	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	3	124	301	303	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	425	379	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 55.4% ICU Level of Service B

Analysis Period (min) 15

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.996				0.973	
Flt Protected	0.954			0.986		
Satd. Flow (prot)	1770	0	0	1837	1812	0
Flt Permitted	0.954			0.986		
Satd. Flow (perm)	1770	0	0	1837	1812	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	97	3	114	277	279	70
Future Volume (vph)	97	3	114	277	279	70
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	105	3	124	301	303	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	425	379	0
Intersection Summary						

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	97	3	114	277	279	70
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	100	0	0	391	349	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.99	0.97	0.85
Saturated Flow (vph)	1800	0	0	1872	1843	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	120		0	340	1843	
Reference Time A (s)	100.0		0.0	137.9	22.7	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)				137.9	22.7	
Adj Reference Time (s)				141.9	26.7	
Split Option						
Ref Time Combined (s)	6.7		0.0	25.1	22.7	
Ref Time Seperate (s)	6.5		7.6	17.5	18.2	
Reference Time (s)	6.7		25.1	25.1	22.7	
Adj Reference Time (s)	10.7		29.1	29.1	26.7	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		141.9			
Split Option (s)	10.7		55.8			
Minimum (s)	10.7		55.8		66.5	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization			55.4%		ICU Level of Service	B
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
53: IA 136 & 13th Ave SE

01/15/2025

Intersection

Int Delay, s/veh 3.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 97 3 114 277 279 70

Future Vol, veh/h 97 3 114 277 279 70

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 105 3 124 301 303 76

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 890 341 379 0 - 0

Stage 1 341 - - - - -

Stage 2 549 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 313 701 1179 - - -

Stage 1 720 - - - - -

Stage 2 579 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 274 701 1179 - - -

Mov Cap-2 Maneuver 400 - - - - -

Stage 1 629 - - - - -

Stage 2 579 - - - - -

Approach EB NB SB

HCM Control Delay, s 17.1 2.5 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1179 - 405 - -

HCM Lane V/C Ratio 0.105 - 0.268 - -

HCM Control Delay (s) 8.4 0 17.1 - -

HCM Lane LOS A A C - -

HCM 95th %tile Q(veh) 0.4 - 1.1 - -

OPENING YEAR 1D
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 22.0%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.987			0.920			0.968	
Flt Protected		0.995			0.983			0.981			0.968	
Satd. Flow (prot)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Flt Permitted		0.995			0.983			0.981			0.968	
Satd. Flow (perm)	0	1816	0	0	1807	0	0	1681	0	0	1745	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	70	14	38	60	10	22	1	33	14	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	108	0	0	56	0	0	21	0
Intersection Summary												

OPENING YEAR 1D
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	85	0	0	99	0	0	51	0	0	20	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	5.8		0.0	16.4		0.0	3.7		0.0	2.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.5	13.5		10.3	14.5		9.3	11.6		8.9	9.4	
Reference Time (s)	5.8			14.5			3.7			2.2		
Adj Reference Time (s)	9.8			18.5			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	5.5		0.0	6.5		0.0	3.6		0.0	1.4	
Ref Time Seperate (s)	0.5	4.1		2.3	3.5		1.3	0.1		0.9	0.1	
Reference Time (s)	5.5	5.5		6.5	6.5		3.6	3.6		1.4	1.4	
Adj Reference Time (s)	9.5	9.5		10.5	10.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.5		8.0									
Split Option (s)	20.0		16.0									
Minimum (s)	18.5		8.0		26.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	70	14	38	60	10	22	1	33	14	2	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	84	0	0	240	241	77	253	243	65
Stage 1	-	-	-	-	-	-	95	95	-	141	141	-
Stage 2	-	-	-	-	-	-	145	146	-	112	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1531	-	-	1513	-	-	714	660	984	700	659	999
Stage 1	-	-	-	-	-	-	912	816	-	862	780	-
Stage 2	-	-	-	-	-	-	858	776	-	893	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1531	-	-	1513	-	-	691	639	984	659	638	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	691	639	-	659	638	-
Stage 1	-	-	-	-	-	-	907	811	-	857	760	-
Stage 2	-	-	-	-	-	-	829	756	-	857	806	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.6			9.6			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	836	1531	-	-	1513	-	-	718				
HCM Lane V/C Ratio	0.066	0.006	-	-	0.025	-	-	0.03				
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1				

OPENING YEAR 1D
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	0	0	60	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	60	0	0	37	0	0	8	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 13.3%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1D
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	22	0	0	60	0	0	0	37	0	8	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	60	0	0	37	0	0	8	0
Intersection Summary												

OPENING YEAR 1D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	20	0	0	55	0	0	34	0	0	7	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Reference Time (s)	1.3			3.5			2.5			0.4		
Adj Reference Time (s)	8.0			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	3.5		0.0	2.5		0.0	0.4	
Ref Time Seperate (s)	0.0	1.3		0.0	3.5		0.0	0.0		0.0	0.4	
Reference Time (s)	1.3	1.3		3.5	3.5		2.5	2.5		0.4	0.4	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

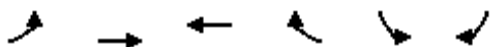
OPENING YEAR 1D
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	22	0	0	60	0	0	0	37	0	8	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	60	0	0	22	0	0	86	82	22	101	82	60
Stage 1	-	-	-	-	-	-	22	22	-	60	60	-
Stage 2	-	-	-	-	-	-	64	60	-	41	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1544	-	-	1593	-	-	900	808	1055	880	808	1005
Stage 1	-	-	-	-	-	-	996	877	-	951	845	-
Stage 2	-	-	-	-	-	-	947	845	-	974	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1544	-	-	1593	-	-	894	808	1055	849	808	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	894	808	-	849	808	-
Stage 1	-	-	-	-	-	-	996	877	-	951	845	-
Stage 2	-	-	-	-	-	-	938	845	-	940	877	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.5			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1055	1544	-	-	1593	-	-	808				
HCM Lane V/C Ratio	0.035	-	-	-	-	-	-	0.009				
HCM Control Delay (s)	8.5	0	-	-	0	-	-	9.5				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

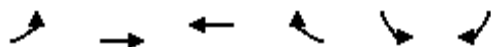
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	57	59	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	93	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	14.7%			ICU Level of Service A		
Analysis Period (min)	15					

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

01/15/2025



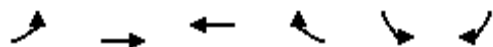
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

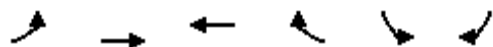
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	2	57	59	34	42	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	93	0	44	0
Intersection Summary						

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

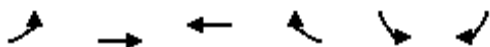
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	2	52	54	31	39	2
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	54	85	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.95	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1796	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1796		120	
Reference Time A (s)	0.0	5.2	5.7		41.1	
Adj Saturation B (vph)	0	0	1796		NA	
Reference Time B (s)	8.1	11.4	5.7		NA	
Reference Time (s)		5.2	5.7			
Adj Reference Time (s)		9.2	9.7			
Split Option						
Ref Time Combined (s)	0.0	3.4	5.7		2.7	
Ref Time Seperate (s)	0.1	3.3	3.6		2.6	
Reference Time (s)	3.4	3.4	5.7		2.7	
Adj Reference Time (s)	8.0	8.0	9.7		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	9.7		Err			
Split Option (s)	17.7		8.0			
Minimum (s)	9.7		8.0		17.7	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		14.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
62: 2nd Ave SE & 7th St SE

01/15/2025

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	54	31	39	2
Future Vol, veh/h	2	52	54	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	57	59	34	42	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	93	0	137
Stage 1	-	-	76
Stage 2	-	-	61
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1501	-	856
Stage 1	-	-	947
Stage 2	-	-	962
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1501	-	855
Mov Cap-2 Maneuver	-	-	855
Stage 1	-	-	946
Stage 2	-	-	962

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1501	-	-	-	861
HCM Lane V/C Ratio	0.001	-	-	-	0.052
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.3%					ICU Level of Service A						
Analysis Period (min)	15											

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1829	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	8	34	3	4	24	4	0	0	0	7	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	32	0	0	0	0	0	14	0
Intersection Summary												

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	41	0	0	30	0	0	0	0	0	12	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	3.8		0.0	2.4		0.0	0.0		0.0	1.1	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.5	10.6		8.3	9.9		0.0	0.0		8.4	8.8	
Reference Time (s)	3.8			2.4			0.0			1.1		
Adj Reference Time (s)	8.0			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.6		0.0	1.9		0.0	0.0		0.0	0.8	
Ref Time Seperate (s)	0.5	2.0		0.3	1.4		0.0	0.0		0.4	0.0	
Reference Time (s)	2.6	2.6		1.9	1.9		0.0	0.0		0.8	0.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.0		8.0		16.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.3%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	34	3	4	24	4	0	0	0	7	0	7
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	32	18	4	36	21	0	7	0	0	0	0	0
Stage 1	18	18	-	0	0	-	-	-	-	-	-	-
Stage 2	14	0	-	36	21	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	876	1080	970	873	-	1614	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	980	878	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	876	1080	939	873	-	1614	-	-	-	-	-
Mov Cap-2 Maneuver	-	876	-	939	873	-	-	-	-	-	-	-
Stage 1	1001	880	-	-	-	-	-	-	-	-	-	-
Stage 2	1006	-	-	940	878	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1614	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

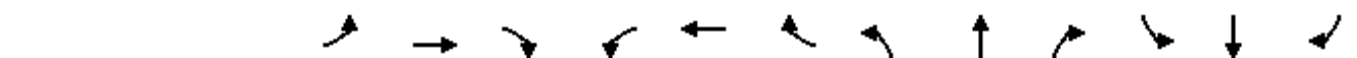
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.993			0.979			0.919	
Flt Protected		0.977			0.994			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1839	0	0	1773	0	0	1686	0
Flt Permitted		0.885			0.976			0.902			0.942	
Satd. Flow (perm)	0	1637	0	0	1805	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	45	5	5	32	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	39	0	0	19	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.14			0.05			0.03			0.08	
Control Delay		9.0			8.3			7.8			5.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			8.3			7.8			5.4	

OPENING YEAR 1D

70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			A			A	
Approach Delay		9.0			8.3			7.8			5.4	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.8

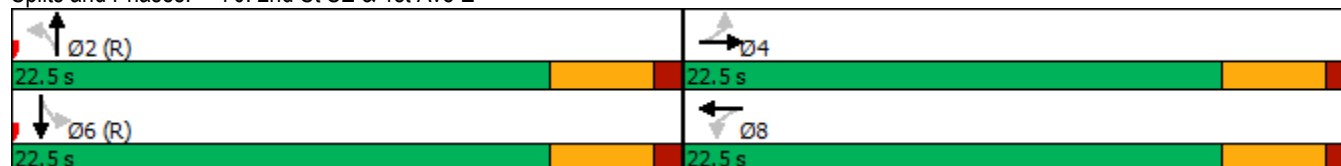
Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.993			0.993			0.979			0.919	
Flt Protected		0.977			0.994			0.972			0.985	
Satd. Flow (prot)	0	1807	0	0	1839	0	0	1773	0	0	1686	0
Flt Permitted		0.885			0.976			0.902			0.942	
Satd. Flow (perm)	0	1637	0	0	1805	0	0	1645	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			3			33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

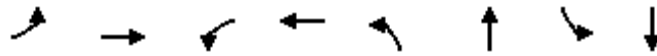
OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	43	45	5	5	32	2	11	5	3	17	5	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	39	0	0	19	0	0	55	0
Intersection Summary												

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	29	10	5	16	5
Future Volume (vph)	40	41	5	29	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.14		0.05		0.03		0.08
Control Delay		9.0		8.3		7.8		5.4
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.0		8.3		7.8		5.4
LOS		A		A		A		A
Approach Delay		9.0		8.3		7.8		5.4
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 7.8

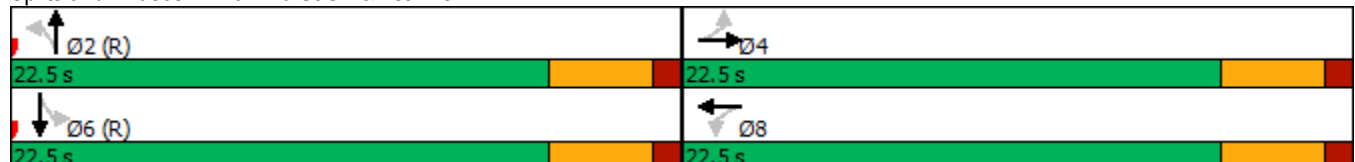
Intersection LOS: A

Intersection Capacity Utilization 23.0%

ICU Level of Service A

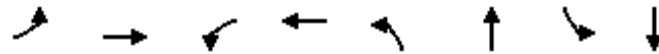
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

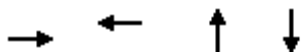
Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	93	39	19	55
v/c Ratio	0.14	0.05	0.03	0.08
Control Delay	9.0	8.3	7.8	5.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.0	8.3	7.8	5.4
Queue Length 50th (ft)	14	6	2	3
Queue Length 95th (ft)	35	18	11	18
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	657	723	659	665
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.05	0.03	0.08
Intersection Summary				

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	86	0	0	36	0	0	18	0	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1871	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	726		0	1820		0	1036		0	1603	
Reference Time A (s)	0.0	14.2		0.0	2.4		0.0	2.1		0.0	3.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	10.7	13.6		8.3	10.3		8.7	9.2		9.1	11.6	
Reference Time (s)	13.6			2.4			2.1			3.8		
Adj Reference Time (s)	18.1			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	5.6		0.0	2.3		0.0	1.2		0.0	3.6	
Ref Time Seperate (s)	2.7	2.6		0.3	1.8		0.7	0.3		1.1	0.4	
Reference Time (s)	5.6	5.6		2.3	2.3		1.2	1.2		3.6	3.6	
Adj Reference Time (s)	10.1	10.1		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.1		9.5									
Split Option (s)	19.6		19.0									
Minimum (s)	18.1		9.5		27.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	32	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	358	35	132	646	37	447	195	97	250	107	379
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	640	896	87	105	1615	93	803	489	242	363	269	948
Grp Volume(v), veh/h	93	0	0	39	0	0	19	0	0	55	0	0
Grp Sat Flow(s),veh/h/ln	1624	0	0	1814	0	0	1533	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	0.46		0.05	0.13		0.05	0.58		0.16	0.31		0.60
Lane Grp Cap(c), veh/h	766	0	0	816	0	0	740	0	0	737	0	0
V/C Ratio(X)	0.12	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	766	0	0	816	0	0	740	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	8.3	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	0.0	8.4	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		93			39			19			55	
Approach Delay, s/veh		8.9			8.4			8.2			8.6	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.3		3.4		2.9		2.6				
Green Ext Time (p_c), s		0.0		0.3		0.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.6								
HCM 6th LOS				A								

OPENING YEAR 1D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	45	5	5	32	2	11	5	3	17	5	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	373	358	35	132	646	37	447	195	97	250	107	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	8.9	0.0	0.0	8.4	0.0	0.0	8.2	0.0	0.0	8.6	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	93			39			19			55		
Approach Delay, s/veh	8.9			8.4			8.2			8.6		
Approach LOS	A			A			A			A		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	8.0			8.0			8.0			8.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.3			5.3			5.5			5.3		
Max Q Clear (g_c+I1), s	2.3			3.4			2.9			2.6		
Green Ext Time (g_e), s	0.0			0.3			0.2			0.1		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	803			640			363			105		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	489			896			269			1615		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	242			87			948			93		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R			L+T+R			L+T+R			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	19	0	93	0	55	0	39
Grp Sat Flow (s), veh/h/ln	0	1533	0	1624	0	1580	0	1814
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1391	0	1396	0	1430	0	1376
Shared LT Sat Flow (s_sh), veh/h/ln	0	1818	0	1828	0	1842	0	1858
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.1	0.0	17.4	0.0	17.7	0.0	16.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.5	0.0	2.3	0.0	4.3	0.0	9.6
Serve Time pre Blk (g_fs), s	0.0	0.3	0.0	1.4	0.0	0.9	0.0	0.6
Prop LT Inside Lane (P_L)	0.00	0.58	0.00	0.46	0.00	0.31	0.00	0.13
Lane Grp Cap (c), veh/h	0	740	0	766	0	737	0	816
V/C Ratio (X)	0.00	0.03	0.00	0.12	0.00	0.07	0.00	0.05
Avail Cap (c_a), veh/h	0	740	0	766	0	737	0	816
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.5	0.0	8.4	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	8.9	0.0	8.6	0.0	8.4
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.05	0.00	0.60	0.00	0.05
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

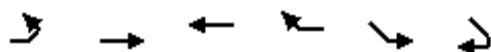
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.78	1.75	1.71	1.75
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	93	39	19	55
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.08	1.99	1.96	2.02
Bicycle LOS	B	B	B	B

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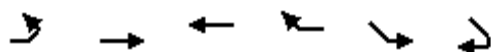


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Traffic Volume (vph)	0	121	0	0	0	0
Future Volume (vph)	0	121	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	132	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	132	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 9.7%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1D

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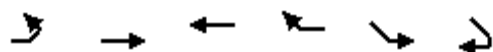
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Intersection Summary						

Area Type: Other

OPENING YEAR 1D

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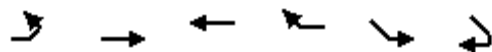


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	121	0	0	0	0
Future Volume (vph)	0	121	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	132	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	132	0	0	0	0
Intersection Summary						

OPENING YEAR 1D

72:

01/15/2025

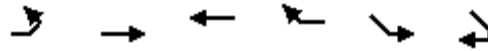


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	121	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	121	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	7.6	0.0	0.0		0.0
Adj Reference Time (s)	0.0	11.6	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	7.6	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	7.6	NA		NA	
Reference Time (s)		7.6	0.0			
Adj Reference Time (s)		11.6	8.0			
Split Option						
Ref Time Combined (s)	0.0	7.6	0.0		0.0	
Ref Time Seperate (s)	0.0	7.6	0.0		0.0	
Reference Time (s)	7.6	7.6	0.0		0.0	
Adj Reference Time (s)	11.6	11.6	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	11.6		NA			
Permitted Option (s)	11.6		Err			
Split Option (s)	11.6		0.0			
Minimum (s)	11.6		0.0	11.6		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		9.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.941			0.930			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	3	10	20	14	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	60	0	0	46	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1D
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.941			0.930			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1705	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	3	10	20	14	26	15	7	24	40	16	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	60	0	0	46	0	0	77	0
Intersection Summary												

OPENING YEAR 1D

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	30	0	0	55	0	0	42	0	0	71	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1760	0	0	1747	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	992			0	1674			0	1567	0	1102
Reference Time A (s)	0.0	3.6			0.0	3.9			0.0	3.2	0.0	7.7
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	9.2	10.0			9.2	11.8			8.9	10.9	10.5	12.8
Reference Time (s)	3.6				3.9				3.2		7.7	
Adj Reference Time (s)	8.0				8.0				8.0		11.7	
Split Option												
Ref Time Combined (s)	0.0	2.0			0.0	3.8			0.0	2.9	0.0	4.8
Ref Time Seperate (s)	1.2	0.2			1.2	0.9			0.9	0.4	2.5	1.0
Reference Time (s)	2.0	2.0			3.8	3.8			2.9	2.9	4.8	4.8
Adj Reference Time (s)	8.0	8.0			8.0	8.0			8.0	8.0	8.8	8.8
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		11.7									
Split Option (s)	16.0		16.8									
Minimum (s)	8.0		11.7		19.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.4%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

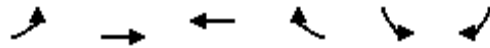
OPENING YEAR 1D
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Future Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	3	10	20	14	26	15	7	24	40	16	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	13	0	0	134	128	8	131	120	27
Stage 1	-	-	-	-	-	-	48	48	-	67	67	-
Stage 2	-	-	-	-	-	-	86	80	-	64	53	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1570	-	-	1606	-	-	838	763	1074	841	770	1048
Stage 1	-	-	-	-	-	-	965	855	-	943	839	-
Stage 2	-	-	-	-	-	-	922	828	-	947	851	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1570	-	-	1606	-	-	792	743	1074	801	750	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	792	743	-	801	750	-
Stage 1	-	-	-	-	-	-	952	844	-	931	828	-
Stage 2	-	-	-	-	-	-	875	817	-	907	840	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.4			2.4			9.2			9.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	908	1570	-	-	1606	-	-	842				
HCM Lane V/C Ratio	0.05	0.012	-	-	0.012	-	-	0.092				
HCM Control Delay (s)	9.2	7.3	0	-	7.3	0	-	9.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.3				

OPENING YEAR 1D
80: Beltline Rd & 8th St NW

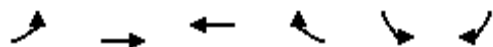
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 20.0%				ICU Level of Service A		
Analysis Period (min) 15						

OPENING YEAR 1D
80: Beltline Rd & 8th St NW

01/15/2025



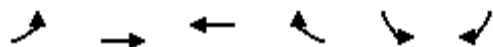
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.900	
Flt Protected		0.990			0.987	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.987	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
80: Beltline Rd & 8th St NW

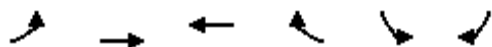
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	14	54	48	27	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	68	75	0	35	0
Intersection Summary						

OPENING YEAR 1D
80: Beltline Rd & 8th St NW

01/15/2025

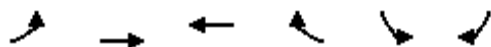


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1D

80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	13	50	44	25	8	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	63	69	0	32	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	16.6	4.6		34.6	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	8.9	12.0	4.6		NA	
Reference Time (s)		12.0	4.6			
Adj Reference Time (s)		16.0	8.6			
Split Option						
Ref Time Combined (s)	0.0	4.0	4.6		2.3	
Ref Time Seperate (s)	0.9	3.2	2.9		0.6	
Reference Time (s)	4.0	4.0	4.6		2.3	
Adj Reference Time (s)	8.0	8.0	8.6		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	16.0		Err			
Split Option (s)	16.6		8.0			
Minimum (s)	16.0		8.0		24.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.0%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
80: Beltline Rd & 8th St NW

01/15/2025

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	54	48	27	9	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	75	0	-	0	144	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1524	-	-	-	849	1003
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1524	-	-	-	841	1003
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	941	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1524	-	-	-	957	
HCM Lane V/C Ratio	0.009	-	-	-	0.036	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

OPENING YEAR 1D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.963			0.939			0.955	
Flt Protected		0.998			0.994			0.978			0.970	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1726	0
Flt Permitted		0.998			0.994			0.978			0.970	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1726	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	24	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	39	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 20.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.963			0.939			0.955	
Flt Protected		0.998			0.994			0.978			0.970	
Satd. Flow (prot)	0	1855	0	0	1783	0	0	1711	0	0	1726	0
Flt Permitted		0.998			0.994			0.978			0.970	
Satd. Flow (perm)	0	1855	0	0	1783	0	0	1711	0	0	1726	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	86	1	13	71	32	5	1	5	24	2	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	116	0	0	11	0	0	39	0
Intersection Summary												

OPENING YEAR 1D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	106	0	0	11	0	0	36	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1750	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1732			0	1010			0	1576	0	1212
Reference Time A (s)	0.0	5.8			0.0	12.6			0.0	0.8	0.0	3.6
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	8.2	13.3			8.8	15.0			8.3	8.8	9.5	10.5
Reference Time (s)	5.8				12.6				0.8		3.6	
Adj Reference Time (s)	9.8				16.6				8.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	5.3			0.0	7.0			0.0	0.8	0.0	2.5
Ref Time Seperate (s)	0.2	5.0			0.8	4.3			0.3	0.1	1.5	0.1
Reference Time (s)	5.3	5.3			7.0	7.0			0.8	0.8	2.5	2.5
Adj Reference Time (s)	9.3	9.3			11.0	11.0			8.0	8.0	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.6		8.0									
Split Option (s)	20.3		16.0									
Minimum (s)	16.6		8.0		24.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	20.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	22	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	22	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	86	1	13	71	32	5	1	5	24	2	13
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	87	0	0	214	222	87	209	206	87
Stage 1	-	-	-	-	-	-	93	93	-	113	113	-
Stage 2	-	-	-	-	-	-	121	129	-	96	93	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1489	-	-	1509	-	-	743	677	971	748	691	971
Stage 1	-	-	-	-	-	-	914	818	-	892	802	-
Stage 2	-	-	-	-	-	-	883	789	-	911	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1489	-	-	1509	-	-	725	670	971	737	683	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	725	670	-	737	683	-
Stage 1	-	-	-	-	-	-	912	816	-	890	795	-
Stage 2	-	-	-	-	-	-	861	782	-	903	816	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.5			9.7		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	813	1489	-	-	1509	-	-	798				
HCM Lane V/C Ratio	0.015	0.002	-	-	0.009	-	-	0.049				
HCM Control Delay (s)	9.5	7.4	0	-	7.4	0	-	9.7				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2				

OPENING YEAR 1D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.975			0.940			0.940	
Flt Protected		0.980			0.999			0.973			0.982	
Satd. Flow (prot)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Flt Permitted		0.980			0.999			0.973			0.982	
Satd. Flow (perm)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	3	12	1	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	53	0	0	36	0	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 16.8%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.975			0.940			0.940	
Flt Protected		0.980			0.999			0.973			0.982	
Satd. Flow (prot)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Flt Permitted		0.980			0.999			0.973			0.982	
Satd. Flow (perm)	0	1707	0	0	1814	0	0	1704	0	0	1719	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	3	12	1	42	10	20	0	16	13	7	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	53	0	0	36	0	0	36	0
Intersection Summary												

OPENING YEAR 1D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

96: 5th St NW & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	23	0	0	49	0	0	33	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1729	0	0	1846	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	339		0	1838		0	1099		0	1582	
Reference Time A (s)	0.0	8.1		0.0	3.2		0.0	3.6		0.0	2.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.6	9.6		8.1	11.2		9.2	10.3		8.8	10.3	
Reference Time (s)	8.1			3.2			3.6			2.5		
Adj Reference Time (s)	12.1			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.6		0.0	3.2		0.0	2.3		0.0	2.3	
Ref Time Seperate (s)	0.6	0.2		0.1	2.5		1.2	0.0		0.8	0.4	
Reference Time (s)	1.6	1.6		3.2	3.2		2.3	2.3		2.3	2.3	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	12.1		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	12.1		8.0		20.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.8%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

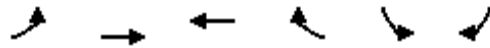
OPENING YEAR 1D
96: 5th St NW & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	3	12	1	42	10	20	0	16	13	7	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	52	0	0	15	0	0	90	83	9	86	84	47
Stage 1	-	-	-	-	-	-	29	29	-	49	49	-
Stage 2	-	-	-	-	-	-	61	54	-	37	35	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1554	-	-	1603	-	-	895	807	1073	900	806	1022
Stage 1	-	-	-	-	-	-	988	871	-	964	854	-
Stage 2	-	-	-	-	-	-	950	850	-	978	866	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1554	-	-	1603	-	-	871	801	1073	882	800	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	871	801	-	882	800	-
Stage 1	-	-	-	-	-	-	982	866	-	958	853	-
Stage 2	-	-	-	-	-	-	927	849	-	957	861	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.1			8.9			9.1		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	953	1554	-	-	1603	-	-	922				
HCM Lane V/C Ratio	0.038	0.006	-	-	0.001	-	-	0.039				
HCM Control Delay (s)	8.9	7.3	0	-	7.2	0	-	9.1				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1D
101: 1st Ave E & Beltline Rd

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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	78	75	12	13	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	136	87	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.1% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1D
101: 1st Ave E & Beltline Rd

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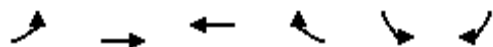
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
101: 1st Ave E & Beltline Rd

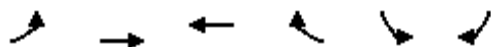
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	58	78	75	12	13	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	136	87	0	73	0
Intersection Summary						

OPENING YEAR 1D
101: 1st Ave E & Beltline Rd

01/15/2025

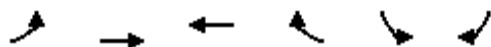


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

OPENING YEAR 1D

101: 1st Ave E & Beltline Rd

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	53	72	69	11	12	55
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	125	80	0	67	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.98	0.85	0.87	0.85
Saturated Flow (vph)	0	1860	1861	0	1651	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	245	1861		110	
Reference Time A (s)	0.0	61.2	5.2		73.0	
Adj Saturation B (vph)	0	0	1861		NA	
Reference Time B (s)	11.5	16.1	5.2		NA	
Reference Time (s)		16.1	5.2			
Adj Reference Time (s)		20.1	9.2			
Split Option						
Ref Time Combined (s)	0.0	8.1	5.2		4.9	
Ref Time Seperate (s)	3.5	4.5	4.4		0.9	
Reference Time (s)	8.1	8.1	5.2		4.9	
Adj Reference Time (s)	12.1	12.1	9.2		8.9	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	20.1		Err			
Split Option (s)	21.2		8.9			
Minimum (s)	20.1		8.9		28.9	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		24.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
101: 1st Ave E & Beltline Rd

01/15/2025

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	72	69	11	12	55
Future Vol, veh/h	53	72	69	11	12	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	78	75	12	13	60
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	87	0	-	0	275	81
Stage 1	-	-	-	-	81	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1509	-	-	-	715	979
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	686	979
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	839	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		9.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1509	-	-	-	909	
HCM Lane V/C Ratio	0.038	-	-	-	0.08	
HCM Control Delay (s)	7.5	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.966			0.919			0.993	
Flt Protected		0.992			0.968			0.998			0.971	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Flt Permitted		0.992			0.968			0.998			0.971	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 27.4%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.966			0.919			0.993	
Flt Protected		0.992			0.968			0.998			0.971	
Satd. Flow (prot)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Flt Permitted		0.992			0.968			0.998			0.971	
Satd. Flow (perm)	0	1744	0	0	1742	0	0	1708	0	0	1796	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	5	5	71	8	27	4	46	74	23	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	0	106	0	0	124	0	0	38	0
Intersection Summary												

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	12	0	0	97	0	0	114	0	0	35	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1827	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1802		0	579		0	1737		0	289	
Reference Time A (s)	0.0	0.8		0.0	20.1		0.0	7.9		0.0	14.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.1	8.8		12.3	14.6		8.3	15.9		9.4	10.3	
Reference Time (s)	0.8			14.6			7.9			10.3		
Adj Reference Time (s)	8.0			18.6			11.9			14.3		
Split Option												
Ref Time Combined (s)	0.0	0.8		0.0	6.6		0.0	7.9		0.0	2.3	
Ref Time Seperate (s)	0.1	0.3		4.3	0.5		0.3	2.9		1.4	0.8	
Reference Time (s)	0.8	0.8		6.6	6.6		7.9	7.9		2.3	2.3	
Adj Reference Time (s)	8.0	8.0		10.6	10.6		11.9	11.9		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.6		14.3									
Split Option (s)	18.6		19.9									
Minimum (s)	18.6		14.3		32.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
102: 3rd St SW & 3rd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	5	5	71	8	27	4	46	74	23	13	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	169	188	14	156	152	83	15	0	0	120	0	0
Stage 1	60	60	-	91	91	-	-	-	-	-	-	-
Stage 2	109	128	-	65	61	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	795	707	1066	810	740	976	1603	-	-	1468	-	-
Stage 1	951	845	-	916	820	-	-	-	-	-	-	-
Stage 2	896	790	-	946	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	755	694	1066	790	726	976	1603	-	-	1468	-	-
Mov Cap-2 Maneuver	755	694	-	790	726	-	-	-	-	-	-	-
Stage 1	948	831	-	913	818	-	-	-	-	-	-	-
Stage 2	860	788	-	920	830	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10	0.3	4.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1603	-	-	825 825	1468	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016 0.128	0.016	-	-
HCM Control Delay (s)	7.3	0	-	9.4 10	7.5	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.4	0	-	-

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	45	62	32	24	58
Future Volume (vph)	53	45	62	32	24	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.938				0.904	
Flt Protected	0.974			0.968		
Satd. Flow (prot)	1702	0	0	1803	1684	0
Flt Permitted	0.974			0.968		
Satd. Flow (perm)	1702	0	0	1803	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	49	67	35	26	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	102	89	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 24.1% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.938				0.904	
Flt Protected	0.974			0.968		
Satd. Flow (prot)	1702	0	0	1803	1684	0
Flt Permitted	0.974			0.968		
Satd. Flow (perm)	1702	0	0	1803	1684	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	45	62	32	24	58
Future Volume (vph)	53	45	62	32	24	58
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	58	49	67	35	26	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	102	89	0
Intersection Summary						

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Volume (vph)	53	45	62	32	24	58
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	98	0	0	94	82	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.91	0.85	0.95	0.97	0.89	0.85
Saturated Flow (vph)	1721	0	0	1837	1698	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	115		0	166	1698	
Reference Time A (s)	102.5		0.0	67.8	5.8	
Adj Saturation B (vph)	NA		0	0	1698	
Reference Time B (s)	NA		12.1	14.1	5.8	
Reference Time (s)				14.1	5.8	
Adj Reference Time (s)				18.1	9.8	
Split Option						
Ref Time Combined (s)	6.8		0.0	6.1	5.8	
Ref Time Seperate (s)	3.7		4.1	2.0	1.7	
Reference Time (s)	6.8		6.1	6.1	5.8	
Adj Reference Time (s)	10.8		10.1	10.1	9.8	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		18.1			
Split Option (s)	10.8		19.9			
Minimum (s)	10.8		18.1		29.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		24.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 5.2

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 53 45 62 32 24 58

Future Vol, veh/h 53 45 62 32 24 58

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 58 49 67 35 26 63

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 227 58 89 0 - 0

Stage 1 58 - - - - -

Stage 2 169 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 761 1008 1506 - - -

Stage 1 965 - - - - -

Stage 2 861 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 727 1008 1506 - - -

Mov Cap-2 Maneuver 727 - - - - -

Stage 1 922 - - - - -

Stage 2 861 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.9 4.9 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1506 - 834 - -

HCM Lane V/C Ratio 0.045 - 0.128 - -

HCM Control Delay (s) 7.5 0 9.9 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0.1 - 0.4 - -

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.998			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	65	34	27	57	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	85	0	0	63	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 21.5%	ICU Level of Service A											
Analysis Period (min) 15												

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.954			0.998			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1829	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	65	34	27	57	1	26	0	37	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	85	0	0	63	0	0	2	0
Intersection Summary												

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1	
Pedestrians													
Ped Button													
Pedestrian Timing (s)													
Free Right	No			No			No			No			
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120	
Volume Combined (vph)	0	91	0	0	78	0	0	58	0	0	2	0	
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.89	0.85	0.95	0.90	0.85	
Saturated Flow (vph)	0	1803	0	0	1866	0	0	1697	0	0	1714	0	
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No			
Reference Time (s)	0.0			0.0			0.0			0.0			
Adj Reference Time (s)	0.0			0.0			0.0			0.0			
Permitted Option													
Adj Saturation A (vph)	0	1803		0	313		0	1443		0	1233		
Reference Time A (s)	0.0	6.1		0.0	29.9		0.0	4.8		0.0	0.2		
Adj Saturation B (vph)	0	1803		0	0		0	0		0	0		
Reference Time B (s)	0.0	6.1		9.7	13.0		9.6	12.1		8.1	8.1		
Reference Time (s)	6.1				13.0			4.8			0.2		
Adj Reference Time (s)	10.1				17.0			8.8			8.0		
Split Option													
Ref Time Combined (s)	0.0	6.1		0.0	5.0		0.0	4.1		0.0	0.1		
Ref Time Seperate (s)	0.0	4.0		1.7	3.3		1.6	0.0		0.1	0.0		
Reference Time (s)	6.1	6.1		5.0	5.0		4.1	4.1		0.1	0.1		
Adj Reference Time (s)	10.1	10.1		9.0	9.0		8.1	8.1		8.0	8.0		
Summary	EB WB		NB SB		Combined								
Protected Option (s)	NA		NA										
Permitted Option (s)	17.0		8.8										
Split Option (s)	19.1		16.1										
Minimum (s)	17.0		8.8		25.8								
Right Turns													
Adj Reference Time (s)													
Cross Thru Ref Time (s)													
Oncoming Left Ref Time (s)													
Combined (s)													
Intersection Summary													
Intersection Capacity Utilization	21.5%			ICU Level of Service			A						
Reference Times and Phasing Options do not represent an optimized timing plan.													

OPENING YEAR 1D
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	34	27	57	1	26	0	37	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	99	0	0	194	194	82	213	211	58
Stage 1	-	-	-	-	-	-	82	82	-	112	112	-
Stage 2	-	-	-	-	-	-	112	112	-	101	99	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1494	-	-	765	701	978	744	686	1008
Stage 1	-	-	-	-	-	-	926	827	-	893	803	-
Stage 2	-	-	-	-	-	-	893	803	-	905	813	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1546	-	-	1494	-	-	753	688	978	705	673	1008
Mov Cap-2 Maneuver	-	-	-	-	-	-	753	688	-	705	673	-
Stage 1	-	-	-	-	-	-	926	827	-	893	788	-
Stage 2	-	-	-	-	-	-	875	788	-	871	813	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.5			9.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	870	1546	-	-	1494	-	-	830				
HCM Lane V/C Ratio	0.072	-	-	-	0.018	-	-	0.003				
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	9.3				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0				

OPENING YEAR 1D

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986						0.865			0.894	
Flt Protected		0.984									0.989	
Satd. Flow (prot)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.984									0.989	
Satd. Flow (perm)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	17	3	0	50	0	0	0	3	8	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	50	0	0	3	0	0	37	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986						0.865			0.894	
Flt Protected		0.984									0.989	
Satd. Flow (prot)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.984									0.989	
Satd. Flow (perm)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	17	3	0	50	0	0	0	3	8	0	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	50	0	0	3	0	0	37	0
Intersection Summary												

OPENING YEAR 1D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	28	0	0	46	0	0	3	0	0	34	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	0.87	0.85
Saturated Flow (vph)	0	1839	0	0	1900	0	0	1615	0	0	1656	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	308		0	1900		0	1615		0	401	
Reference Time A (s)	0.0	10.9		0.0	2.9		0.0	0.2		0.0	10.2	
Adj Saturation B (vph)	0	0		0	1900		0	1615		0	0	
Reference Time B (s)	8.6	9.8		0.0	2.9		0.0	0.2		8.5	10.5	
Reference Time (s)	9.8			2.9			0.2			10.2		
Adj Reference Time (s)	13.8			8.0			8.0			14.2		
Split Option												
Ref Time Combined (s)	0.0	1.8		0.0	2.9		0.0	0.2		0.0	2.5	
Ref Time Seperate (s)	0.6	1.0		0.0	2.9		0.0	0.0		0.5	0.0	
Reference Time (s)	1.8	1.8		2.9	2.9		0.2	0.2		2.5	2.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.8		14.2									
Split Option (s)	16.0		16.0									
Minimum (s)	13.8		14.2		28.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.3%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	16	3	0	46	0	0	0	3	7	0	27
Future Vol, veh/h	9	16	3	0	46	0	0	0	3	7	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	17	3	0	50	0	0	0	3	8	0	29
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	50	0	0	20	0	0	104	89	19	90	90	50
Stage 1	-	-	-	-	-	-	39	39	-	50	50	-
Stage 2	-	-	-	-	-	-	65	50	-	40	40	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1557	-	-	1596	-	-	876	801	1059	895	800	1018
Stage 1	-	-	-	-	-	-	976	862	-	963	853	-
Stage 2	-	-	-	-	-	-	946	853	-	975	862	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1596	-	-	847	796	1059	888	795	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	847	796	-	888	795	-
Stage 1	-	-	-	-	-	-	970	857	-	957	853	-
Stage 2	-	-	-	-	-	-	919	853	-	966	857	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0			8.4			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1059	1557	-	-	1596	-	-	988				
HCM Lane V/C Ratio	0.003	0.006	-	-	-	-	-	0.037				
HCM Control Delay (s)	8.4	7.3	0	-	0	-	-	8.8				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

OPENING YEAR 1D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.892											
Flt Protected					0.950		0.995					
Satd. Flow (prot)	0	0	0	0	1770	0	0	1853	0	0	1662	0
Flt Permitted					0.950		0.995					
Satd. Flow (perm)	0	0	0	0	1770	0	0	1853	0	0	1662	0
Link Speed (mph)	30				60		30		30			
Link Distance (ft)	364				4320		808		1371			
Travel Time (s)	8.3				49.1		18.4		31.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	13	0	0	14	115	0	0	24	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	13	0	0	129	0	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0		0			
Link Offset(ft)	0				0		0		0			
Crosswalk Width(ft)	16				16		16		16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop			Stop			Free			Free		
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 23.0%												
ICU Level of Service A												
Analysis Period (min) 15												

OPENING YEAR 1D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt												0.892
Flt Protected					0.950				0.995			
Satd. Flow (prot)	0	0	0	0	1770	0	0	1853	0	0	1662	0
Flt Permitted					0.950				0.995			
Satd. Flow (perm)	0	0	0	0	1770	0	0	1853	0	0	1662	0
Link Speed (mph)					30				30			
Link Distance (ft)					364				4320			
Travel Time (s)					8.3				49.1			
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	13	0	0	14	115	0	0	24	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	13	0	0	129	0	0	122	0
Intersection Summary												

OPENING YEAR 1D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	12	0	0	119	0	0	112	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.99	0.85	0.95	0.88	0.85
Saturated Flow (vph)	0	0	0	0	1805	0	0	1890	0	0	1671	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	120		0	722		0	1671	
Reference Time A (s)	0.0	0.0		0.0	12.0		0.0	19.8		0.0	8.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	1671	
Reference Time B (s)	0.0	0.0		8.8	8.8		8.9	15.6		0.0	8.0	
Reference Time (s)	0.0			8.8			15.6			8.0		
Adj Reference Time (s)	8.0			12.8			19.6			12.0		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	0.8		0.0	7.6		0.0	8.0	
Ref Time Seperate (s)	0.0	0.0		0.8	0.0		0.9	6.7		0.0	1.6	
Reference Time (s)	0.0	0.0		0.8	0.8		7.6	7.6		8.0	8.0	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		11.6	11.6		12.0	12.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	12.8		19.6									
Split Option (s)	8.0		23.6									
Minimum (s)	8.0		19.6		27.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
111: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	0	13	106	0	0	22	90
Future Vol, veh/h	0	0	0	12	0	0	13	106	0	0	22	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	0	0	14	115	0	0	24	98
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				216	265	115	122	0	-	-	-	0
Stage 1				143	143	-	-	-	-	-	-	-
Stage 2				73	122	-	-	-	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				772	640	937	1465	-	0	0	-	-
Stage 1				884	779	-	-	-	0	0	-	-
Stage 2				950	795	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				764	0	937	1465	-	-	-	-	-
Mov Cap-2 Maneuver				764	0	-	-	-	-	-	-	-
Stage 1				875	0	-	-	-	-	-	-	-
Stage 2				950	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				9.8		0.8		0				
HCM LOS				A								
Minor Lane/Major Mvmt	NBL	NBT	WBLn1	SBT	SBR							
Capacity (veh/h)	1465	-	764	-	-							
HCM Lane V/C Ratio	0.01	-	0.017	-	-							
HCM Control Delay (s)	7.5	0	9.8	-	-							
HCM Lane LOS	A	A	A	-	-							
HCM 95th %tile Q(veh)	0	-	0.1	-	-							

OPENING YEAR 1D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	17	142	9	20	58
Future Volume (vph)	32	17	142	9	20	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.954		0.992			
Flt Protected	0.968					0.987
Satd. Flow (prot)	1720	0	1848	0	0	1839
Flt Permitted	0.968					0.987
Satd. Flow (perm)	1720	0	1848	0	0	1839
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	18	154	10	22	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	164	0	0	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.5% ICU Level of Service A

Analysis Period (min) 15

OPENING YEAR 1D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.954		0.992			
Flt Protected	0.968					0.987
Satd. Flow (prot)	1720	0	1848	0	0	1839
Flt Permitted	0.968					0.987
Satd. Flow (perm)	1720	0	1848	0	0	1839
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other

OPENING YEAR 1D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	32	17	142	9	20	58
Future Volume (vph)	32	17	142	9	20	58
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	35	18	154	10	22	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	164	0	0	85
Intersection Summary						

OPENING YEAR 1D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1D

114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	32	17	142	9	20	58
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	49	0	151	0	0	78
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.99	0.85	0.95	0.99
Saturated Flow (vph)	1742	0	1883	0	0	1876
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	116		1883		0	380
Reference Time A (s)	50.6		9.6		0.0	24.7
Adj Saturation B (vph)	NA		1883		NA	NA
Reference Time B (s)	NA		9.6		NA	NA
Reference Time (s)			9.6			24.7
Adj Reference Time (s)			13.6			28.7
Split Option						
Ref Time Combined (s)	3.4		9.6		0.0	5.0
Ref Time Seperate (s)	2.2		9.0		1.3	3.7
Reference Time (s)	3.4		9.6		5.0	5.0
Adj Reference Time (s)	8.0		13.6		9.0	9.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		28.7			
Split Option (s)	8.0		22.6			
Minimum (s)	8.0		22.6		30.6	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		25.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	17	142	9	20	58
Future Vol, veh/h	32	17	142	9	20	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	18	154	10	22	63

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	266 159	0	0 164 0
Stage 1	159	-	- - -
Stage 2	107	-	- - -
Critical Hdwy	6.42 6.22	-	- 4.12 -
Critical Hdwy Stg 1	5.42	-	- - -
Critical Hdwy Stg 2	5.42	-	- - -
Follow-up Hdwy	3.518 3.318	-	- 2.218 -
Pot Cap-1 Maneuver	723 886	-	- 1414 -
Stage 1	870	-	- - -
Stage 2	917	-	- - -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	711 886	-	- 1414 -
Mov Cap-2 Maneuver	711	-	- - -
Stage 1	870	-	- - -
Stage 2	902	-	- - -

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 763	1414	-
HCM Lane V/C Ratio	-	- 0.07	0.015	-
HCM Control Delay (s)	-	- 10.1	7.6	0
HCM Lane LOS	-	- B	A	A
HCM 95th %tile Q(veh)	-	- 0.2	0	-

OPENING YEAR 1D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995						0.944				
Flt Protected		0.954									0.955	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1779	0
Flt Permitted		0.954									0.955	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1779	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	39	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	41	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.0%						ICU Level of Service A					
Analysis Period (min)	15											

OPENING YEAR 1D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995						0.944				
Flt Protected		0.954									0.955	
Satd. Flow (prot)	0	1768	0	0	0	0	0	1758	0	0	1779	0
Flt Permitted		0.954									0.955	
Satd. Flow (perm)	0	1768	0	0	0	0	0	1758	0	0	1779	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	123	0	5	0	0	0	0	7	5	39	2	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	0	0	12	0	0	41	0
Intersection Summary												

OPENING YEAR 1D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	118	0	0	0	0	0	11	0	0	38	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1810	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	123			0	0			0	1770	0	125
Reference Time A (s)	0.0	114.9			0.0	0.0			0.0	0.7	0.0	36.5
Adj Saturation B (vph)	0	0			0	0			0	1770	0	0
Reference Time B (s)	15.5	15.9			0.0	0.0			0.0	0.7	10.4	10.5
Reference Time (s)	15.9				0.0				0.7		10.5	
Adj Reference Time (s)	19.9				8.0				8.0		14.5	
Split Option												
Ref Time Combined (s)	0.0	7.9			0.0	0.0			0.0	0.7	0.0	2.5
Ref Time Seperate (s)	7.5	0.0			0.0	0.0			0.0	0.4	2.4	0.1
Reference Time (s)	7.9	7.9			0.0	0.0			0.7	0.7	2.5	2.5
Adj Reference Time (s)	11.9	11.9			0.0	0.0			8.0	8.0	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.9		14.5									
Split Option (s)	11.9		16.0									
Minimum (s)	11.9		14.5		26.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.0%		ICU Level of Service				A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
118: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	36	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	36	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	123	0	5	0	0	0	0	7	5	39	2	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	90	92	2	-	0	0	12	0	0
Stage 1	80	80	-	-	-	-	-	-	-
Stage 2	10	12	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	910	798	1082	0	-	-	1607	-	0
Stage 1	943	828	-	0	-	-	-	-	0
Stage 2	1013	886	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	888	0	1082	-	-	-	1607	-	-
Mov Cap-2 Maneuver	888	0	-	-	-	-	-	-	-
Stage 1	943	0	-	-	-	-	-	-	-
Stage 2	989	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0	6.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	895	1607	-
HCM Lane V/C Ratio	-	-	0.143	0.024	-
HCM Control Delay (s)	-	-	9.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.967			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	3	4	1	54	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	73	0	0	24	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	16.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.967			0.977			0.983	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1799	0	0	1762	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	3	4	1	54	18	16	4	4	4	10	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	73	0	0	24	0	0	16	0
Intersection Summary												

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	68	0	0	23	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1827	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	244			0	1830			0	829		
Reference Time A (s)	0.0	7.4			0.0	4.5			0.0	3.3		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	8.5	9.0			8.1	12.5			9.0	9.5		
Reference Time (s)	7.4				4.5				3.3			
Adj Reference Time (s)	11.4				8.5				8.0			
Split Option												
Ref Time Combined (s)	0.0	1.0			0.0	4.5			0.0	1.5		
Ref Time Seperate (s)	0.5	0.2			0.1	3.3			1.0	0.3		
Reference Time (s)	1.0	1.0			4.5	4.5			1.5	1.5		
Adj Reference Time (s)	8.0	8.0			8.5	8.5			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.4		8.0									
Split Option (s)	16.5		16.0									
Minimum (s)	11.4		8.0		19.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	16.2%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	3	4	1	54	18	16	4	4	4	10	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	7	0	0	94	97	5	92	90	63
Stage 1	-	-	-	-	-	-	23	23	-	65	65	-
Stage 2	-	-	-	-	-	-	71	74	-	27	25	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1614	-	-	889	793	1078	892	800	1002
Stage 1	-	-	-	-	-	-	995	876	-	946	841	-
Stage 2	-	-	-	-	-	-	939	833	-	990	874	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1614	-	-	874	787	1078	880	794	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	787	-	880	794	-
Stage 1	-	-	-	-	-	-	989	871	-	940	840	-
Stage 2	-	-	-	-	-	-	925	832	-	975	869	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.9			0.1			9.2			9.4		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	886	1528	-	-	1614	-	-	839				
HCM Lane V/C Ratio	0.028	0.006	-	-	0.001	-	-	0.019				
HCM Control Delay (s)	9.2	7.4	0	-	7.2	0	-	9.4				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.975			0.932			0.972	
Flt Protected		0.978			0.997			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.997			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	10	1	12	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	16	0	0	32	0	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.972			0.975			0.932			0.972	
Flt Protected		0.978			0.997			0.989			0.972	
Satd. Flow (prot)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.997			0.989			0.972	
Satd. Flow (perm)	0	1771	0	0	1811	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	22	16	10	1	12	3	7	9	16	11	4	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	16	0	0	32	0	0	19	0
Intersection Summary												

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	44	0	0	15	0	0	29	0	0	18	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1837	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	485		0	1822		0	1701		0	785	
Reference Time A (s)	0.0	10.9		0.0	1.0		0.0	2.0		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.3	10.9		8.1	9.0		8.4	10.0		8.7	9.2	
Reference Time (s)	10.9			1.0			2.0			2.8		
Adj Reference Time (s)	14.9			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	2.9		0.0	1.0		0.0	2.0		0.0	1.2	
Ref Time Seperate (s)	1.3	1.0		0.1	0.7		0.4	0.6		0.7	0.3	
Reference Time (s)	2.9	2.9		1.0	1.0		2.0	2.0		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.9		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	14.9		8.0		22.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.1%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	16	10	1	12	3	7	9	16	11	4	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	7%	56%
Vol Thru, %	28%	34%	73%	22%
Vol Right, %	52%	20%	20%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	15	18
LT Vol	6	20	1	10
Through Vol	8	15	11	4
RT Vol	15	9	3	4
Lane Flow Rate	32	48	16	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.033	0.053	0.018	0.022
Departure Headway (Hd)	3.791	4.002	3.952	4.047
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	943	895	905	883
Service Time	1.822	2.025	1.98	2.079
HCM Lane V/C Ratio	0.034	0.054	0.018	0.023
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

OPENING YEAR 1D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.4%											
Analysis Period (min)	15											
ICU Level of Service A												

OPENING YEAR 1D
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.971			0.963			0.994	
Satd. Flow (prot)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Flt Permitted		0.991			0.971			0.963			0.994	
Satd. Flow (perm)	0	1724	0	0	1809	0	0	1758	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	33	49	3	2	0	57	7	11	2	14	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	5	0	0	75	0	0	16	0
Intersection Summary												

OPENING YEAR 1D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	92	0	0	5	0	0	68	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1745		0	710		0	451		0	1953	
Reference Time A (s)	0.0	6.3		0.0	0.8		0.0	18.1		0.0	0.9	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.1	14.3		8.2	8.3		11.5	12.6		8.1	9.0	
Reference Time (s)	6.3			0.8			12.6			0.9		
Adj Reference Time (s)	10.3			8.0			16.6			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.3		0.0	0.3		0.0	4.6		0.0	1.0	
Ref Time Seperate (s)	1.1	2.1		0.2	0.1		3.5	0.4		0.1	0.8	
Reference Time (s)	6.3	6.3		0.3	0.3		4.6	4.6		1.0	1.0	
Adj Reference Time (s)	10.3	10.3		8.0	8.0		8.6	8.6		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.3		16.6									
Split Option (s)	18.3		16.6									
Minimum (s)	10.3		16.6		26.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	22.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

OPENING YEAR 1D
126: 3rd Ave SE & 4th St SE

01/15/2025

Intersection

Intersection Delay, s/veh 7.5
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	33	49	3	2	0	57	7	11	2	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.4	7.6	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	74	100	5	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.086	0.107	0.006	0.019
Departure Headway (Hd)	4.195	3.838	4.288	4.202
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	928	827	846
Service Time	2.237	1.887	2.353	2.258
HCM Lane V/C Ratio	0.087	0.108	0.006	0.019
HCM Control Delay	7.6	7.4	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0	0.1

OPENING YEAR 1D
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.953			0.937			0.989	
Flt Protected		0.993			0.981			0.990			0.971	
Satd. Flow (prot)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Flt Permitted		0.993			0.981			0.990			0.971	
Satd. Flow (perm)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	27	35	50	33	45	26	40	57	53	30	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	128	0	0	123	0	0	90	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	30.6%											
Analysis Period (min)	15											
ICU Level of Service A												

OPENING YEAR 1D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.953			0.937			0.989	
Flt Protected		0.993			0.981			0.990			0.971	
Satd. Flow (prot)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Flt Permitted		0.993			0.981			0.990			0.971	
Satd. Flow (perm)	0	1729	0	0	1741	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

OPENING YEAR 1D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	27	35	50	33	45	26	40	57	53	30	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	128	0	0	123	0	0	90	0
Intersection Summary												

OPENING YEAR 1D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

OPENING YEAR 1D

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	67	0	0	117	0	0	113	0	0	83	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1751	0	0	1765	0	0	1750	0	0	1824	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1647	0		821	0		1735	0		780	
Reference Time A (s)	0.0	4.9	0.0		17.1	0.0		7.8	0.0		12.8	
Adj Saturation B (vph)	0	0	0		0	0		0	0		0	
Reference Time B (s)	8.7	12.6	11.1		16.0	9.6		15.7	11.3		13.5	
Reference Time (s)	4.9				16.0			7.8			12.8	
Adj Reference Time (s)	8.9				20.0			11.8			16.8	
Split Option												
Ref Time Combined (s)	0.0	4.6	0.0		8.0	0.0		7.7	0.0		5.5	
Ref Time Seperate (s)	0.7	1.7	3.1		2.1	1.6		2.6	3.3		1.8	
Reference Time (s)	4.6	4.6	8.0		8.0	7.7		7.7	5.5		5.5	
Adj Reference Time (s)	8.6	8.6	12.0		12.0	11.7		11.7	9.5		9.5	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	20.0		16.8									
Split Option (s)	20.5		21.2									
Minimum (s)	20.0		16.8		36.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	30.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	3.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	73	128	123	90
Demand Flow Rate, veh/h	75	131	126	92
Vehicles Circulating, veh/h	136	79	93	112
Vehicles Exiting, veh/h	68	140	118	98
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.6	3.7	3.8	3.6
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	75	131	126	92
Cap Entry Lane, veh/h	1201	1273	1255	1231
Entry HV Adj Factor	0.979	0.980	0.978	0.983
Flow Entry, veh/h	73	128	123	90
Cap Entry, veh/h	1176	1247	1227	1209
V/C Ratio	0.062	0.103	0.100	0.075
Control Delay, s/veh	3.6	3.7	3.8	3.6
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

OPENING YEAR 1D

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected	0.971					
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted	0.971					
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1666		872			142
Travel Time (s)	37.9		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	224	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	224	0	11	0	0	51
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 28.6%			ICU Level of Service A			
Analysis Period (min) 15						

OPENING YEAR 1D

167: 3rd St SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1666		872			142
Travel Time (s)	37.9		19.8			3.2

Intersection Summary

Area Type: Other

OPENING YEAR 1D

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	224	11	0	30	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	224	0	11	0	0	51
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

OPENING YEAR 1D

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	206	10	0	28	19
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	206	0	10	0	0	47
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	229.6		0.6		0.0	31.1
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.6		9.9	11.1
Reference Time (s)			0.6			11.1
Adj Reference Time (s)			8.0			15.1
Split Option						
Ref Time Combined (s)	15.3		0.6		0.0	3.1
Ref Time Seperate (s)	0.0		0.6		1.9	1.2
Reference Time (s)	15.3		0.6		3.1	3.1
Adj Reference Time (s)	19.3		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.1			
Split Option (s)	19.3		16.0			
Minimum (s)	19.3		15.1		34.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.6%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

OPENING YEAR 1D
167: 3rd St SW

01/15/2025

Intersection

Int Delay, s/veh 8.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	206	10	0	28	19
Future Vol, veh/h	0	206	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	224	11	0	30	21

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	92 11	0 0	11 0
Stage 1	11 -	- -	- -
Stage 2	81 -	- -	- -
Critical Hdwy	6.42 6.22	- -	4.12 -
Critical Hdwy Stg 1	5.42 -	- -	- -
Critical Hdwy Stg 2	5.42 -	- -	- -
Follow-up Hdwy	3.518 3.318	- -	2.218 -
Pot Cap-1 Maneuver	908 1070	- -	1608 -
Stage 1	1012 -	- -	- -
Stage 2	942 -	- -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	891 1070	- -	1608 -
Mov Cap-2 Maneuver	891 -	- -	- -
Stage 1	1012 -	- -	- -
Stage 2	924 -	- -	- -

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1070	1608	-
HCM Lane V/C Ratio	-	- 0.209	0.019	-
HCM Control Delay (s)	-	- 9.3	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.8	0.1	-

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	14
Stops / Veh	0.46
Stops (#)	4996
Average Speed (mph)	27
Total Travel Time (hr)	97
Distance Traveled (mi)	2635
Fuel Consumed (gal)	145
Fuel Economy (mpg)	18.2
CO Emissions (kg)	10.10
NOx Emissions (kg)	1.97
VOC Emissions (kg)	2.34
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.4

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	159	259	279	309	1006
Control Delay / Veh (s/v)	7	8	10	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	8	10	7	8
Total Delay (hr)	0	1	1	1	2
Stops / Veh	0.35	0.38	0.57	0.43	0.44
Stops (#)	56	98	159	133	446
Average Speed (mph)	23	16	22	24	22
Total Travel Time (hr)	1	1	3	3	9
Distance Traveled (mi)	32	19	62	80	192
Fuel Consumed (gal)	2	2	4	4	12
Fuel Economy (mpg)	17.3	11.0	15.4	17.9	16.0
CO Emissions (kg)	0.13	0.12	0.28	0.31	0.84
NOx Emissions (kg)	0.02	0.02	0.05	0.06	0.16
VOC Emissions (kg)	0.03	0.03	0.06	0.07	0.19
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	122	215	317	654
Control Delay / Veh (s/v)	12	1	0	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	1	0	3
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.26	0.00	0.27
Stops (#)	122	55	0	177
Average Speed (mph)	13	25	30	26
Total Travel Time (hr)	1	0	2	4
Distance Traveled (mi)	10	13	70	92
Fuel Consumed (gal)	1	1	3	5
Fuel Economy (mpg)	7.1	NA	24.3	18.0
CO Emissions (kg)	0.10	0.06	0.20	0.36
NOx Emissions (kg)	0.02	0.01	0.04	0.07
VOC Emissions (kg)	0.02	0.01	0.05	0.08
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	110	110
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	0	0
Distance Traveled (mi)	8	8
Fuel Consumed (gal)	0	0
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.02	0.02
NOx Emissions (kg)	0.00	0.00
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	113	60	309	267	749
Control Delay / Veh (s/v)	4	7	10	11	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	7	10	11	9
Total Delay (hr)	0	0	1	1	2
Stops / Veh	0.25	0.52	0.58	0.67	0.56
Stops (#)	28	31	180	178	417
Average Speed (mph)	25	26	23	19	23
Total Travel Time (hr)	1	1	4	2	8
Distance Traveled (mi)	20	23	87	46	177
Fuel Consumed (gal)	1	1	5	4	11
Fuel Economy (mpg)	18.6	19.1	16.7	13.2	16.1
CO Emissions (kg)	0.08	0.09	0.36	0.24	0.77
NOx Emissions (kg)	0.01	0.02	0.07	0.05	0.15
VOC Emissions (kg)	0.02	0.02	0.08	0.06	0.18
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	93	17	74	184
Control Delay / Veh (s/v)	0	9	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	9	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.05	0.11
Stops (#)	0	17	4	21
Average Speed (mph)	30	22	30	28
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	12	4	13	28
Fuel Consumed (gal)	0	0	1	1
Fuel Economy (mpg)	NA	NA	NA	21.4
CO Emissions (kg)	0.03	0.02	0.04	0.09
NOx Emissions (kg)	0.01	0.00	0.01	0.02
VOC Emissions (kg)	0.01	0.00	0.01	0.02
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	213	63	228	504
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.13
Stops (#)	0	63	0	63
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	1	0	1	3
Distance Traveled (mi)	37	13	33	83
Fuel Consumed (gal)	2	1	1	4
Fuel Economy (mpg)	24.3	NA	24.3	22.0
CO Emissions (kg)	0.11	0.06	0.09	0.26
NOx Emissions (kg)	0.02	0.01	0.02	0.05
VOC Emissions (kg)	0.02	0.01	0.02	0.06
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	62	3	302	269	636
Control Delay / Veh (s/v)	22	20	2	0	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	22	20	2	0	3
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.48	0.04	0.35
Stops (#)	62	3	146	11	222
Average Speed (mph)	27	19	20	29	26
Total Travel Time (hr)	2	0	1	1	3
Distance Traveled (mi)	43	1	11	26	81
Fuel Consumed (gal)	2	0	1	1	5
Fuel Economy (mpg)	18.1	NA	8.0	22.7	16.2
CO Emissions (kg)	0.17	0.00	0.10	0.08	0.35
NOx Emissions (kg)	0.03	0.00	0.02	0.02	0.07
VOC Emissions (kg)	0.04	0.00	0.02	0.02	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	66	163	196	318	743
Control Delay / Veh (s/v)	18	15	0	2	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	18	15	0	2	6
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	0.00	0.39	0.48
Stops (#)	66	163	0	125	354
Average Speed (mph)	16	22	30	26	23
Total Travel Time (hr)	1	2	1	1	5
Distance Traveled (mi)	11	54	28	30	124
Fuel Consumed (gal)	1	4	1	2	8
Fuel Economy (mpg)	10.5	15.0	24.3	14.7	15.7
CO Emissions (kg)	0.07	0.25	0.08	0.14	0.55
NOx Emissions (kg)	0.01	0.05	0.02	0.03	0.11
VOC Emissions (kg)	0.02	0.06	0.02	0.03	0.13
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	136	140	25	301
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.21	1.00	0.18
Stops (#)	0	29	25	54
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	2
Distance Traveled (mi)	45	5	10	59
Fuel Consumed (gal)	2	0	1	3
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.13	0.03	0.04	0.20
NOx Emissions (kg)	0.03	0.01	0.01	0.04
VOC Emissions (kg)	0.03	0.01	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	45	127	8	68	248
Control Delay / Veh (s/v)	11	10	0	0	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	10	0	0	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.00	0.07	0.71
Stops (#)	45	127	0	5	177
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	1	0	1	2
Distance Traveled (mi)	4	25	0	18	48
Fuel Consumed (gal)	1	2	0	1	3
Fuel Economy (mpg)	NA	12.6	NA	NA	14.5
CO Emissions (kg)	0.04	0.14	0.00	0.05	0.23
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	100	184	38	51	373
Control Delay / Veh (s/v)	8	9	8	8	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	9	8	8	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	100	184	38	51	373
Average Speed (mph)	27	21	24	24	25
Total Travel Time (hr)	2	2	0	1	5
Distance Traveled (mi)	62	33	10	14	119
Fuel Consumed (gal)	3	3	1	1	8
Fuel Economy (mpg)	19.0	12.2	NA	NA	15.7
CO Emissions (kg)	0.23	0.19	0.05	0.07	0.53
NOx Emissions (kg)	0.04	0.04	0.01	0.01	0.10
VOC Emissions (kg)	0.05	0.04	0.01	0.02	0.12
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	99	391	349	839
Control Delay / Veh (s/v)	15	3	0	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	15	3	0	3
Total Delay (hr)	0	0	0	1
Stops / Veh	1.00	0.52	0.00	0.36
Stops (#)	99	203	0	302
Average Speed (mph)	18	28	30	27
Total Travel Time (hr)	1	4	3	8
Distance Traveled (mi)	18	101	98	217
Fuel Consumed (gal)	2	5	4	11
Fuel Economy (mpg)	11.2	18.4	24.3	19.5
CO Emissions (kg)	0.11	0.38	0.28	0.78
NOx Emissions (kg)	0.02	0.07	0.06	0.15
VOC Emissions (kg)	0.03	0.09	0.07	0.18
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	99	52	19	256
Control Delay / Veh (s/v)	1	2	10	10	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	10	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.37	1.00	1.00	0.47
Stops (#)	12	37	52	19	120
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	1	1	1	0	3
Distance Traveled (mi)	38	18	14	1	70
Fuel Consumed (gal)	2	1	1	0	4
Fuel Economy (mpg)	23.1	NA	NA	NA	18.8
CO Emissions (kg)	0.11	0.07	0.07	0.01	0.26
NOx Emissions (kg)	0.02	0.01	0.01	0.00	0.05
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	20	55	34	7	116
Control Delay / Veh (s/v)	0	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.35
Stops (#)	0	0	34	7	41
Average Speed (mph)	30	30	9	13	21
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	2	3	1	0	7
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.02	0.00	0.04
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	54	86	40	180
Control Delay / Veh (s/v)	0	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.24
Stops (#)	3	0	40	43
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	3	11	5	19
Fuel Consumed (gal)	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	17.3
CO Emissions (kg)	0.01	0.03	0.03	0.08
NOx Emissions (kg)	0.00	0.01	0.01	0.01
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	41	29	13	83
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.38	0.90
Stops (#)	41	29	5	75
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	5	4	0	9
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.03	0.00	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.01	0.00	0.01
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	86	36	17	51	190
Control Delay / Veh (s/v)	9	8	8	5	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	8	8	5	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.58	0.61	0.71	0.37	0.54
Stops (#)	50	22	12	19	103
Average Speed (mph)	22	19	10	23	22
Total Travel Time (hr)	1	0	0	0	1
Distance Traveled (mi)	19	5	1	8	32
Fuel Consumed (gal)	1	0	0	0	2
Fuel Economy (mpg)	15.7	NA	NA	NA	14.6
CO Emissions (kg)	0.09	0.03	0.01	0.03	0.15
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.03
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.04
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	121	121
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	3	3
Distance Traveled (mi)	199	199
Fuel Consumed (gal)	7	7
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.48	0.48
NOx Emissions (kg)	0.09	0.09
VOC Emissions (kg)	0.11	0.11
Unservd Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	30	55	42	71	198
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.37	0.35	1.00	1.00	0.72
Stops (#)	11	19	42	71	143
Average Speed (mph)	33	34	20	17	29
Total Travel Time (hr)	0	1	0	0	2
Distance Traveled (mi)	11	38	6	8	64
Fuel Consumed (gal)	1	2	1	1	4
Fuel Economy (mpg)	NA	23.6	NA	NA	17.8
CO Emissions (kg)	0.04	0.11	0.04	0.06	0.25
NOx Emissions (kg)	0.01	0.02	0.01	0.01	0.05
VOC Emissions (kg)	0.01	0.03	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	63	69	32	164
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.25	0.00	1.00	0.29
Stops (#)	16	0	32	48
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	11	14	4	29
Fuel Consumed (gal)	1	1	0	1
Fuel Economy (mpg)	NA	NA	NA	19.5
CO Emissions (kg)	0.04	0.04	0.03	0.10
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	83	107	10	36	236
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.05	0.16	1.00	1.00	0.28
Stops (#)	4	17	10	36	67
Average Speed (mph)	30	29	23	20	27
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	21	16	3	6	46
Fuel Consumed (gal)	1	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	19.3
CO Emissions (kg)	0.06	0.05	0.01	0.03	0.17
NOx Emissions (kg)	0.01	0.01	0.00	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	23	49	33	33	138
Control Delay / Veh (s/v)	2	0	9	9	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.02	1.00	1.00	0.54
Stops (#)	8	1	33	33	75
Average Speed (mph)	32	35	20	18	28
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	5	18	5	4	32
Fuel Consumed (gal)	0	1	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.6
CO Emissions (kg)	0.02	0.05	0.03	0.03	0.13
NOx Emissions (kg)	0.00	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 1st Ave E & Beltline Rd

Direction	EB	WB	SB	All
Future Volume (vph)	125	80	67	272
Control Delay / Veh (s/v)	2	0	9	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	3
Total Delay (hr)	0	0	0	0
Stops / Veh	0.41	0.00	1.00	0.43
Stops (#)	51	0	67	118
Average Speed (mph)	29	30	23	28
Total Travel Time (hr)	2	1	1	3
Distance Traveled (mi)	60	21	12	92
Fuel Consumed (gal)	3	1	1	5
Fuel Economy (mpg)	21.4	NA	11.0	19.5
CO Emissions (kg)	0.20	0.06	0.08	0.33
NOx Emissions (kg)	0.04	0.01	0.01	0.06
VOC Emissions (kg)	0.05	0.01	0.02	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	11	98	114	35	258
Control Delay / Veh (s/v)	9	10	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	10	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.37	0.50
Stops (#)	11	98	6	13	128
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	1	2	0	4
Distance Traveled (mi)	3	34	65	4	106
Fuel Consumed (gal)	0	2	3	0	5
Fuel Economy (mpg)	NA	15.9	23.9	NA	20.0
CO Emissions (kg)	0.01	0.15	0.19	0.02	0.37
NOx Emissions (kg)	0.00	0.03	0.04	0.00	0.07
VOC Emissions (kg)	0.00	0.03	0.04	0.00	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	98	94	82	274
Control Delay / Veh (s/v)	10	2	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	2	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.39	0.00	0.49
Stops (#)	98	37	0	135
Average Speed (mph)	22	19	30	26
Total Travel Time (hr)	1	0	2	3
Distance Traveled (mi)	22	3	47	71
Fuel Consumed (gal)	2	0	2	4
Fuel Economy (mpg)	13.3	NA	24.3	18.2
CO Emissions (kg)	0.11	0.02	0.13	0.27
NOx Emissions (kg)	0.02	0.00	0.03	0.05
VOC Emissions (kg)	0.03	0.01	0.03	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	91	78	58	2	229
Control Delay / Veh (s/v)	0	2	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.35	1.00	1.00	0.38
Stops (#)	0	27	58	2	87
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	14	17	7	0	38
Fuel Consumed (gal)	1	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.4
CO Emissions (kg)	0.04	0.06	0.05	0.00	0.15
NOx Emissions (kg)	0.01	0.01	0.01	0.00	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	28	46	3	34	111
Control Delay / Veh (s/v)	2	0	8	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	8	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.32	0.00	1.00	1.00	0.41
Stops (#)	9	0	3	34	46
Average Speed (mph)	29	30	23	26	28
Total Travel Time (hr)	0	0	0	1	1
Distance Traveled (mi)	14	10	1	16	41
Fuel Consumed (gal)	1	0	0	1	2
Fuel Economy (mpg)	NA	NA	NA	NA	20.3
CO Emissions (kg)	0.05	0.03	0.00	0.06	0.14
NOx Emissions (kg)	0.01	0.01	0.00	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	12	119	112	243
Control Delay / Veh (s/v)	10	1	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.16	0.00	0.13
Stops (#)	12	19	0	31
Average Speed (mph)	51	29	30	34
Total Travel Time (hr)	0	1	1	2
Distance Traveled (mi)	22	18	29	69
Fuel Consumed (gal)	1	1	1	3
Fuel Economy (mpg)	NA	NA	24.3	22.6
CO Emissions (kg)	0.07	0.06	0.08	0.21
NOx Emissions (kg)	0.01	0.01	0.02	0.04
VOC Emissions (kg)	0.02	0.01	0.02	0.05
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	49	151	78	278
Control Delay / Veh (s/v)	10	0	2	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	2	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.31	0.26
Stops (#)	49	0	24	73
Average Speed (mph)	26	30	29	29
Total Travel Time (hr)	1	1	2	4
Distance Traveled (mi)	25	39	47	111
Fuel Consumed (gal)	1	2	2	5
Fuel Economy (mpg)	17.9	24.3	22.5	21.8
CO Emissions (kg)	0.10	0.11	0.15	0.36
NOx Emissions (kg)	0.02	0.02	0.03	0.07
VOC Emissions (kg)	0.02	0.03	0.03	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	118	11	38	167
Control Delay / Veh (s/v)	10	0	1	7
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	1	7
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.11	0.73
Stops (#)	118	0	4	122
Average Speed (mph)	13	30	29	18
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	8	2	6	15
Fuel Consumed (gal)	1	0	0	2
Fuel Economy (mpg)	6.3	NA	NA	9.8
CO Emissions (kg)	0.08	0.00	0.02	0.11
NOx Emissions (kg)	0.02	0.00	0.00	0.02
VOC Emissions (kg)	0.02	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	15	67	22	15	119
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.40	0.01	1.00	1.00	0.37
Stops (#)	6	1	22	15	44
Average Speed (mph)	20	30	13	13	23
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	0	8	1	1	11
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.02	0.02	0.01	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	44	15	29	17	105
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	44	15	29	17	105
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	6	2	2	1	10
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.6
CO Emissions (kg)	0.04	0.01	0.02	0.01	0.08
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	92	5	69	15	181
Control Delay / Veh (s/v)	7	7	8	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	8	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	92	5	69	15	181
Average Speed (mph)	26	15	26	15	26
Total Travel Time (hr)	1	0	1	0	2
Distance Traveled (mi)	32	0	30	1	64
Fuel Consumed (gal)	2	0	2	0	4
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.14	0.00	0.12	0.01	0.27
NOx Emissions (kg)	0.03	0.00	0.02	0.00	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.00	0.06
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	67	118	113	83	381
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	67	118	113	83	381
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	2	2	0	5
Distance Traveled (mi)	2	56	68	15	141
Fuel Consumed (gal)	0	3	3	1	8
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.8
CO Emissions (kg)	0.03	0.21	0.24	0.07	0.55
NOx Emissions (kg)	0.01	0.04	0.05	0.01	0.11
VOC Emissions (kg)	0.01	0.05	0.06	0.02	0.13
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	206	10	47	263
Control Delay / Veh (s/v)	9	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	0	2	8
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.00	0.38	0.85
Stops (#)	206	0	18	224
Average Speed (mph)	27	30	19	27
Total Travel Time (hr)	5	0	0	5
Distance Traveled (mi)	128	2	1	131
Fuel Consumed (gal)	7	0	0	7
Fuel Economy (mpg)	18.8	NA	NA	18.6
CO Emissions (kg)	0.47	0.00	0.01	0.49
NOx Emissions (kg)	0.09	0.00	0.00	0.10
VOC Emissions (kg)	0.11	0.00	0.00	0.11
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	4
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	4
Total Delay (hr)	14
Stops / Veh	0.46
Stops (#)	4996
Average Speed (mph)	27
Total Travel Time (hr)	97
Distance Traveled (mi)	2635
Fuel Consumed (gal)	145
Fuel Economy (mpg)	18.2
CO Emissions (kg)	10.10
NOx Emissions (kg)	1.97
VOC Emissions (kg)	2.34
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	27.4

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.928			0.945					0.386		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1779	0	719	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			54			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	80	107	42	124	186	0	315	135	101	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	450	0	101	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	

DESIGN YEAR 2A
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.49			0.57		0.33	0.27	
Control Delay		7.1			9.8			12.8		13.2	7.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		7.1			9.8			12.8		13.2	7.3	
LOS		A			A			B		B	A	
Approach Delay		7.1			9.8			12.8			8.5	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.8

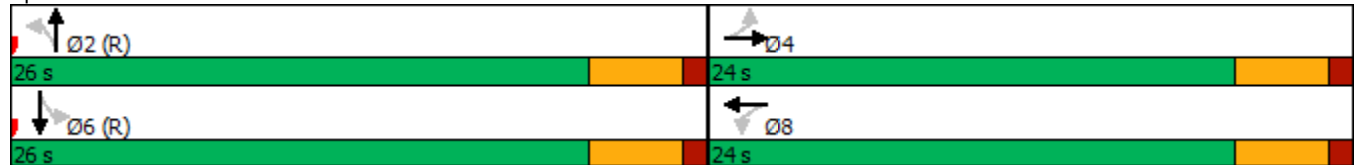
Intersection LOS: A

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2A
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.928			0.945					0.386		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1779	0	719	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			54			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

DESIGN YEAR 2A

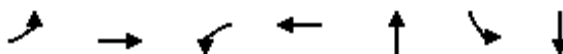
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	80	107	42	124	186	0	315	135	101	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	450	0	101	413	0
Intersection Summary												

DESIGN YEAR 2A
1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	232	74	227
Future Volume (vph)	21	59	31	91	232	74	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.31		0.49	0.57	0.33	0.27
Control Delay		7.1		9.8	12.8	13.2	7.3
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		7.1		9.8	12.8	13.2	7.3
LOS		A		A	B	B	A
Approach Delay		7.1		9.8	12.8		8.5
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.8

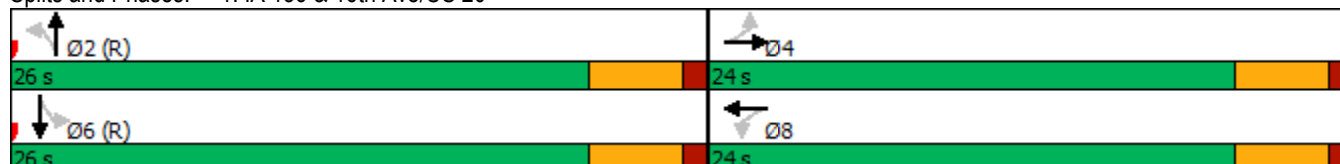
Intersection LOS: A

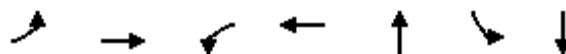
Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20





Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	216	352	450	101	413
v/c Ratio	0.31	0.49	0.57	0.33	0.27
Control Delay	7.1	9.8	12.8	13.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	9.8	12.8	13.2	7.3
Queue Length 50th (ft)	20	43	80	18	27
Queue Length 95th (ft)	56	100	151	49	50
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	694	718	795	309	1524
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.49	0.57	0.33	0.27
Intersection Summary					

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	74	99	39	114	171	0	290	124	93	284	96
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	199	0	0	324	0	0	414	0	93	380	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.96	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1815	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	27.4	0.0	6.1	13.1	0.0
Adj Reference Time (s)	0.0			0.0			9.5	31.9	0.0	10.6	17.6	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1815		120	1740	
Reference Time A (s)	0.0	18.7		0.0	29.0		0.0	27.4		92.2	13.1	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	18.7			29.0			27.4			92.2		
Adj Reference Time (s)	23.2			33.5			31.9			96.7		
Split Option												
Ref Time Combined (s)	0.0	13.7		0.0	22.3		0.0	27.4		6.1	13.1	
Ref Time Seperate (s)	1.7	5.1		2.6	7.9		0.0	19.2		6.1	9.8	
Reference Time (s)	13.7	13.7		22.3	22.3		27.4	27.4		13.1	13.1	
Adj Reference Time (s)	18.2	18.2		26.8	26.8		31.9	31.9		17.6	17.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		42.5									
Permitted Option (s)	33.5		96.7									
Split Option (s)	45.0		49.5									
Minimum (s)	33.5		42.5		76.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	63.3%			ICU Level of Service				B				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	315	135	101	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	282	318	123	262	341	144	534	229	366	1125	376
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	106	724	815	108	672	873	973	1242	532	940	2615	875
Grp Volume(v), veh/h	216	0	0	352	0	0	0	0	450	101	207	206
Grp Sat Flow(s),veh/h/ln	1645	0	0	1653	0	0	973	0	1775	940	1777	1713
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	4.6	3.8	3.9
Cycle Q Clear(g_c), s	4.4	0.0	0.0	7.9	0.0	0.0	0.0	0.0	9.7	14.3	3.8	3.9
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.30	1.00		0.51
Lane Grp Cap(c), veh/h	723	0	0	725	0	0	144	0	763	366	764	737
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.59	0.28	0.27	0.28
Avail Cap(c_a), veh/h	723	0	0	725	0	0	144	0	763	366	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	11.7	0.0	0.0	0.0	0.0	10.9	16.3	9.2	9.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	3.3	1.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.0	0.0	0.0	0.0	0.0	3.7	1.1	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	14.2	18.2	10.1	10.2
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h		216			352			450			514	
Approach Delay, s/veh		11.7			14.0			14.2			11.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		11.7		6.4		16.3		9.9				
Green Ext Time (p_c), s		2.0		1.0		1.4		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	315	135	101	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	282	318	123	262	341	144	534	229	366	1125	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	14.2	18.2	10.1	10.2
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h	216			352			450			514		
Approach Delay, s/veh	11.7			14.0			14.2			11.7		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	11.7			6.4			16.3			9.9		
Green Ext Time (g_e), s	2.0			1.0			1.4			1.5		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	973			106			940			108		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1242			724			2615			672		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	532			815			875			873		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	216	0	101	0	352
Grp Sat Flow (s), veh/h/ln	0	973	0	1645	0	940	0	1653
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.4	0.0	14.3	0.0	7.9
Perm LT Sat Flow (s_l), veh/h/ln	0	973	0	1086	0	940	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	11.6	0.0	11.8	0.0	15.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.7	0.0	0.0	0.0	8.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	4.4	0.0	0.0	0.0	7.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	723	0	366	0	725
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.28	0.00	0.49
Avail Cap (c_a), veh/h	0	144	0	723	0	366	0	725
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.6	0.0	16.3	0.0	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	1.9	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	18.2	0.0	14.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.9	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.6	0.0	1.1	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.22	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	207	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

DESIGN YEAR 2A

1: IA 136 & 16th Ave/US 20

01/15/2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	450	0	0	0	206	0	0
Grp Sat Flow (s), veh/h/ln	0	1775	0	0	0	1713	0	0
Q Serve Time (g_s), s	0.0	9.7	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.7	0.0	0.0	0.0	3.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	763	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.59	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	763	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.92	2.03	2.34	2.37
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	216	352	450	514
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.72	2.90	2.67	2.43
Bicycle LOS	C	C	C	B

DESIGN YEAR 2A

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	144	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	0	0	0	293	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	42.3%						ICU Level of Service A					
Analysis Period (min)	15											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	144	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	0	0	0	293	0	0	432	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

2: IA 136

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	0	85	0	0	0	58	211	0	0	134	264
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	218	0	0	0	0	0	269	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1734	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1280		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	20.4		0.0	0.0		0.0	57.8		0.0	14.6	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	16.8	23.1		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)	20.4			0.0			57.8			14.6		
Adj Reference Time (s)	24.4			8.0			61.8			18.6		
Split Option												
Ref Time Combined (s)	0.0	15.1		0.0	0.0		0.0	9.0		0.0	14.6	
Ref Time Seperate (s)	8.8	0.0		0.0	0.0		3.8	7.0		0.0	4.9	
Reference Time (s)	15.1	15.1		0.0	0.0		9.0	9.0		14.6	14.6	
Adj Reference Time (s)	19.1	19.1		0.0	0.0		13.0	13.0		18.6	18.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	24.4		61.8									
Split Option (s)	19.1		31.7									
Minimum (s)	19.1		31.7		50.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			42.3%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

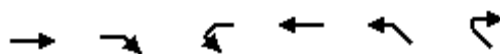
Int Delay, s/veh 5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	144	0	92	0	0	0	63	230	0	0	145	287

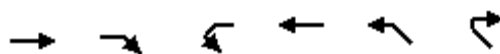
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	530	645	216	429	788	115	432	0	0	230	0	0
Stage 1	289	289	-	356	356	-	-	-	-	-	-	-
Stage 2	241	356	-	73	432	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	389	789	510	322	916	1124	-	-	1335	-	-
Stage 1	694	672	-	634	628	-	-	-	-	-	-	-
Stage 2	741	628	-	928	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	411	364	789	428	301	916	1124	-	-	1335	-	-
Mov Cap-2 Maneuver	411	364	-	428	301	-	-	-	-	-	-	-
Stage 1	650	672	-	593	588	-	-	-	-	-	-	-
Stage 2	694	588	-	819	581	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.2		0		2		0	
HCM LOS	C		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1124	-	-	506	-	1335	-
HCM Lane V/C Ratio	0.056	-	-	0.467	-	-	-
HCM Control Delay (s)	8.4	0.2	-	18.2	0	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	2.5	-	0	-



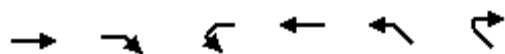
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	299	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	299	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.4%			ICU Level of Service A		
Analysis Period (min)	15					



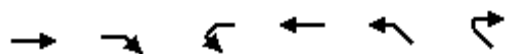
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	299	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	299	0	0	0	0
Intersection Summary						

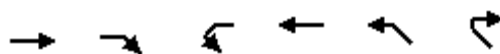


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2A

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Volume (vph)	0	275	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	275	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	20.4	0.0	0.0		0.0
Adj Reference Time (s)	0.0	24.4	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0		0.0	
Right Turns	EBR					
Adj Reference Time (s)	24.4					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	24.4					
Intersection Summary						
Intersection Capacity Utilization		20.4%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.950			0.940		0.471			0.431		
Satd. Flow (perm)	0	1587	0	0	1751	1583	877	1824	0	803	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		22			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	7	118	14	49	19	114	344	57	4	359	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	401	0	4	366	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.22			0.09	0.03	0.33	0.54		0.01	0.49	
Control Delay		4.3			9.2	2.6	12.6	13.1		8.5	12.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			9.2	2.6	12.6	13.1		8.5	12.8	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.7			13.0			12.8	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.897				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.950			0.940		0.471			0.431		
Satd. Flow (perm)	0	1587	0	0	1751	1583	877	1824	0	803	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		22			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	7	118	14	49	19	114	344	57	4	359	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	401	0	4	366	0
Intersection Summary												

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	253	3	264
Future Volume (vph)	21	5	10	36	14	84	253	3	264
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.22		0.09	0.03	0.33	0.54	0.01	0.49
Control Delay		4.3		9.2	2.6	12.6	13.1	8.5	12.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		9.2	2.6	12.6	13.1	8.5	12.8
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.7			13.0		12.8
Approach LOS		A		A			B		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 11.3

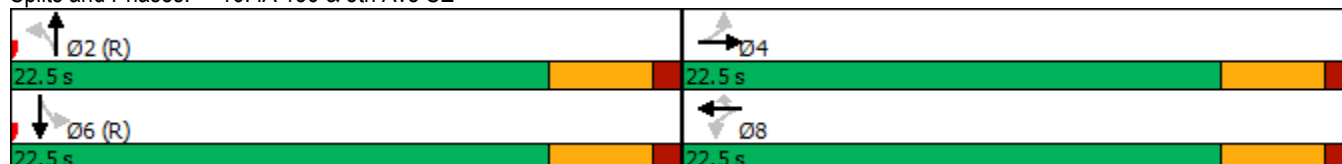
Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	63	19	114	401	4	366
v/c Ratio	0.22	0.09	0.03	0.33	0.54	0.01	0.49
Control Delay	4.3	9.2	2.6	12.6	13.1	8.5	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.2	2.6	12.6	13.1	8.5	12.8
Queue Length 50th (ft)	5	9	0	19	70	1	66
Queue Length 95th (ft)	31	m26	m6	49	133	5	123
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	705	700	654	350	742	321	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.09	0.03	0.33	0.54	0.01	0.49

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	6	109	13	45	18	105	316	53	4	330	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	141	0	0	58	18	105	369	0	4	336	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1859	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.3			7.0	23.8	0.0	0.2	21.3	0.0
Adj Reference Time (s)	0.0			9.5			11.5	28.3	0.0	9.5	25.8	0.0
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1859	120	1895	0	4	336	0
Reference Time A (s)	0.0	38.8	0.0	5.2	104.7	23.8	3.7	21.3	0.0	4.0	25.8	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	0	0	0
Reference Time B (s)	9.7	18.2	8.8	11.7	NA	NA	NA	NA	9.7	18.2	25.8	9.7
Reference Time (s)	18.2			5.2			104.7			21.3		
Adj Reference Time (s)	22.7			9.7			109.2			25.8		
Split Option												
Ref Time Combined (s)	0.0	10.2	0.0	3.7	7.0	23.8	0.2	21.3	0.0	4.0	25.8	0.0
Ref Time Seperate (s)	1.7	0.5	0.8	2.8	7.0	20.4	0.2	20.9	0.0	4.0	25.8	0.0
Reference Time (s)	10.2	10.2	3.7	3.7	23.8	23.8	21.3	21.3	10.2	10.2	25.8	10.2
Adj Reference Time (s)	14.7	14.7	9.5	9.5	28.3	28.3	25.8	25.8	14.7	14.7	25.8	14.7
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		37.8									
Permitted Option (s)	22.7		109.2									
Split Option (s)	24.2		54.1									
Minimum (s)	22.7		37.8		60.5							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	28.3											
Oncoming Left Ref Time (s)	14.7											
Combined (s)	52.5											
Intersection Summary												
Intersection Capacity Utilization			50.4%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	344	57	4	359	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	79	485	196	603	634	417	626	104	387	731	14
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	172	198	1213	245	1509	1585	1016	1564	259	984	1828	36
Grp Volume(v), veh/h	154	0	0	63	0	19	114	0	401	4	0	366
Grp Sat Flow(s),veh/h/ln	1583	0	0	1753	0	1585	1016	0	1824	984	0	1864
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	4.2	0.0	7.6	0.1	0.0	6.6
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.9	0.0	0.3	10.8	0.0	7.6	7.8	0.0	6.6
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.14	1.00		0.02
Lane Grp Cap(c), veh/h	728	0	0	799	0	634	417	0	729	387	0	746
V/C Ratio(X)	0.21	0.00	0.00	0.08	0.00	0.03	0.27	0.00	0.55	0.01	0.00	0.49
Avail Cap(c_a), veh/h	728	0	0	799	0	634	417	0	729	387	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	8.4	0.0	8.2	14.1	0.0	10.4	13.4	0.0	10.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	0.0	0.1	1.6	0.0	3.0	0.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.3	0.0	0.1	1.0	0.0	3.0	0.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.7	0.0	13.4	13.4	0.0	12.4
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		154			82			515			370	
Approach Delay, s/veh		9.6			8.5			13.9			12.4	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		12.8		4.8		9.8		2.9				
Green Ext Time (p_c), s		1.4		0.7		1.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

DESIGN YEAR 2A
16: IA 136 & 8th Ave SE

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	344	57	4	359	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	79	485	196	603	634	417	626	104	387	731	14
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.7	0.0	13.4	13.4	0.0	12.4
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	154			82			515			370		
Approach Delay, s/veh	9.6			8.5			13.9			12.4		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.2			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	12.8			4.8			9.8			2.9		
Green Ext Time (g_e), s	1.4			0.7			1.4			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1016			172			984			245		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1564			198			1828			1509		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	259			1213			36			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	114	0	154	0	4	0	63
Grp Sat Flow (s), veh/h/ln	0	1016	0	1583	0	984	0	1753
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.8	0.0	2.8	0.0	7.8	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1016	0	1354	0	984	0	1286
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	11.4	0.0	17.1	0.0	10.4	0.0	15.2
Perm LT Q Serve Time (g_ps), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	417	0	728	0	387	0	799
V/C Ratio (X)	0.00	0.27	0.00	0.21	0.00	0.01	0.00	0.08
Avail Cap (c_a), veh/h	0	417	0	728	0	387	0	799
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.1	0.0	8.9	0.0	13.4	0.0	8.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.7	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.7	0.0	9.6	0.0	13.4	0.0	8.6
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.9	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.03	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	401	0	0	0	366	0	19
Grp Sat Flow (s), veh/h/ln	0	1824	0	0	0	1864	0	1585
Q Serve Time (g_s), s	0.0	7.6	0.0	0.0	0.0	6.6	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	0.0	0.0	6.6	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	729	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.55	0.00	0.00	0.00	0.49	0.00	0.03
Avail Cap (c_a), veh/h	0	729	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.4	0.0	0.0	0.0	10.1	0.0	8.2
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.0	0.0	2.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.4	0.0	0.0	0.0	12.4	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	0.0	0.0	2.1	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	0.0	0.0	2.6	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.08	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.85	1.97	2.25	2.17
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	82	515	370
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.37	2.25	2.96	2.54
Bicycle LOS	B	B	C	C

DESIGN YEAR 2A
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	76	50	48	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	52	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.1%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Intersection Summary						

Area Type: Other



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	76	50	48	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	52	0	0	100
Intersection Summary						



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

DESIGN YEAR 2A
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	70	46	44	4	4	89
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	116	0	48	0	0	93
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.94	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1791	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	8.6	0.0		0.0		
Adj Reference Time (s)	12.6	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			119		0	120
Reference Time A (s)			47.7		0.0	92.2
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			3.2		0.0	6.1
Ref Time Seperate (s)			2.9		0.2	5.9
Reference Time (s)			3.2		6.1	6.1
Adj Reference Time (s)			8.0		10.1	10.1
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		10.1	
Minimum (s)	0.0		8.0		10.1	18.1
Right Turns	EBR					
Adj Reference Time (s)	12.6					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.6					
Intersection Summary						
Intersection Capacity Utilization			15.1%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893		0.904		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1660	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	80	304	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	0	84	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.9%			ICU Level of Service A		
Analysis Period (min)	15					

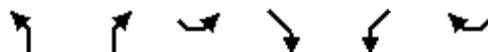
DESIGN YEAR 2A

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.893		0.904		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1660	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	80	304	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	0	84	0	311	0
Intersection Summary						



Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

DESIGN YEAR 2A

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	74	280	23	55	280	6
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	354	0	78	0	286	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1657	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	384.3		83.4		286.1	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	25.6		5.6		19.1	
Ref Time Seperate (s)	5.3		1.6		18.7	
Reference Time (s)	25.6		5.6		19.1	
Adj Reference Time (s)	29.6		9.6		23.1	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	29.6		9.6		23.1	
Minimum (s)	29.6		9.6		23.1	62.2
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		51.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.929			0.966		0.988			0.999	
Flt Protected		0.977			0.964		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1735	0	1759	0	0	1773	0
Flt Permitted		0.977			0.964		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1735	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	0	58	3	0	1	374	37	76	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	111	0	0	4	0	411	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	59.5%					ICU Level of Service B					
Analysis Period (min)	15										

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.929			0.966		0.988			0.999	
Flt Protected		0.977			0.964		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1735	0	1759	0	0	1773	0
Flt Permitted		0.977			0.964		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1735	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	53	0	58	3	0	1	374	37	76	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	111	0	0	4	0	411	0	0	432	0
Intersection Summary											



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

DESIGN YEAR 2A

30: Beltline Rd

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations		↕			↕		↕			↕	
Volume (vph)	49	0	54	3	0	1	344	34	70	325	3
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right			No			No		No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	103	0	0	4	0	378	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.92	0.85	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1709	0	0	1745	0	1789	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00		0.00			0.00	
Protected Option Allowed		No			No		No			No	
Reference Time (s)			0.0			0.0		0.0			0.0
Adj Reference Time (s)			0.0			0.0		0.0			0.0
Permitted Option											
Adj Saturation A (vph)	0	1606		0	1193		119		0	120	
Reference Time A (s)	0.0	7.7		0.0	0.4		379.8		0.0	396.6	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	11.2	15.2		8.2	8.3		NA		NA	NA	
Reference Time (s)		7.7			0.4						
Adj Reference Time (s)		11.7			8.0						
Split Option											
Ref Time Combined (s)	0.0	7.2		0.0	0.3		25.3		0.0	26.4	
Ref Time Seperate (s)	3.2	0.0		0.2	0.0		23.1		4.7	21.6	
Reference Time (s)	7.2	7.2		0.3	0.3		25.3		26.4	26.4	
Adj Reference Time (s)	11.2	11.2		8.0	8.0		29.3		30.4	30.4	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	11.7		Err		Err						
Split Option (s)	19.2		29.3		30.4						
Minimum (s)	11.7		29.3		30.4		71.4				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization		59.5%			ICU Level of Service				B		
Reference Times and Phasing Options do not represent an optimized timing plan.											

DESIGN YEAR 2A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	73	5	15	75	132	0	293	41	110	293	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	334	0	0	440	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	62.2%						ICU Level of Service B					
Analysis Period (min)	15											

DESIGN YEAR 2A

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	73	5	15	75	132	0	293	41	110	293	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	334	0	0	440	0
Intersection Summary												

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

31: 2nd Ave SE

01/15/2025

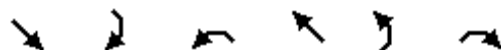
												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	10	68	5	14	69	121	0	270	38	101	270	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	204	0	0	308	0	0	405	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1865	0	0	1853	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1865		0	383	
Reference Time A (s)	0.0	8.3		0.0	16.6		0.0	19.8		0.0	126.9	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.9	22.2		NA	NA		NA	NA	
Reference Time (s)	8.3			16.6			19.8			126.9		
Adj Reference Time (s)	12.3			20.6			23.8			130.9		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	14.2		0.0	19.8		0.0	26.2	
Ref Time Seperate (s)	0.7	4.3		0.9	4.8		0.0	17.4		6.7	17.3	
Reference Time (s)	5.3	5.3		14.2	14.2		19.8	19.8		26.2	26.2	
Adj Reference Time (s)	9.3	9.3		18.2	18.2		23.8	23.8		30.2	30.2	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.6		130.9									
Split Option (s)	27.5		54.0									
Minimum (s)	20.6		54.0		74.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	62.2%			ICU Level of Service				B				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	8.1											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Future Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	73	5	15	75	132	0	293	41	110	293	37
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	949	866	312	885	864	314	330	0	0	334	0	0
Stage 1	532	532	-	314	314	-	-	-	-	-	-	-
Stage 2	417	334	-	571	550	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	240	291	728	266	292	726	1229	-	-	1225	-	-
Stage 1	531	526	-	697	656	-	-	-	-	-	-	-
Stage 2	613	643	-	506	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	259	728	190	260	726	1229	-	-	1225	-	-
Mov Cap-2 Maneuver	140	259	-	190	260	-	-	-	-	-	-	-
Stage 1	531	468	-	697	656	-	-	-	-	-	-	-
Stage 2	445	643	-	376	459	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	28.2		24.2		0		2.1					
HCM LOS	D		C									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1229	-	-	404	243	1225	-	-				
HCM Lane V/C Ratio	-	-	-	0.548	0.369	0.09	-	-				
HCM Control Delay (s)	0	-	-	24.2	28.2	8.2	0	-				
HCM Lane LOS	A	-	-	C	D	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	3.2	1.6	0.3	-	-				

DESIGN YEAR 2A

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.8%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other



Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Intersection Summary						



Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2A

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	140	30	25	150	16	15
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	170	0	0	175	31	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	11.0		0.0	34.9	32.8	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	11.0			34.9		
Adj Reference Time (s)	15.0			38.9		
Split Option						
Ref Time Combined (s)	11.0		0.0	11.1	2.2	
Ref Time Seperate (s)	9.1		1.7	9.5	1.1	
Reference Time (s)	11.0		11.1	11.1	2.2	
Adj Reference Time (s)	15.0		15.1	15.1	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	38.9		Err			
Split Option (s)	30.2		8.0			
Minimum (s)	30.2		8.0	38.2		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		31.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A
38: 2nd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 1.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	112	24	20	120	13	12
Future Vol, veh/h	112	24	20	120	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	33	27	163	18	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	185
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1390
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1390
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	1.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	709	1390	-	-	-
HCM Lane V/C Ratio	0.048	0.02	-	-	-
HCM Control Delay (s)	10.3	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	-

DESIGN YEAR 2A

49: 6th St SE

01/15/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.936	0.865							
Flt Protected					0.996					0.950			
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Flt Permitted					0.996					0.950			
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0	
Link Speed (mph)	30				30				30				
Link Distance (ft)	480				697				1407				
Travel Time (s)	10.9				15.8				32.0				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)	0				0				0				
Link Offset(ft)	0				0				0				
Crosswalk Width(ft)	16				16				16				
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Sign Control	Stop				Stop				Free				
Intersection Summary													
Area Type:	Other												
Control Type:	Unsignalized												
Intersection Capacity Utilization	33.7%				ICU Level of Service A								
Analysis Period (min)	15												

DESIGN YEAR 2A

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	56	0	13	71	75	0	0	10	85	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	56	0	0	159	0	0	10	0	0	85	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	3.6		0.0	23.3		0.0	0.7		0.0	84.8	
Adj Saturation B (vph)	NA	NA		0	0		0	1615		0	0	
Reference Time B (s)	NA	NA		8.8	18.8		0.0	0.7		13.7	13.7	
Reference Time (s)	3.6			18.8			0.7			13.7		
Adj Reference Time (s)	8.0			22.8			8.0			17.7		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	10.8		0.0	0.7		0.0	5.7	
Ref Time Seperate (s)	0.0	3.6		0.8	4.9		0.0	0.0		5.7	0.0	
Reference Time (s)	3.6	3.6		10.8	10.8		0.7	0.7		5.7	5.7	
Adj Reference Time (s)	8.0	8.0		14.8	14.8		8.0	8.0		9.7	9.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	22.8		17.7									
Split Option (s)	22.8		17.7									
Minimum (s)	22.8		17.7		40.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	33.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A

49: 6th St SE

01/15/2025

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	61	0	14	77	82	0	0	11	92	0	0	
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	269	195	0	221	190	6	0	0	0	11	0	0	
Stage 1	184	184	-	6	6	-	-	-	-	-	-	-	
Stage 2	85	11	-	215	184	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-	
Pot Cap-1 Maneuver	684	700	-	735	705	1077	-	-	-	1608	-	-	
Stage 1	818	747	-	1016	891	-	-	-	-	-	-	-	
Stage 2	923	886	-	787	747	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	551	660	-	-	665	1077	-	-	-	1608	-	-	
Mov Cap-2 Maneuver	551	660	-	-	665	-	-	-	-	-	-	-	
Stage 1	818	704	-	1016	891	-	-	-	-	-	-	-	
Stage 2	779	886	-	678	704	-	-	-	-	-	-	-	
Approach	EB		WB			NB			SB				
HCM Control Delay, s							0			7.4			
HCM LOS	-		-										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	-	-	-	-	-	1608	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	0.057	-	-					
HCM Control Delay (s)	0	-	-	-	-	7.4	0	-					
HCM Lane LOS	A	-	-	-	-	A	A	-					
HCM 95th %tile Q(veh)	-	-	-	-	-	0.2	-	-					

DESIGN YEAR 2A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.993				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Flt Permitted		0.976			0.950			0.993				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	0	3	5	0	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	5	0	0	52	0	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.5%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.993				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Flt Permitted		0.976			0.950			0.993				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	0	3	5	0	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	5	0	0	52	0	0	69	0
Intersection Summary												

DESIGN YEAR 2A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	3	5	0	0	6	38	4	0	64	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	5	0	0	5	0	0	48	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.95	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1714	0	0	1805	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1919		0	1023		0	630		0	1900	
Reference Time A (s)	0.0	0.3		0.0	0.6		0.0	9.1		0.0	4.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	1900	
Reference Time B (s)	8.2	8.4		8.3	8.3		8.4	11.1		0.0	4.0	
Reference Time (s)	0.3			0.6			9.1			4.0		
Adj Reference Time (s)	8.0			8.0			13.1			8.0		
Split Option												
Ref Time Combined (s)	0.0	0.4		0.0	0.3		0.0	3.1		0.0	4.0	
Ref Time Seperate (s)	0.2	0.0		0.3	0.0		0.4	2.4		0.0	4.0	
Reference Time (s)	0.4	0.4		0.3	0.3		3.1	3.1		4.0	4.0	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		13.1									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		13.1		21.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.5%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Future Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	3	5	0	0	7	41	4	0	69	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	50%	100%	0%
Vol Thru, %	79%	0%	0%	100%
Vol Right, %	8%	50%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	4	4	51
LT Vol	5	2	4	0
Through Vol	30	0	0	51
RT Vol	3	2	0	0
Lane Flow Rate	52	5	5	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.006	0.007	0.077
Departure Headway (Hd)	3.984	3.948	4.349	3.992
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	900	900	818	899
Service Time	2.003	1.999	2.4	2.007
HCM Lane V/C Ratio	0.058	0.006	0.006	0.077
HCM Control Delay	7.2	7	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.2

DESIGN YEAR 2A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	4	5	542	508	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	547	508	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.2%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other

DESIGN YEAR 2A
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	4	5	542	508	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	547	508	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2A
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	4	5	499	468	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	4	0	0	504	468	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	1615	0	0	1899	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	108	0		1666	1900	
Reference Time A (s)	4.2	0.0		36.3	29.5	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				36.3	29.5	
Adj Reference Time (s)				40.3	33.5	
Split Option						
Ref Time Combined (s)	0.3	0.0		31.8	29.5	
Ref Time Seperate (s)	0.0	0.3		31.5	29.5	
Reference Time (s)	0.3	31.8		31.8	29.5	
Adj Reference Time (s)	8.0	35.8		35.8	33.5	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	40.3				
Split Option (s)	8.0	69.4				
Minimum (s)	8.0	40.3		48.3		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	40.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	4	399	374	0
Future Vol, veh/h	0	3	4	399	374	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	5	542	508	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1060	508	508
Stage 1	508	-	-
Stage 2	552	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	248	565	1057
Stage 1	604	-	-
Stage 2	577	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	246	565	1057
Mov Cap-2 Maneuver	381	-	-
Stage 1	600	-	-
Stage 2	577	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1057	-	565	-	-
HCM Lane V/C Ratio	0.005	-	0.007	-	-
HCM Control Delay (s)	8.4	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Intersection Summary												

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	80	16	44	69	11	25	1	38	16	3	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	106	0	0	124	0	0	64	0	0	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	7.2		0.0	20.5		0.0	4.7		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	14.9		10.9	16.1		9.7	12.5		9.1	9.7	
Reference Time (s)	7.2			16.1			4.7			2.8		
Adj Reference Time (s)	11.2			20.1			8.7			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	8.1		0.0	4.5		0.0	1.7	
Ref Time Seperate (s)	0.7	5.2		2.9	4.4		1.7	0.1		1.1	0.2	
Reference Time (s)	6.9	6.9		8.1	8.1		4.5	4.5		1.7	1.7	
Adj Reference Time (s)	10.9	10.9		12.1	12.1		8.5	8.5		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.1		8.7									
Split Option (s)	23.0		16.5									
Minimum (s)	20.1		8.7		28.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	87	18	48	75	12	27	1	41	18	3	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	105	0	0	300	301	96	316	304	81
Stage 1	-	-	-	-	-	-	118	118	-	177	177	-
Stage 2	-	-	-	-	-	-	182	183	-	139	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1486	-	-	652	612	960	637	609	979
Stage 1	-	-	-	-	-	-	887	798	-	825	753	-
Stage 2	-	-	-	-	-	-	820	748	-	864	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1486	-	-	625	586	960	589	583	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	586	-	589	583	-
Stage 1	-	-	-	-	-	-	880	792	-	818	727	-
Stage 2	-	-	-	-	-	-	784	723	-	819	785	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.7			10			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	785	1509	-	-	1486	-	-	653				
HCM Lane V/C Ratio	0.088	0.007	-	-	0.032	-	-	0.042				
HCM Control Delay (s)	10	7.4	0	-	7.5	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1				

DESIGN YEAR 2A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	27	0	0	102	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	102	0	0	46	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.9%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	27	0	0	102	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	102	0	0	46	0	0	10	0
Intersection Summary												

DESIGN YEAR 2A
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
59: 6th St SE & 2nd Ave SE

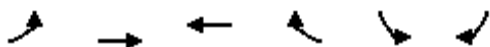
01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	25	0	0	94	0	0	0	43	0	9	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	25	0	0	94	0	0	43	0	0	9	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Reference Time (s)	1.6			5.9			3.2			0.6		
Adj Reference Time (s)	8.0			9.9			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Ref Time Seperate (s)	0.0	1.6		0.0	5.9		0.0	0.0		0.0	0.6	
Reference Time (s)	1.6	1.6		5.9	5.9		3.2	3.2		0.6	0.6	
Adj Reference Time (s)	8.0	8.0		9.9	9.9		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	9.9		8.0									
Split Option (s)	17.9		16.0									
Minimum (s)	9.9		8.0		17.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.9%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	102	0	0	0	46	0	10	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	27	0	0	134	129	27	152	129	102
Stage 1	-	-	-	-	-	-	27	27	-	102	102	-
Stage 2	-	-	-	-	-	-	107	102	-	50	27	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1587	-	-	838	762	1048	815	762	953
Stage 1	-	-	-	-	-	-	990	873	-	904	811	-
Stage 2	-	-	-	-	-	-	898	811	-	963	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1587	-	-	830	762	1048	779	762	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	762	-	779	762	-
Stage 1	-	-	-	-	-	-	990	873	-	904	811	-
Stage 2	-	-	-	-	-	-	887	811	-	921	873	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.6			9.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1048	1490	-	-	1587	-	-	762				
HCM Lane V/C Ratio	0.044	-	-	-	-	-	-	0.012				
HCM Control Delay (s)	8.6	0	-	-	0	-	-	9.8				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

DESIGN YEAR 2A
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.960		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	71	101	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	143	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 17.2%						
ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2A
62: 2nd Ave SE & 7th St SE

01/15/2025



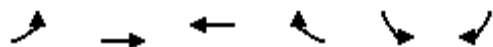
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

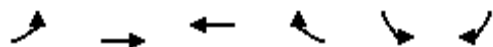
Area Type: Other

DESIGN YEAR 2A
62: 2nd Ave SE & 7th St SE

01/15/2025



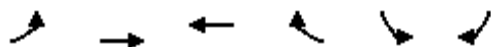
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	3	71	101	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	143	0	56	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2A
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	3	65	93	39	49	3
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	68	131	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.96	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1816	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1816		120	
Reference Time A (s)	0.0	6.5	8.7		51.4	
Adj Saturation B (vph)	NA	NA	1816		NA	
Reference Time B (s)	NA	NA	8.7		NA	
Reference Time (s)		6.5	8.7			
Adj Reference Time (s)		10.5	12.7			
Split Option						
Ref Time Combined (s)	0.0	4.3	8.7		3.4	
Ref Time Seperate (s)	0.2	4.1	6.1		3.3	
Reference Time (s)	4.3	4.3	8.7		3.4	
Adj Reference Time (s)	8.3	8.3	12.7		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	12.7		Err			
Split Option (s)	20.9		8.0			
Minimum (s)	12.7		8.0		20.7	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		17.2%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	74	31	39	2
Future Vol, veh/h	2	52	74	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	71	101	42	53	3
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	143	0	-	0	199	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1440	-	-	-	790	929
Stage 1	-	-	-	-	903	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	788	929
Mov Cap-2 Maneuver	-	-	-	-	788	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	946	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1440	-	-	-	794	
HCM Lane V/C Ratio	0.002	-	-	-	0.07	
HCM Control Delay (s)	7.5	0	-	-	9.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Intersection Summary												

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	39	4	5	28	5	0	0	0	8	0	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	51	0	0	38	0	0	0	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	4.8		0.0	3.0		0.0	0.0		0.0	1.3	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.6	11.3		8.3	10.4		0.0	0.0		8.5	9.1	
Reference Time (s)	4.8			3.0			0.0			1.3		
Adj Reference Time (s)	8.8			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	2.4		0.0	0.0		0.0	1.1	
Ref Time Seperate (s)	0.6	2.5		0.3	1.8		0.0	0.0		0.5	0.0	
Reference Time (s)	3.3	3.3		2.4	2.4		0.0	0.0		1.1	1.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.8		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.8		8.0		16.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	42	4	5	30	5	0	0	0	8	0	8
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	38	20	4	43	24	0	8	0	0	0	0	0
Stage 1	20	20	-	0	0	-	-	-	-	-	-	-
Stage 2	18	0	-	43	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	967	874	1080	960	869	-	1612	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	971	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	874	1080	922	869	-	1612	-	-	-	-	-
Mov Cap-2 Maneuver	-	874	-	922	869	-	-	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	921	875	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1612	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

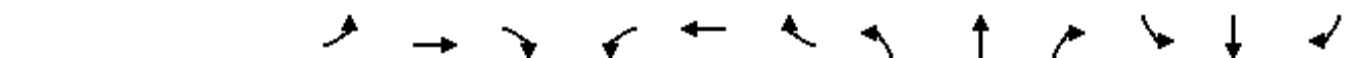
DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.995			0.978			0.921	
Flt Protected		0.977			0.995			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1844	0	0	1773	0	0	1690	0
Flt Permitted		0.863			0.980			0.894			0.935	
Satd. Flow (perm)	0	1595	0	0	1816	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	54	56	7	7	67	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	77	0	0	25	0	0	70	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.18			0.11			0.04			0.11	
Control Delay		9.3			8.7			7.7			4.4	
Queue Delay		0.0			0.0			0.0			0.0	

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		9.3			8.7			7.7			4.4	
LOS		A			A			A			A	
Approach Delay		9.3			8.7			7.7			4.4	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.8

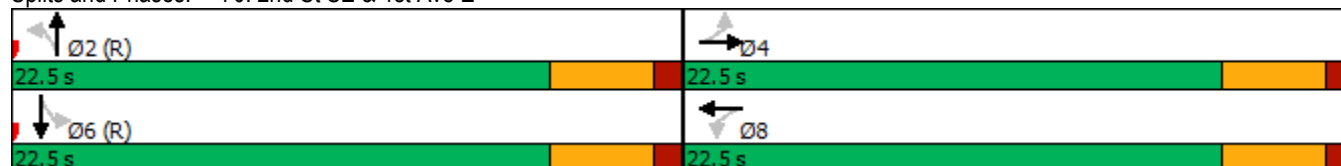
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.995			0.978			0.921	
Flt Protected		0.977			0.995			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1844	0	0	1773	0	0	1690	0
Flt Permitted		0.863			0.980			0.894			0.935	
Satd. Flow (perm)	0	1595	0	0	1816	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

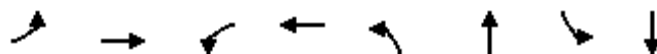
DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	54	56	7	7	67	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	77	0	0	25	0	0	70	0
Intersection Summary												

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	49	10	5	16	5
Future Volume (vph)	40	41	5	49	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.18		0.11		0.04		0.11
Control Delay		9.3		8.7		7.7		4.4
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.3		8.7		7.7		4.4
LOS		A		A		A		A
Approach Delay		9.3		8.7		7.7		4.4
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.8

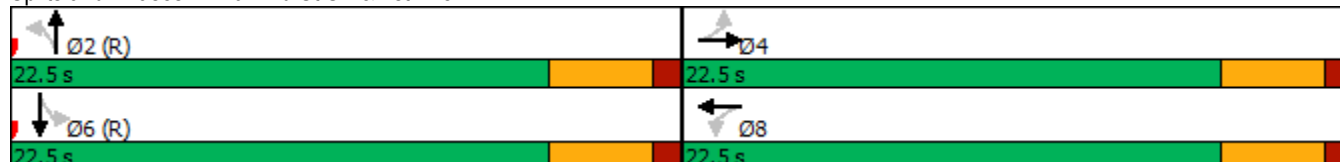
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

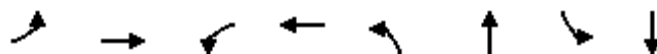
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

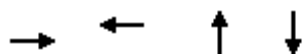
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	117	77	25	70
v/c Ratio	0.18	0.11	0.04	0.11
Control Delay	9.3	8.7	7.7	4.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.3	8.7	7.7	4.4
Queue Length 50th (ft)	17	11	3	3
Queue Length 95th (ft)	41	30	13	m16
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	642	728	654	666
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.11	0.04	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	51	6	6	61	3	13	6	4	20	6	38
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	108	0	0	70	0	0	23	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1881	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	566			0	1859			0	1036		
Reference Time A (s)	0.0	22.8			0.0	4.5			0.0	2.6		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	11.3	15.0			8.4	12.5			8.8	9.5		
Reference Time (s)	15.0				4.5				2.6			
Adj Reference Time (s)	19.5				9.5				9.5			
Split Option												
Ref Time Combined (s)	0.0	7.0			0.0	4.5			0.0	1.5		
Ref Time Seperate (s)	3.3	3.3			0.4	3.9			0.8	0.4		
Reference Time (s)	7.0	7.0			4.5	4.5			1.5	1.5		
Adj Reference Time (s)	11.5	11.5			9.5	9.5			9.5	9.5		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.5		9.5									
Split Option (s)	21.0		19.0									
Minimum (s)	19.5		9.5		29.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	67	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	350	38	111	682	29	433	207	98	254	113	370
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	628	875	96	59	1704	71	771	519	246	372	283	925
Grp Volume(v), veh/h	117	0	0	77	0	0	25	0	0	70	0	0
Grp Sat Flow(s),veh/h/ln	1599	0	0	1834	0	0	1535	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.46		0.06	0.09		0.04	0.56		0.16	0.31		0.59
Lane Grp Cap(c), veh/h	756	0	0	821	0	0	739	0	0	737	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.09	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	756	0	0	821	0	0	739	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	0.0	8.7	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		117			77			25			70	
Approach Delay, s/veh		9.1			8.7			8.3			8.7	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.4		3.8		3.2		3.2				
Green Ext Time (p_c), s		0.0		0.4		0.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	67	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	368	350	38	111	682	29	433	207	98	254	113	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.1	0.0	0.0	8.7	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	117				77		25				70	
Approach Delay, s/veh	9.1				8.7		8.3				8.7	
Approach LOS	A				A		A				A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4		6		8			
Case No	8.0				8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s	22.5				22.5		22.5		22.5			
Change Period (Y+Rc), s	4.5				4.5		4.5		4.5			
Max Green (Gmax), s	18.0				18.0		18.0		18.0			
Max Allow Headway (MAH), s	5.4				5.3		5.4		5.3			
Max Q Clear (g_c+I1), s	2.4				3.8		3.2		3.2			
Green Ext Time (g_e), s	0.0				0.4		0.2		0.2			
Prob of Phs Call (p_c)	1.00				1.00		1.00		1.00			
Prob of Max Out (p_x)	0.00				0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt	5				7		1		3			
Mvmt Sat Flow, veh/h	771				628		372		59			
Through Movement Data												
Assigned Mvmt	2				4		6		8			
Mvmt Sat Flow, veh/h	519				875		283		1704			
Right-Turn Movement Data												
Assigned Mvmt	12				14		16		18			
Mvmt Sat Flow, veh/h	246				96		925		71			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R		L+T+R		L+T+R		L+T+R					

DESIGN YEAR 2A
70: 2nd St SE & 1st Ave E

01/15/2025

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	25	0	117	0	70	0	77
Grp Sat Flow (s), veh/h/ln	0	1535	0	1599	0	1580	0	1834
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	1352	0	1426	0	1360
Shared LT Sat Flow (s_sh), veh/h/ln	0	1819	0	1828	0	1841	0	1862
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.8	0.0	16.8	0.0	17.6	0.0	16.2
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.6	0.0	2.3	0.0	4.2	0.0	11.5
Serve Time pre Blk (g_fs), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	1.2
Prop LT Inside Lane (P_L)	0.00	0.56	0.00	0.46	0.00	0.31	0.00	0.09
Lane Grp Cap (c), veh/h	0	739	0	756	0	737	0	821
V/C Ratio (X)	0.00	0.03	0.00	0.15	0.00	0.09	0.00	0.09
Avail Cap (c_a), veh/h	0	739	0	756	0	737	0	821
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.6	0.0	8.4	0.0	8.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.4	0.0	0.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	9.1	0.0	8.7	0.0	8.7
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	0.3	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.7	0.0	0.4	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.01	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.06	0.00	0.59	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

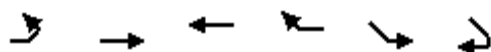
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.81	1.77	1.72	1.76
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	117	77	25	70
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.12	2.05	1.97	2.04
Bicycle LOS	B	B	B	B

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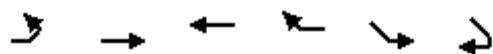


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	235	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	235	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.7%			ICU Level of Service A			
Analysis Period (min) 15						

DESIGN YEAR 2A

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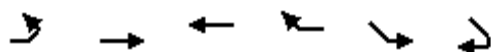
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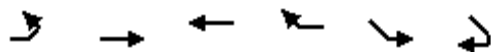
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	

Intersection Summary

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	235	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	235	0	0	0	0
Intersection Summary						

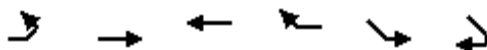


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	216	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	216	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	13.7	0.0	0.0		0.0
Adj Reference Time (s)	0.0	17.7	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	13.7	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	13.7	NA		NA	
Reference Time (s)		13.7	0.0			
Adj Reference Time (s)		17.7	8.0			
Split Option						
Ref Time Combined (s)	0.0	13.7	0.0		0.0	
Ref Time Seperate (s)	0.0	13.7	0.0		0.0	
Reference Time (s)	13.7	13.7	0.0		0.0	
Adj Reference Time (s)	17.7	17.7	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	17.7		NA			
Permitted Option (s)	17.7		Err			
Split Option (s)	17.7		0.0			
Minimum (s)	17.7		0.0	17.7		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		14.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.956			0.929			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	24	31	12	31	38	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	102	0	0	57	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.2%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.956			0.929			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	31	12	31	38	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	102	0	0	57	0	0	96	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	29	11	29	35	30	18	8	28	46	19	24
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	63	0	0	94	0	0	53	0	0	89	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1815	0	0	1781	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1291		0	1438		0	1567		0	1102	
Reference Time A (s)	0.0	5.8		0.0	7.8		0.0	4.0		0.0	9.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.5	12.1		9.9	14.3		9.2	11.7		11.1	14.0	
Reference Time (s)		5.8			7.8			4.0			9.7	
Adj Reference Time (s)		9.8			11.8			8.0			13.7	
Split Option												
Ref Time Combined (s)	0.0	4.1		0.0	6.3		0.0	3.7		0.0	6.0	
Ref Time Seperate (s)	1.5	1.9		1.9	2.4		1.2	0.5		3.1	1.3	
Reference Time (s)	4.1	4.1		6.3	6.3		3.7	3.7		6.0	6.0	
Adj Reference Time (s)	8.1	8.1		10.3	10.3		8.0	8.0		10.0	10.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.8		13.7									
Split Option (s)	18.4		18.0									
Minimum (s)	11.8		13.7		25.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	21.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

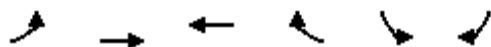
DESIGN YEAR 2A
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Future Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	31	12	31	38	33	19	8	30	50	20	26
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	43	0	0	225	218	37	221	208	55
Stage 1	-	-	-	-	-	-	85	85	-	117	117	-
Stage 2	-	-	-	-	-	-	140	133	-	104	91	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1566	-	-	730	680	1035	735	689	1012
Stage 1	-	-	-	-	-	-	923	824	-	888	799	-
Stage 2	-	-	-	-	-	-	863	786	-	902	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1529	-	-	1566	-	-	675	655	1035	687	664	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	675	655	-	687	664	-
Stage 1	-	-	-	-	-	-	908	811	-	874	782	-
Stage 2	-	-	-	-	-	-	802	769	-	853	807	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.7			2.3			9.7			10.5		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	821	1529	-	-	1566	-	-	746				
HCM Lane V/C Ratio	0.07	0.016	-	-	0.02	-	-	0.129				
HCM Control Delay (s)	9.7	7.4	0	-	7.3	0	-	10.5				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.4				

DESIGN YEAR 2A
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 20.9% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2A
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

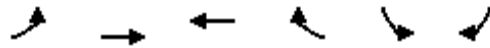
Area Type: Other

DESIGN YEAR 2A
80: Beltline Rd & 8th St NW

01/15/2025



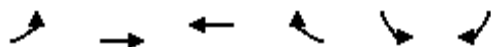
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2A
80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	16	63	55	31	10	30
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	79	86	0	40	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	20.8	5.8		43.2	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	9.1	13.0	5.8		NA	
Reference Time (s)		13.0	5.8			
Adj Reference Time (s)		17.0	9.8			
Split Option						
Ref Time Combined (s)	0.0	5.0	5.8		2.9	
Ref Time Seperate (s)	1.1	3.9	3.7		0.7	
Reference Time (s)	5.0	5.0	5.8		2.9	
Adj Reference Time (s)	9.0	9.0	9.8		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	17.0		Err			
Split Option (s)	18.8		8.0			
Minimum (s)	17.0		8.0		25.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	68	60	34	11	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	94	0	0 181 77
Stage 1	-	-	- 77 -
Stage 2	-	-	- 104 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1500	-	- 808 984
Stage 1	-	-	- 946 -
Stage 2	-	-	- 920 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1500	-	- 798 984
Mov Cap-2 Maneuver	-	-	- 798 -
Stage 1	-	-	- 935 -
Stage 2	-	-	- 920 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1500	-	-	-	930
HCM Lane V/C Ratio	0.012	-	-	-	0.047
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.963			0.937			0.938	
Flt Protected		0.998			0.994			0.977			0.978	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Flt Permitted		0.998			0.994			0.977			0.978	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	16	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.963			0.937			0.938	
Flt Protected		0.998			0.994			0.977			0.978	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Flt Permitted		0.998			0.994			0.977			0.978	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	16	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	35	0
Intersection Summary												

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	99	1	15	81	36	6	1	6	15	3	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	133	0	0	14	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1728	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1732		0	1010		0	1373		0	1353	
Reference Time A (s)	0.0	7.2		0.0	15.7		0.0	1.2		0.0	2.9	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.2	14.6		9.0	16.8		8.4	9.0		9.0	10.3	
Reference Time (s)	7.2		15.7			1.2			2.9			
Adj Reference Time (s)	11.2		19.7			8.0			8.0			
Split Option												
Ref Time Combined (s)	0.0	6.6		0.0	8.8		0.0	1.0		0.0	2.3	
Ref Time Seperate (s)	0.2	6.2		1.0	5.4		0.4	0.1		1.0	0.2	
Reference Time (s)	6.6	6.6		8.8	8.8		1.0	1.0		2.3	2.3	
Adj Reference Time (s)	10.6	10.6		12.8	12.8		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.7		8.0									
Split Option (s)	23.4		16.0									
Minimum (s)	19.7		8.0		27.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	1	16	88	39	7	1	7	16	3	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	108	0	0	265	275	108	260	256	108
Stage 1	-	-	-	-	-	-	116	116	-	140	140	-
Stage 2	-	-	-	-	-	-	149	159	-	120	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1483	-	-	688	632	946	693	648	946
Stage 1	-	-	-	-	-	-	889	800	-	863	781	-
Stage 2	-	-	-	-	-	-	854	766	-	884	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1483	-	-	666	623	946	679	638	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	679	638	-
Stage 1	-	-	-	-	-	-	886	798	-	860	772	-
Stage 2	-	-	-	-	-	-	826	757	-	874	798	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.8			9.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	764	1459	-	-	1483	-	-	776				
HCM Lane V/C Ratio	0.02	0.003	-	-	0.011	-	-	0.046				
HCM Control Delay (s)	9.8	7.5	0	-	7.5	0	-	9.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2A
96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.980			0.939			0.939	
Flt Protected		0.990			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Flt Permitted		0.990			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	31	15	15	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	80	0	0	44	0	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	15.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.980			0.939			0.939	
Flt Protected		0.990			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Flt Permitted		0.990			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	31	15	15	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	80	0	0	44	0	0	44	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

96: 5th St NW & Beltline Rd

01/15/2025

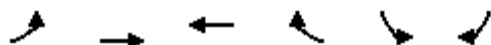


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	11	29	14	14	49	11	23	0	19	15	8	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	54	0	0	74	0	0	41	0	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1808	0	0	1839	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1296		0	1423		0	1099		0	1582	
Reference Time A (s)	0.0	5.0		0.0	6.2		0.0	4.5		0.0	3.1	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	11.6		8.9	12.8		9.5	10.9		9.0	10.8	
Reference Time (s)	5.0			6.2			4.5			3.1		
Adj Reference Time (s)	9.0			10.2			8.5			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	4.8		0.0	2.9		0.0	2.8	
Ref Time Seperate (s)	0.7	1.9		0.9	3.2		1.5	0.0		1.0	0.5	
Reference Time (s)	3.6	3.6		4.8	4.8		2.9	2.9		2.8	2.8	
Adj Reference Time (s)	8.0	8.0		8.8	8.8		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.2		8.5									
Split Option (s)	16.8		16.0									
Minimum (s)	10.2		8.5		18.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	15.6%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	31	15	15	53	12	24	0	20	16	8	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	46	0	0	166	158	39	162	159	59
Stage 1	-	-	-	-	-	-	63	63	-	89	89	-
Stage 2	-	-	-	-	-	-	103	95	-	73	70	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1562	-	-	798	734	1033	803	733	1007
Stage 1	-	-	-	-	-	-	948	842	-	918	821	-
Stage 2	-	-	-	-	-	-	903	816	-	937	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1562	-	-	764	721	1033	777	720	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	764	721	-	777	720	-
Stage 1	-	-	-	-	-	-	940	835	-	911	813	-
Stage 2	-	-	-	-	-	-	867	808	-	911	830	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			1.4			9.4			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	867	1537	-	-	1562	-	-	853				
HCM Lane V/C Ratio	0.052	0.008	-	-	0.01	-	-	0.053				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

DESIGN YEAR 2A
101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	98	94	15	16	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	170	109	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 26.8%						
ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2A
101: 1st Ave E & Beltline Rd

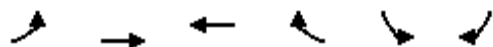
01/15/2025



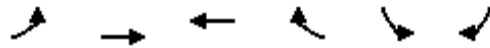
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	

Intersection Summary

Area Type: Other



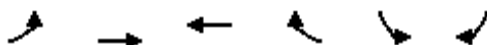
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	72	98	94	15	16	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	170	109	0	91	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2A
101: 1st Ave E & Beltline Rd

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	66	90	86	14	15	69
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	156	100	0	84	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.98	0.85	0.87	0.85
Saturated Flow (vph)	0	1860	1861	0	1651	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	245	1861		110	
Reference Time A (s)	0.0	76.5	6.4		91.3	
Adj Saturation B (vph)	0	0	1861		NA	
Reference Time B (s)	12.4	18.1	6.4		NA	
Reference Time (s)		18.1	6.4			
Adj Reference Time (s)		22.1	10.4			
Split Option						
Ref Time Combined (s)	0.0	10.1	6.4		6.1	
Ref Time Seperate (s)	4.4	5.7	5.6		1.1	
Reference Time (s)	10.1	10.1	6.4		6.1	
Adj Reference Time (s)	14.1	14.1	10.4		10.1	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	22.1		Err			
Split Option (s)	24.5		10.1			
Minimum (s)	22.1		10.1		32.2	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		26.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	72	69	11	12	55
Future Vol, veh/h	53	72	69	11	12	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	98	94	15	16	75
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	109	0	-	0	344	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1481	-	-	-	652	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1481	-	-	-	619	953
Mov Cap-2 Maneuver	-	-	-	-	619	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.2	0		9.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1481	-	-	-	869	
HCM Lane V/C Ratio	0.049	-	-	-	0.105	
HCM Control Delay (s)	7.6	0	-	-	9.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	

DESIGN YEAR 2A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.965			0.919			0.996	
Flt Protected		0.991			0.968			0.998			0.985	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Flt Permitted		0.991			0.968			0.998			0.985	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	64	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.965			0.919			0.996	
Flt Protected		0.991			0.968			0.998			0.985	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Flt Permitted		0.991			0.968			0.998			0.985	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	64	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	96	0
Intersection Summary												

DESIGN YEAR 2A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	6	6	81	9	31	5	53	85	26	59	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	121	0	0	143	0	0	88	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1863	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1802		0	579		0	1693		0	544	
Reference Time A (s)	0.0	1.0		0.0	25.1		0.0	10.1		0.0	19.3	
Adj Saturation B (vph)	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.2	9.0		13.4	16.2		8.3	17.9		NA	NA	
Reference Time (s)	1.0			16.2			10.1			19.3		
Adj Reference Time (s)	8.0			20.2			14.1			23.3		
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	8.2		0.0	9.9		0.0	5.6	
Ref Time Seperate (s)	0.2	0.4		5.4	0.6		0.3	3.7		1.7	3.7	
Reference Time (s)	1.0	1.0		8.2	8.2		9.9	9.9		5.6	5.6	
Adj Reference Time (s)	8.0	8.0		12.2	12.2		13.9	13.9		9.6	9.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.2		23.3									
Split Option (s)	20.2		23.5									
Minimum (s)	20.2		23.3		43.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	36.3%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	7	88	10	34	5	57	92	29	64	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	259	283	66	244	238	103	67	0	0	149	0	0
Stage 1	124	124	-	113	113	-	-	-	-	-	-	-
Stage 2	135	159	-	131	125	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	626	998	710	663	952	1535	-	-	1432	-	-
Stage 1	880	793	-	892	802	-	-	-	-	-	-	-
Stage 2	868	766	-	873	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	649	610	998	686	646	952	1535	-	-	1432	-	-
Mov Cap-2 Maneuver	649	610	-	686	646	-	-	-	-	-	-	-
Stage 1	876	776	-	888	799	-	-	-	-	-	-	-
Stage 2	824	763	-	841	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	11	0.3	2.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	737 736	1432	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022 0.179	0.02	-	-
HCM Control Delay (s)	7.4	0	-	10 11	7.6	0	-
HCM Lane LOS	A	A	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.6	0.1	-	-

DESIGN YEAR 2A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	34	14	43	33	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	57	98	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 21.7%						
ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

DESIGN YEAR 2A
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	72	34	14	43	33	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	57	98	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2A
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	66	31	13	40	30	60
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	98	0	0	53	90	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1747	0	0	1877	1710	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0		0.0			
Adj Reference Time (s)	0.0		0.0			
Permitted Option						
Adj Saturation A (vph)	116	0		404	1710	
Reference Time A (s)	100.4	0.0		15.6	6.3	
Adj Saturation B (vph)	NA	0		0	1710	
Reference Time B (s)	NA	8.8		11.4	6.3	
Reference Time (s)				11.4	6.3	
Adj Reference Time (s)				15.4	10.3	
Split Option						
Ref Time Combined (s)	6.7	0.0		3.4	6.3	
Ref Time Seperate (s)	4.6	0.8		2.5	2.1	
Reference Time (s)	6.7	3.4		3.4	6.3	
Adj Reference Time (s)	10.7	8.0		8.0	10.3	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	15.4				
Split Option (s)	10.7	18.3				
Minimum (s)	10.7	15.4		26.1		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	21.7%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 4.3

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 53 25 10 32 24 48

Future Vol, veh/h 53 25 10 32 24 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 72 34 14 43 33 65

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 137 66 98 0 - 0

Stage 1 66 - - - - -

Stage 2 71 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 856 998 1495 - - -

Stage 1 957 - - - - -

Stage 2 952 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 847 998 1495 - - -

Mov Cap-2 Maneuver 847 - - - - -

Stage 1 947 - - - - -

Stage 2 952 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.6 1.8 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1495 - 890 - -

HCM Lane V/C Ratio 0.009 - 0.119 - -

HCM Control Delay (s) 7.4 0 9.6 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.4 - -

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	82	56	34	105	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	140	0	0	79	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	82	56	34	105	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	140	0	0	79	0	0	2	0
Intersection Summary												

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	75	51	31	96	1	30	0	43	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	126	0	0	129	0	0	73	0	0	3	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.99	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1784	0	0	1874	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1784			0	397			0	1443	0	1233
Reference Time A (s)	0.0	8.5			0.0	38.9			0.0	6.0	0.0	0.2
Adj Saturation B (vph)	0	1784			NA	NA			0	0	0	0
Reference Time B (s)	0.0	8.5			NA	NA			10.0	13.1	8.1	8.2
Reference Time (s)	8.5				38.9				6.0		0.2	
Adj Reference Time (s)	12.5				42.9				10.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	8.5			0.0	8.2			0.0	5.1	0.0	0.2
Ref Time Seperate (s)	0.0	5.0			2.1	6.1			2.0	0.0	0.1	0.0
Reference Time (s)	8.5	8.5			8.2	8.2			5.1	5.1	0.2	0.2
Adj Reference Time (s)	12.5	12.5			12.2	12.2			9.1	9.1	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	42.9		10.0									
Split Option (s)	24.7		17.1									
Minimum (s)	24.7		10.0		34.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	56	34	105	1	33	0	46	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	106	0	0	138	0	0	284	284	110	307	312	106
Stage 1	-	-	-	-	-	-	110	110	-	174	174	-
Stage 2	-	-	-	-	-	-	174	174	-	133	138	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1485	-	-	1446	-	-	668	625	943	645	603	948
Stage 1	-	-	-	-	-	-	895	804	-	828	755	-
Stage 2	-	-	-	-	-	-	828	755	-	870	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1446	-	-	655	609	943	602	588	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	609	-	602	588	-
Stage 1	-	-	-	-	-	-	895	804	-	828	736	-
Stage 2	-	-	-	-	-	-	806	736	-	827	782	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			10			9.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	798	1485	-	-	1446	-	-	736				
HCM Lane V/C Ratio	0.099	-	-	-	0.023	-	-	0.004				
HCM Control Delay (s)	10	0	-	-	7.5	0	-	9.9				
HCM Lane LOS	B	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0				

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997						0.865			0.894	
Flt Protected		0.980									0.989	
Satd. Flow (prot)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.980									0.989	
Satd. Flow (perm)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	67	90	4	0	63	0	0	0	4	10	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	63	0	0	4	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.5%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997						0.865			0.894	
Flt Protected		0.980									0.989	
Satd. Flow (prot)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.980									0.989	
Satd. Flow (perm)	0	1820	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	49	66	3	0	46	0	0	0	3	7	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	67	90	4	0	63	0	0	0	4	10	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	63	0	0	4	0	0	47	0
Intersection Summary												

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	83	4	0	58	0	0	0	4	9	0	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	148	0	0	58	0	0	4	0	0	43	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	0.87	0.85
Saturated Flow (vph)	0	1853	0	0	1900	0	0	1615	0	0	1656	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	249		0	1900		0	1615		0	401	
Reference Time A (s)	0.0	71.2		0.0	3.6		0.0	0.3		0.0	12.7	
Adj Saturation B (vph)	0	0		0	1900		0	1615		0	0	
Reference Time B (s)	12.1	17.5		0.0	3.6		0.0	0.3		8.6	11.1	
Reference Time (s)	17.5			3.6			0.3			11.1		
Adj Reference Time (s)	21.5			8.0			8.0			15.1		
Split Option												
Ref Time Combined (s)	0.0	9.5		0.0	3.6		0.0	0.3		0.0	3.1	
Ref Time Seperate (s)	4.1	5.2		0.0	3.6		0.0	0.0		0.6	0.0	
Reference Time (s)	9.5	9.5		3.6	3.6		0.3	0.3		3.1	3.1	
Adj Reference Time (s)	13.5	13.5		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.5		15.1									
Split Option (s)	21.5		16.0									
Minimum (s)	21.5		15.1		36.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	30.5%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	66	3	0	46	0	0	0	3	7	0	27
Future Vol, veh/h	49	66	3	0	46	0	0	0	3	7	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	90	4	0	63	0	0	0	4	10	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	94	0	0	308	289	92	291	291	63
Stage 1	-	-	-	-	-	-	226	226	-	63	63	-
Stage 2	-	-	-	-	-	-	82	63	-	228	228	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1500	-	-	644	621	965	661	619	1002
Stage 1	-	-	-	-	-	-	777	717	-	948	842	-
Stage 2	-	-	-	-	-	-	926	842	-	775	715	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1500	-	-	599	592	965	635	591	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	599	592	-	635	591	-
Stage 1	-	-	-	-	-	-	741	684	-	904	842	-
Stage 2	-	-	-	-	-	-	892	842	-	736	682	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	8.7	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	965	1540	-	-	1500	-	-	895
HCM Lane V/C Ratio	0.004	0.043	-	-	-	-	-	0.052
HCM Control Delay (s)	8.7	7.4	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

DESIGN YEAR 2A

111: 330th Ave

01/15/2025

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90	
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.895					0.926			
Flt Protected					0.989					0.994			
Satd. Flow (prot)	0	0	0	0	1649	0	0	1852	0	0	1725	0	
Flt Permitted					0.989					0.994			
Satd. Flow (perm)	0	0	0	0	1649	0	0	1852	0	0	1725	0	
Link Speed (mph)					30					60			
Link Distance (ft)					364					4320			
Travel Time (s)					8.3					49.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	
Adj. Flow (vph)	0	0	0	16	0	57	18	144	0	0	101	122	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	73	0	0	162	0	0	223	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)					0					0			
Link Offset(ft)					0					0			
Crosswalk Width(ft)					16					16			
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Sign Control	Stop				Stop				Free				
Intersection Summary													
Area Type:	Other												
Control Type:	Unsignalized												
Intersection Capacity Utilization	31.3%												
Analysis Period (min)	15												
ICU Level of Service A													

111: 330th Ave

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%		0%				0%	
Storage Length (ft)	0	0		0	0		0	0		0	0	
Storage Lanes	0	0		0	0		0	0		0	0	
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.895					0.926		
Flt Protected					0.989	0.994						
Satd. Flow (prot)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Flt Permitted					0.989	0.994						
Satd. Flow (perm)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Link Speed (mph)	30				60		30		30			
Link Distance (ft)	364				4320		808		1371			
Travel Time (s)	8.3				49.1		18.4		31.2			

Area Type: Other

DESIGN YEAR 2A

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	16	0	57	18	144	0	0	101	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	73	0	0	162	0	0	223	0
Intersection Summary												

DESIGN YEAR 2A

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	0	53	16	133	0	0	93	113
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	68	0	0	149	0	0	205	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.87	0.85	0.95	0.99	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	0	0	0	1660	0	0	1890	0	0	1744	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	378		0	722		0	1744	
Reference Time A (s)	0.0	0.0		0.0	21.4		0.0	24.7		0.0	14.1	
Adj Saturation B (vph)	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		9.0	12.9		NA	NA		NA	NA	
Reference Time (s)	0.0			12.9			24.7			14.1		
Adj Reference Time (s)	8.0			16.9			28.7			18.1		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	4.9		0.0	9.4		0.0	14.1	
Ref Time Seperate (s)	0.0	0.0		1.0	0.0		1.1	8.4		0.0	6.4	
Reference Time (s)	0.0	0.0		4.9	4.9		9.4	9.4		14.1	14.1	
Adj Reference Time (s)	0.0	0.0		8.9	8.9		13.4	13.4		18.1	18.1	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.9		28.7									
Split Option (s)	8.9		31.6									
Minimum (s)	8.9		28.7		37.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A

111: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Future Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	0	57	18	144	0	0	101	122

Major/Minor	Minor1	Major1	Major2									
Conflicting Flow All	342	403	144	223	0	-	-	-	-	0		
Stage 1	180	180	-	-	-	-	-	-	-	-		
Stage 2	162	223	-	-	-	-	-	-	-	-		
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	-		
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	-		
Pot Cap-1 Maneuver	654	536	903	1346	-	0	0	-	-	-		
Stage 1	851	750	-	-	-	0	0	-	-	-		
Stage 2	867	719	-	-	-	0	0	-	-	-		
Platoon blocked, %					-			-		-		
Mov Cap-1 Maneuver	644	0	903	1346	-	-	-	-	-	-		
Mov Cap-2 Maneuver	644	0	-	-	-	-	-	-	-	-		
Stage 1	838	0	-	-	-	-	-	-	-	-		
Stage 2	867	0	-	-	-	-	-	-	-	-		

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBTWBLn1	SBT	SBR
Capacity (veh/h)	1346	-	829	-
HCM Lane V/C Ratio	0.013	-	0.089	-
HCM Control Delay (s)	7.7	0	9.8	-
HCM Lane LOS	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.3	-

DESIGN YEAR 2A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	17	142	119	20	78
Future Volume (vph)	64	17	142	119	20	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972		0.938			
Flt Protected	0.962					0.990
Satd. Flow (prot)	1742	0	1747	0	0	1844
Flt Permitted	0.962					0.990
Satd. Flow (perm)	1742	0	1747	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	87	23	193	162	27	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	0	355	0	0	133
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.1%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2A
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.972		0.938			
Flt Protected	0.962					0.990
Satd. Flow (prot)	1742	0	1747	0	0	1844
Flt Permitted	0.962					0.990
Satd. Flow (perm)	1742	0	1747	0	0	1844
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	64	17	142	119	20	78
Future Volume (vph)	64	17	142	119	20	78
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	87	23	193	162	27	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	0	355	0	0	133
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2A
114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	80	21	178	149	25	98
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	101	0	326	0	0	123
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.93	0.85	0.93	0.85	0.95	0.99
Saturated Flow (vph)	1767	0	1770	0	0	1881
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	118		1770		0	458
Reference Time A (s)	103.1		22.1		0.0	32.1
Adj Saturation B (vph)	NA		1770		NA	NA
Reference Time B (s)	NA		22.1		NA	NA
Reference Time (s)			22.1			32.1
Adj Reference Time (s)			26.1			36.1
Split Option						
Ref Time Combined (s)	6.9		22.1		0.0	7.8
Ref Time Seperate (s)	5.4		12.0		1.7	6.2
Reference Time (s)	6.9		22.1		7.8	7.8
Adj Reference Time (s)	10.9		26.1		11.8	11.8
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		36.1			
Split Option (s)	10.9		37.9			
Minimum (s)	10.9		36.1		47.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	39.1%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2A
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	17	142	119	20	78
Future Vol, veh/h	64	17	142	119	20	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	23	193	162	27	106
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	434	274	0	0	355	0
Stage 1	274	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	579	765	-	-	1204	-
Stage 1	772	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	565	765	-	-	1204	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	12.4		0		1.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	598	1204	-	
HCM Lane V/C Ratio	-	-	0.184	0.023	-	
HCM Control Delay (s)	-	-	12.4	8.1	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-	

DESIGN YEAR 2A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.937				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	120	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.8%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994						0.937				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	120	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	123	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	0	6	0	0	0	0	8	6	110	3	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	148	0	0	0	0	0	14	0	0	113	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1807	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	123		0	0		0	1770		0	122	
Reference Time A (s)	0.0	143.6		0.0	0.0		0.0	0.9		0.0	110.5	
Adj Saturation B (vph)	0	0		0	0		0	1770		0	0	
Reference Time B (s)	17.4	17.8		0.0	0.0		0.0	0.9		15.3	15.5	
Reference Time (s)		17.8			0.0			0.9			15.5	
Adj Reference Time (s)		21.8			8.0			8.0			19.5	
Split Option												
Ref Time Combined (s)	0.0	9.8		0.0	0.0		0.0	0.9		0.0	7.5	
Ref Time Seperate (s)	9.4	0.0		0.0	0.0		0.0	0.5		7.3	0.2	
Reference Time (s)	9.8	9.8		0.0	0.0		0.9	0.9		7.5	7.5	
Adj Reference Time (s)	13.8	13.8		0.0	0.0		8.0	8.0		11.5	11.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.8		19.5									
Split Option (s)	13.8		19.5									
Minimum (s)	13.8		19.5		33.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.8%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	9.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	0	7	0	0	0	0	8	7	120	3	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	255	258	3	-	0	0	15	0	0
Stage 1	243	243	-	-	-	-	-	-	-
Stage 2	12	15	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	734	646	1081	0	-	-	1603	-	0
Stage 1	797	705	-	0	-	-	-	-	0
Stage 2	1011	883	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	679	0	1081	-	-	-	1603	-	-
Mov Cap-2 Maneuver	679	0	-	-	-	-	-	-	-
Stage 1	797	0	-	-	-	-	-	-	-
Stage 2	935	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0	7.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	690	1603	-
HCM Lane V/C Ratio	-	-	0.232	0.075	-
HCM Control Delay (s)	-	-	11.8	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.971			0.977			0.980	
Flt Protected		0.973						0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Flt Permitted		0.973						0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	4	5	1	82	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	106	0	0	30	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.9%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.971			0.977			0.980	
Flt Protected		0.973						0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Flt Permitted		0.973						0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	4	5	1	82	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	106	0	0	30	0	0	20	0
Intersection Summary												

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	10	4	5	1	75	21	19	5	5	5	11	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	19	0	0	98	0	0	29	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1837	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No		No			No			No			
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	237		0	1839		0	829		0	1839	
Reference Time A (s)	0.0	9.5		0.0	6.4		0.0	4.2		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	9.3		8.1	14.4		9.2	9.9		8.3	9.2	
Reference Time (s)	9.3			6.4			4.2			1.2		
Adj Reference Time (s)	13.3			10.4			8.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	6.4		0.0	1.9		0.0	1.2	
Ref Time Seperate (s)	0.7	0.3		0.1	4.9		1.2	0.3		0.3	0.7	
Reference Time (s)	1.3	1.3		6.4	6.4		1.9	1.9		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		10.4	10.4		8.0	8.0		8.0	8.0	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	13.3		8.2									
Split Option (s)	18.4		16.0									
Minimum (s)	13.3		8.2		21.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.9%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2A
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	5	1	82	23	20	5	5	5	12	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	9	0	0	132	136	7	130	127	94
Stage 1	-	-	-	-	-	-	29	29	-	96	96	-
Stage 2	-	-	-	-	-	-	103	107	-	34	31	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1611	-	-	840	755	1075	843	764	963
Stage 1	-	-	-	-	-	-	988	871	-	911	815	-
Stage 2	-	-	-	-	-	-	903	807	-	982	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1486	-	-	1611	-	-	822	749	1075	829	758	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	749	-	829	758	-
Stage 1	-	-	-	-	-	-	981	865	-	905	814	-
Stage 2	-	-	-	-	-	-	886	806	-	964	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			9.4			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	842	1486	-	-	1611	-	-	799				
HCM Lane V/C Ratio	0.037	0.007	-	-	0.001	-	-	0.026				
HCM Control Delay (s)	9.4	7.4	0	-	7.2	0	-	9.6				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.984			0.931			0.972	
Flt Protected		0.978			0.999			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.999			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	27	20	12	1	29	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	34	0	0	39	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.7%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.984			0.931			0.972	
Flt Protected		0.978			0.999			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.999			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	27	20	12	1	29	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	34	0	0	39	0	0	24	0
Intersection Summary												

DESIGN YEAR 2A
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	19	11	1	26	4	8	10	19	13	5	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	55	0	0	31	0	0	36	0	0	23	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1862	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	386		0	1856		0	1701		0	785	
Reference Time A (s)	0.0	17.1		0.0	2.0		0.0	2.6		0.0	3.4	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.7	11.7		8.1	10.0		8.5	10.5		8.8	9.5	
Reference Time (s)	11.7			2.0			2.6			3.4		
Adj Reference Time (s)	15.7			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.7		0.0	2.0		0.0	2.5		0.0	1.5	
Ref Time Seperate (s)	1.7	1.3		0.1	1.7		0.5	0.7		0.8	0.3	
Reference Time (s)	3.7	3.7		2.0	2.0		2.5	2.5		1.5	1.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.7		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	15.7		8.0		23.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	20	12	1	29	4	8	11	20	14	5	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.2	7.1	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	4%	56%
Vol Thru, %	28%	34%	84%	22%
Vol Right, %	52%	20%	12%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	25	18
LT Vol	6	20	1	10
Through Vol	8	15	21	4
RT Vol	15	9	3	4
Lane Flow Rate	39	60	34	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.067	0.038	0.028
Departure Headway (Hd)	3.845	4.039	4.027	4.104
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	885	886	867
Service Time	1.893	2.071	2.064	2.153
HCM Lane V/C Ratio	0.042	0.068	0.038	0.028
HCM Control Delay	7.1	7.4	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

DESIGN YEAR 2A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.7%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Intersection Summary												

DESIGN YEAR 2A
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	38	56	4	3	0	65	8	13	3	16	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	115	0	0	6	0	0	85	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1745			0	710			0	451		
Reference Time A (s)	0.0	7.9			0.0	1.1			0.0	22.6		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	9.4	15.9			8.2	8.4			12.3	13.7		
Reference Time (s)	7.9				1.1				13.7			
Adj Reference Time (s)	11.9				8.0				17.7			
Split Option												
Ref Time Combined (s)	0.0	7.9			0.0	0.4			0.0	5.7		
Ref Time Seperate (s)	1.4	2.6			0.2	0.2			4.3	0.5		
Reference Time (s)	7.9	7.9			0.4	0.4			5.7	5.7		
Adj Reference Time (s)	11.9	11.9			8.0	8.0			9.7	9.7		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.9		17.7									
Split Option (s)	19.9		17.7									
Minimum (s)	11.9		17.7		29.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	41	61	4	3	0	71	8	14	3	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	92	125	7	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.135	0.008	0.024
Departure Headway (Hd)	4.244	3.877	4.347	4.262
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	915	812	830
Service Time	2.3	1.943	2.434	2.338
HCM Lane V/C Ratio	0.11	0.137	0.009	0.024
HCM Control Delay	7.8	7.6	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0	0.1

DESIGN YEAR 2A
145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936			0.953			0.938			0.990	
Flt Protected		0.992			0.981			0.989			0.971	
Satd. Flow (prot)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Flt Permitted		0.992			0.981			0.989			0.971	
Satd. Flow (perm)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	14	34	43	63	41	56	33	50	71	67	38	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	160	0	0	154	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2A

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.936			0.953			0.938			0.990	
Flt Protected		0.992			0.981			0.989			0.971	
Satd. Flow (prot)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Flt Permitted		0.992			0.981			0.989			0.971	
Satd. Flow (perm)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	34	43	63	41	56	33	50	71	67	38	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	160	0	0	154	0	0	113	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2A

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	31	40	58	38	51	30	46	65	61	35	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	84	0	0	146	0	0	141	0	0	104	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1751	0	0	1765	0	0	1750	0	0	1824	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1647		0	821		0	1735		0	780	
Reference Time A (s)	0.0	6.1		0.0	21.4		0.0	9.8		0.0	16.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.8	13.7		11.8	17.9		10.0	17.7		12.1	14.8	
Reference Time (s)	6.1			17.9			9.8			14.8		
Adj Reference Time (s)	10.1			21.9			13.8			18.8		
Split Option												
Ref Time Combined (s)	0.0	5.7		0.0	9.9		0.0	9.7		0.0	6.8	
Ref Time Seperate (s)	0.8	2.2		3.8	2.6		2.0	3.2		4.1	2.3	
Reference Time (s)	5.7	5.7		9.9	9.9		9.7	9.7		6.8	6.8	
Adj Reference Time (s)	9.7	9.7		13.9	13.9		13.7	13.7		10.8	10.8	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.9		18.8									
Split Option (s)	23.7		24.5									
Minimum (s)	21.9		18.8		40.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	34.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	25	32	46	30	41	24	37	52	49	28	6
Future Vol, veh/h	10	25	32	46	30	41	24	37	52	49	28	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	34	43	63	41	56	33	50	71	67	38	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.7	8.5	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	15%	39%	59%
Vol Thru, %	33%	37%	26%	34%
Vol Right, %	46%	48%	35%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	67	117	83
LT Vol	24	10	46	49
Through Vol	37	25	30	28
RT Vol	52	32	41	6
Lane Flow Rate	154	91	159	113
Geometry Grp	1	1	1	1
Degree of Util (X)	0.188	0.113	0.2	0.149
Departure Headway (Hd)	4.411	4.482	4.525	4.758
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	798	792	752
Service Time	2.444	2.518	2.557	2.794
HCM Lane V/C Ratio	0.19	0.114	0.201	0.15
HCM Control Delay	8.5	8.1	8.7	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.7	0.5

DESIGN YEAR 2A

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	35	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	14	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.9%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	35	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	14	0	0	64
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2A

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	33	13	0	35	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	33	0	13	0	0	59
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	36.2		0.8		0.0	38.8
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.8		10.3	11.8
Reference Time (s)			0.8			11.8
Adj Reference Time (s)			8.0			15.8
Split Option						
Ref Time Combined (s)	2.4		0.8		0.0	3.8
Ref Time Seperate (s)	0.0		0.8		2.3	1.5
Reference Time (s)	2.4		0.8		3.8	3.8
Adj Reference Time (s)	8.0		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.8			
Split Option (s)	8.0		16.0			
Minimum (s)	8.0		15.8		23.8	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	19.9%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	10	0	28	19
Future Vol, veh/h	0	26	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	14	0	38	26
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	116	14	0	0	14	0
Stage 1	14	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	880	1066	-	-	1604	-
Stage 1	1009	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	1066	-	-	1604	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	8.5		0		4.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 1066	1604	-		
HCM Lane V/C Ratio	-	- 0.033	0.024	-		
HCM Control Delay (s)	-	- 8.5	7.3	0		
HCM Lane LOS	-	- A	A	A		
HCM 95th %tile Q(veh)	-	- 0.1	0.1	-		

Network Totals

Number of Intersections	35
Total Delay (hr)	21
Stops (#)	6097
Average Speed (mph)	27
Total Travel Time (hr)	130
Distance Traveled (mi)	3550
Fuel Consumed (gal)	192
Fuel Economy (mpg)	18.4
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.8

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	199	324	414	473	1410
Control Delay / Veh (s/v)	7	10	13	8	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	10	13	8	10
Total Delay (hr)	0	1	1	1	4
Stops / Veh	0.36	0.46	0.63	0.48	0.50
Stops (#)	71	149	262	228	710
Average Speed (mph)	23	14	20	24	21
Total Travel Time (hr)	2	2	5	5	13
Distance Traveled (mi)	40	24	92	122	277
Fuel Consumed (gal)	2	2	6	7	18
Fuel Economy (mpg)	17.2	9.7	14.5	17.2	15.3
CO Emissions (kg)	0.16	0.17	0.44	0.50	1.27
NOx Emissions (kg)	0.03	0.03	0.09	0.10	0.25
VOC Emissions (kg)	0.04	0.04	0.10	0.11	0.29
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	217	270	397	884
Control Delay / Veh (s/v)	18	1	0	5
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	18	1	0	5
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.28	0.00	0.33
Stops (#)	217	75	0	292
Average Speed (mph)	10	25	30	23
Total Travel Time (hr)	2	1	3	5
Distance Traveled (mi)	17	16	88	121
Fuel Consumed (gal)	3	1	4	7
Fuel Economy (mpg)	6.4	13.8	24.3	16.2
CO Emissions (kg)	0.19	0.08	0.25	0.52
NOx Emissions (kg)	0.04	0.02	0.05	0.10
VOC Emissions (kg)	0.04	0.02	0.06	0.12
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	275	275
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	1	1
Distance Traveled (mi)	20	20
Fuel Consumed (gal)	1	1
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.06	0.06
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	142	75	474	341	1032
Control Delay / Veh (s/v)	4	8	13	13	11
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	8	13	13	11
Total Delay (hr)	0	0	2	1	3
Stops / Veh	0.24	0.53	0.68	0.70	0.62
Stops (#)	34	40	324	239	637
Average Speed (mph)	25	26	22	19	22
Total Travel Time (hr)	1	1	6	3	11
Distance Traveled (mi)	25	29	134	59	247
Fuel Consumed (gal)	1	2	9	5	16
Fuel Economy (mpg)	18.7	18.9	15.6	12.7	15.4
CO Emissions (kg)	0.09	0.11	0.60	0.32	1.12
NOx Emissions (kg)	0.02	0.02	0.12	0.06	0.22
VOC Emissions (kg)	0.02	0.02	0.14	0.08	0.26
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	116	48	92	256
Control Delay / Veh (s/v)	0	10	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.07	0.21
Stops (#)	0	48	6	54
Average Speed (mph)	30	21	30	27
Total Travel Time (hr)	0	0	1	1
Distance Traveled (mi)	15	10	16	40
Fuel Consumed (gal)	1	1	1	2
Fuel Economy (mpg)	NA	NA	NA	19.5
CO Emissions (kg)	0.04	0.05	0.05	0.14
NOx Emissions (kg)	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	353	77	286	716
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.11
Stops (#)	0	77	0	77
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	1	1	4
Distance Traveled (mi)	61	16	41	118
Fuel Consumed (gal)	3	1	2	5
Fuel Economy (mpg)	24.3	14.8	24.3	22.3
CO Emissions (kg)	0.18	0.08	0.12	0.37
NOx Emissions (kg)	0.03	0.01	0.02	0.07
VOC Emissions (kg)	0.04	0.02	0.03	0.09
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	102	4	378	397	881
Control Delay / Veh (s/v)	46	38	3	1	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	46	38	3	1	8
Total Delay (hr)	1	0	0	0	2
Stops / Veh	1.00	1.00	0.70	0.29	0.55
Stops (#)	102	4	264	116	486
Average Speed (mph)	21	13	17	27	22
Total Travel Time (hr)	3	0	1	1	6
Distance Traveled (mi)	71	1	14	38	123
Fuel Consumed (gal)	4	0	2	2	9
Fuel Economy (mpg)	16.0	NA	6.2	16.3	13.5
CO Emissions (kg)	0.31	0.01	0.16	0.16	0.64
NOx Emissions (kg)	0.06	0.00	0.03	0.03	0.12
VOC Emissions (kg)	0.07	0.00	0.04	0.04	0.15
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	82	204	307	405	998
Control Delay / Veh (s/v)	28	24	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	28	24	0	2	8
Total Delay (hr)	1	1	0	0	2
Stops / Veh	1.00	1.00	0.00	0.46	0.47
Stops (#)	82	204	0	185	471
Average Speed (mph)	13	19	30	25	21
Total Travel Time (hr)	1	4	1	2	8
Distance Traveled (mi)	14	68	44	39	164
Fuel Consumed (gal)	1	5	2	3	11
Fuel Economy (mpg)	9.3	13.8	24.3	13.8	14.9
CO Emissions (kg)	0.10	0.34	0.13	0.20	0.77
NOx Emissions (kg)	0.02	0.07	0.02	0.04	0.15
VOC Emissions (kg)	0.02	0.08	0.03	0.05	0.18
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	170	175	31	376
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.22	1.00	0.18
Stops (#)	0	38	31	69
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	3
Distance Traveled (mi)	56	6	12	74
Fuel Consumed (gal)	2	0	1	4
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.16	0.03	0.05	0.25
NOx Emissions (kg)	0.03	0.01	0.01	0.05
VOC Emissions (kg)	0.04	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	56	159	10	85	310
Control Delay / Veh (s/v)	11	11	0	0	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	11	0	0	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.00	0.08	0.72
Stops (#)	56	159	0	7	222
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	2	0	1	3
Distance Traveled (mi)	5	32	0	23	60
Fuel Consumed (gal)	1	3	0	1	4
Fuel Economy (mpg)	NA	12.5	NA	NA	14.4
CO Emissions (kg)	0.05	0.18	0.00	0.07	0.29
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.00	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	6	5	48	63	122
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	6	5	48	63	122
Average Speed (mph)	20	22	24	25	24
Total Travel Time (hr)	0	0	1	1	1
Distance Traveled (mi)	1	1	13	18	32
Fuel Consumed (gal)	0	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	15.1	14.7
CO Emissions (kg)	0.00	0.01	0.06	0.08	0.15
NOx Emissions (kg)	0.00	0.00	0.01	0.02	0.03
VOC Emissions (kg)	0.00	0.00	0.01	0.02	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	4	503	467	974
Control Delay / Veh (s/v)	11	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.03	0.00	0.02
Stops (#)	4	14	0	18
Average Speed (mph)	20	30	30	30
Total Travel Time (hr)	0	4	4	9
Distance Traveled (mi)	1	130	132	262
Fuel Consumed (gal)	0	5	5	11
Fuel Economy (mpg)	NA	23.9	24.3	24.0
CO Emissions (kg)	0.00	0.38	0.38	0.76
NOx Emissions (kg)	0.00	0.07	0.07	0.15
VOC Emissions (kg)	0.00	0.09	0.09	0.18
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	107	124	63	26	320
Control Delay / Veh (s/v)	1	2	10	11	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	11	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.39	1.00	1.00	0.48
Stops (#)	15	48	63	26	152
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	2	1	1	0	3
Distance Traveled (mi)	47	22	18	1	87
Fuel Consumed (gal)	2	1	1	0	5
Fuel Economy (mpg)	23.1	18.1	14.6	NA	18.6
CO Emissions (kg)	0.14	0.09	0.08	0.02	0.33
NOx Emissions (kg)	0.03	0.02	0.02	0.00	0.06
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	25	94	42	9	170
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.30
Stops (#)	0	0	42	9	51
Average Speed (mph)	30	30	9	13	22
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	3	6	1	1	11
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.02	0.03	0.01	0.06
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	68	132	52	252
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.22
Stops (#)	4	0	52	56
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	4	17	6	27
Fuel Consumed (gal)	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	17.7
CO Emissions (kg)	0.01	0.05	0.05	0.11
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	52	37	15	104
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.40	0.91
Stops (#)	52	37	6	95
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	7	5	0	12
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	9.8
CO Emissions (kg)	0.05	0.03	0.00	0.08
NOx Emissions (kg)	0.01	0.01	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	108	71	23	64	266
Control Delay / Veh (s/v)	9	9	8	4	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	9	8	4	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	0.58	0.59	0.65	0.28	0.52
Stops (#)	63	42	15	18	138
Average Speed (mph)	22	19	10	24	21
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	24	9	1	10	43
Fuel Consumed (gal)	2	1	0	1	3
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.11	0.05	0.01	0.04	0.21
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	216	216
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	6	6
Distance Traveled (mi)	356	356
Fuel Consumed (gal)	12	12
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.85	0.85
NOx Emissions (kg)	0.17	0.17
VOC Emissions (kg)	0.20	0.20
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	62	94	52	88	296
Control Delay / Veh (s/v)	2	2	10	11	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	10	11	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.33	1.00	1.00	0.65
Stops (#)	22	31	52	88	193
Average Speed (mph)	33	34	20	17	30
Total Travel Time (hr)	1	2	0	1	4
Distance Traveled (mi)	23	65	8	10	106
Fuel Consumed (gal)	1	3	1	1	6
Fuel Economy (mpg)	21.6	23.7	NA	9.2	18.9
CO Emissions (kg)	0.07	0.19	0.05	0.08	0.39
NOx Emissions (kg)	0.01	0.04	0.01	0.01	0.08
VOC Emissions (kg)	0.02	0.04	0.01	0.02	0.09
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	79	86	40	205
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.27	0.00	1.00	0.30
Stops (#)	21	0	40	61
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	14	18	5	36
Fuel Consumed (gal)	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	19.4
CO Emissions (kg)	0.05	0.05	0.03	0.13
NOx Emissions (kg)	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	103	132	14	32	281
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.06	0.17	1.00	1.00	0.26
Stops (#)	6	22	14	32	74
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	27	20	4	5	55
Fuel Consumed (gal)	1	1	0	0	3
Fuel Economy (mpg)	23.5	NA	NA	NA	19.7
CO Emissions (kg)	0.08	0.07	0.02	0.03	0.20
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.02	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	53	74	40	40	207
Control Delay / Veh (s/v)	1	1	9	9	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	1	9	9	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.25	0.23	1.00	1.00	0.53
Stops (#)	13	17	40	40	110
Average Speed (mph)	33	34	20	18	29
Total Travel Time (hr)	0	1	0	0	2
Distance Traveled (mi)	11	27	6	5	49
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	23.0	NA	NA	17.8
CO Emissions (kg)	0.04	0.08	0.04	0.03	0.19
NOx Emissions (kg)	0.01	0.02	0.01	0.01	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 1st Ave E & Beltline Rd

Direction	EB	WB	SB	All
Future Volume (vph)	156	100	84	340
Control Delay / Veh (s/v)	2	0	10	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	10	3
Total Delay (hr)	0	0	0	0
Stops / Veh	0.43	0.00	1.00	0.44
Stops (#)	67	0	84	151
Average Speed (mph)	29	30	23	28
Total Travel Time (hr)	3	1	1	4
Distance Traveled (mi)	75	26	15	115
Fuel Consumed (gal)	4	1	1	6
Fuel Economy (mpg)	21.3	24.3	10.9	19.4
CO Emissions (kg)	0.25	0.07	0.10	0.41
NOx Emissions (kg)	0.05	0.01	0.02	0.08
VOC Emissions (kg)	0.06	0.02	0.02	0.10
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	16	121	142	88	367
Control Delay / Veh (s/v)	10	11	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	11	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.34	0.47
Stops (#)	16	121	7	30	174
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	2	3	0	5
Distance Traveled (mi)	4	42	81	11	138
Fuel Consumed (gal)	0	3	3	1	7
Fuel Economy (mpg)	NA	15.8	24.0	NA	19.8
CO Emissions (kg)	0.02	0.19	0.24	0.04	0.49
NOx Emissions (kg)	0.00	0.04	0.05	0.01	0.10
VOC Emissions (kg)	0.00	0.04	0.05	0.01	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	98	52	90	240
Control Delay / Veh (s/v)	10	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.29	0.00	0.47
Stops (#)	98	15	0	113
Average Speed (mph)	22	21	30	27
Total Travel Time (hr)	1	0	2	3
Distance Traveled (mi)	22	1	51	74
Fuel Consumed (gal)	2	0	2	4
Fuel Economy (mpg)	13.3	NA	24.3	19.1
CO Emissions (kg)	0.11	0.01	0.15	0.27
NOx Emissions (kg)	0.02	0.00	0.03	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	127	129	73	2	331
Control Delay / Veh (s/v)	0	2	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.31	1.00	1.00	0.35
Stops (#)	0	40	73	2	115
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	1	0	2
Distance Traveled (mi)	19	29	9	0	57
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	19.9	NA	NA	17.9
CO Emissions (kg)	0.05	0.10	0.06	0.00	0.22
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	148	58	4	43	253
Control Delay / Veh (s/v)	2	0	9	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.41	0.00	1.00	1.00	0.43
Stops (#)	61	0	4	43	108
Average Speed (mph)	29	30	22	26	28
Total Travel Time (hr)	3	0	0	1	4
Distance Traveled (mi)	76	13	1	20	109
Fuel Consumed (gal)	4	1	0	1	5
Fuel Economy (mpg)	21.5	NA	NA	17.4	20.8
CO Emissions (kg)	0.25	0.04	0.00	0.08	0.37
NOx Emissions (kg)	0.05	0.01	0.00	0.02	0.07
VOC Emissions (kg)	0.06	0.01	0.00	0.02	0.08
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	67	149	205	421
Control Delay / Veh (s/v)	10	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.17	0.00	0.22
Stops (#)	67	26	0	93
Average Speed (mph)	51	29	30	40
Total Travel Time (hr)	2	1	2	5
Distance Traveled (mi)	124	23	53	200
Fuel Consumed (gal)	6	1	2	9
Fuel Economy (mpg)	22.2	20.6	24.3	22.5
CO Emissions (kg)	0.39	0.08	0.15	0.62
NOx Emissions (kg)	0.08	0.02	0.03	0.12
VOC Emissions (kg)	0.09	0.02	0.04	0.14
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	101	327	122	550
Control Delay / Veh (s/v)	12	0	1	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	0	1	3
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.30	0.25
Stops (#)	101	0	36	137
Average Speed (mph)	25	30	29	28
Total Travel Time (hr)	2	3	2	7
Distance Traveled (mi)	52	85	73	210
Fuel Consumed (gal)	3	3	3	10
Fuel Economy (mpg)	17.6	24.3	22.5	21.7
CO Emissions (kg)	0.21	0.24	0.23	0.68
NOx Emissions (kg)	0.04	0.05	0.04	0.13
VOC Emissions (kg)	0.05	0.06	0.05	0.16
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	148	14	113	275
Control Delay / Veh (s/v)	12	0	1	7
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	0	1	7
Total Delay (hr)	0	0	0	1
Stops / Veh	1.00	0.00	0.14	0.60
Stops (#)	148	0	16	164
Average Speed (mph)	12	30	29	19
Total Travel Time (hr)	1	0	1	1
Distance Traveled (mi)	10	2	17	29
Fuel Consumed (gal)	2	0	1	2
Fuel Economy (mpg)	6.1	NA	NA	11.7
CO Emissions (kg)	0.11	0.01	0.06	0.17
NOx Emissions (kg)	0.02	0.00	0.01	0.03
VOC Emissions (kg)	0.03	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	18	98	28	18	162
Control Delay / Veh (s/v)	2	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.39	0.01	1.00	1.00	0.33
Stops (#)	7	1	28	18	54
Average Speed (mph)	20	30	13	13	24
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	1	12	2	1	16
Fuel Consumed (gal)	0	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	15.0
CO Emissions (kg)	0.00	0.04	0.02	0.01	0.07
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	54	31	36	22	143
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	54	31	36	22	143
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	7	4	2	1	14
Fuel Consumed (gal)	1	0	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	8.7
CO Emissions (kg)	0.05	0.03	0.02	0.01	0.11
NOx Emissions (kg)	0.01	0.01	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.00	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	115	6	86	19	226
Control Delay / Veh (s/v)	8	7	8	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	7	8	7	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	115	6	86	19	226
Average Speed (mph)	25	14	26	15	25
Total Travel Time (hr)	2	0	1	0	3
Distance Traveled (mi)	40	0	38	1	79
Fuel Consumed (gal)	2	0	2	0	5
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.17	0.00	0.15	0.01	0.34
NOx Emissions (kg)	0.03	0.00	0.03	0.00	0.07
VOC Emissions (kg)	0.04	0.00	0.03	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	84	147	142	104	477
Control Delay / Veh (s/v)	8	9	8	9	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	9	8	9	9
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	84	147	142	104	477
Average Speed (mph)	10	26	27	21	25
Total Travel Time (hr)	0	3	3	1	7
Distance Traveled (mi)	3	70	85	19	177
Fuel Consumed (gal)	1	4	5	2	11
Fuel Economy (mpg)	NA	17.7	18.8	12.2	16.5
CO Emissions (kg)	0.05	0.28	0.32	0.11	0.75
NOx Emissions (kg)	0.01	0.05	0.06	0.02	0.15
VOC Emissions (kg)	0.01	0.06	0.07	0.02	0.17
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	32	13	59	104
Control Delay / Veh (s/v)	8	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	8	0	2	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.37	0.52
Stops (#)	32	0	22	54
Average Speed (mph)	23	30	19	23
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	7	2	2	11
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.01	0.01	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.00	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

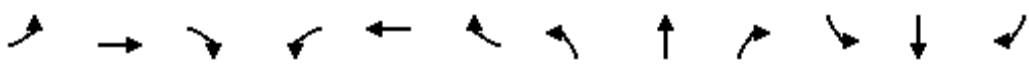
Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	5
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	5
Total Delay (hr)	21
Stops / Veh	0.42
Stops (#)	6097
Average Speed (mph)	27
Total Travel Time (hr)	130
Distance Traveled (mi)	3550
Fuel Consumed (gal)	192
Fuel Economy (mpg)	18.4
CO Emissions (kg)	13.45
NOx Emissions (kg)	2.62
VOC Emissions (kg)	3.12
Unserviced Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.8

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.965			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1798	0	1770	3405	0
Flt Permitted		0.928			0.945					0.496		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1798	0	924	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			38			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	80	107	42	124	186	0	265	80	5	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	345	0	5	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.49			0.43		0.01	0.27	
Control Delay		7.1			9.8			10.9		8.4	7.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		7.1			9.8			10.9		8.4	7.3	
LOS		A			A			B		A	A	
Approach Delay		7.1			9.8			10.9			7.3	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 49.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20

 Ø2 (R)	 Ø4
26 s	24 s
 Ø6 (R)	 Ø8
26 s	24 s

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.965			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1798	0	1770	3405	0
Flt Permitted		0.928			0.945					0.496		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1798	0	924	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			38			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

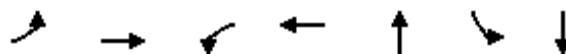
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	195	59	4	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	80	107	42	124	186	0	265	80	5	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	345	0	5	413	0
Intersection Summary												

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	195	4	227
Future Volume (vph)	21	59	31	91	195	4	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.31		0.49	0.43	0.01	0.27
Control Delay		7.1		9.8	10.9	8.4	7.3
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		7.1		9.8	10.9	8.4	7.3
LOS		A		A	B	A	A
Approach Delay		7.1		9.8	10.9		7.3
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.9

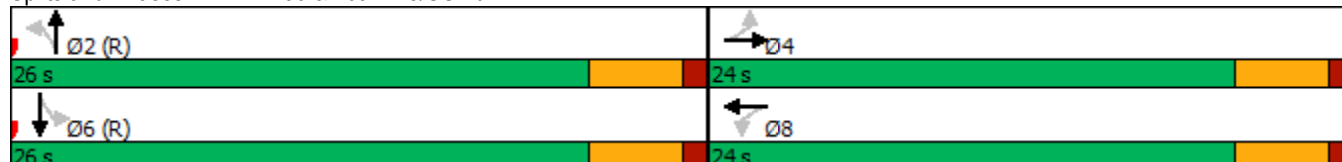
Intersection LOS: A

Intersection Capacity Utilization 49.0%

ICU Level of Service A

Analysis Period (min) 15

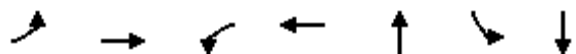
Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	216	352	345	5	413
v/c Ratio	0.31	0.49	0.43	0.01	0.27
Control Delay	7.1	9.8	10.9	8.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	9.8	10.9	8.4	7.3
Queue Length 50th (ft)	20	43	58	1	27
Queue Length 95th (ft)	56	100	111	5	50
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	694	718	794	397	1524
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.49	0.43	0.01	0.27
Intersection Summary					

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	74	99	39	114	171	0	244	74	5	284	96
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	199	0	0	324	0	0	318	0	5	380	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1834	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	20.8	0.0	0.3	13.1	0.0
Adj Reference Time (s)	0.0			0.0			9.5	25.3	0.0	9.5	17.6	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1834		120	1740	
Reference Time A (s)	0.0	18.7		0.0	29.0		0.0	20.8		5.0	13.1	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	18.7			29.0			20.8			13.1		
Adj Reference Time (s)	23.2			33.5			25.3			17.6		
Split Option												
Ref Time Combined (s)	0.0	13.7		0.0	22.3		0.0	20.8		0.3	13.1	
Ref Time Seperate (s)	1.7	5.1		2.6	7.9		0.0	16.0		0.3	9.8	
Reference Time (s)	13.7	13.7		22.3	22.3		20.8	20.8		13.1	13.1	
Adj Reference Time (s)	18.2	18.2		26.8	26.8		25.3	25.3		17.6	17.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		34.8									
Permitted Option (s)	33.5		25.3									
Split Option (s)	45.0		42.9									
Minimum (s)	33.5		25.3		58.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	49.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	265	80	5	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	282	318	123	262	341	144	593	179	449	1125	376
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	106	724	815	108	672	873	973	1379	416	1036	2615	875
Grp Volume(v), veh/h	216	0	0	352	0	0	0	0	345	5	207	206
Grp Sat Flow(s),veh/h/ln	1645	0	0	1653	0	0	973	0	1795	1036	1777	1713
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.2	3.8	3.9
Cycle Q Clear(g_c), s	4.4	0.0	0.0	7.9	0.0	0.0	0.0	0.0	6.8	7.0	3.8	3.9
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.23	1.00		0.51
Lane Grp Cap(c), veh/h	723	0	0	725	0	0	144	0	772	449	764	737
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.45	0.01	0.27	0.28
Avail Cap(c_a), veh/h	723	0	0	725	0	0	144	0	772	449	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	11.7	0.0	0.0	0.0	0.0	10.1	12.5	9.2	9.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	1.9	0.0	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.0	0.0	0.0	0.0	0.0	2.5	0.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	11.9	12.6	10.1	10.2
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h		216			352			345			418	
Approach Delay, s/veh		11.7			14.0			11.9			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		8.8		6.4		9.0		9.9				
Green Ext Time (p_c), s		1.7		1.0		2.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				11.9								
HCM 6th LOS				B								

DESIGN YEAR 2B

1: IA 136 & 16th Ave/US 20

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	195	59	4	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	265	80	5	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	282	318	123	262	341	144	593	179	449	1125	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	11.9	12.6	10.1	10.2
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h	216			352			345			418		
Approach Delay, s/veh	11.7			14.0			11.9			10.2		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	8.8			6.4			9.0			9.9		
Green Ext Time (g_e), s	1.7			1.0			2.0			1.5		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	973			106			1036			108		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1379			724			2615			672		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	416			815			875			873		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	216	0	5	0	352
Grp Sat Flow (s), veh/h/ln	0	973	0	1645	0	1036	0	1653
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.4	0.0	7.0	0.0	7.9
Perm LT Sat Flow (s_l), veh/h/ln	0	973	0	1086	0	1036	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	11.6	0.0	14.7	0.0	15.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.7	0.0	0.0	0.0	8.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	4.4	0.0	0.0	0.0	7.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	723	0	449	0	725
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.01	0.00	0.49
Avail Cap (c_a), veh/h	0	144	0	723	0	449	0	725
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.6	0.0	12.5	0.0	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	12.6	0.0	14.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.0	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.6	0.0	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	207	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	345	0	0	0	206	0	0
Grp Sat Flow (s), veh/h/ln	0	1795	0	0	0	1713	0	0
Q Serve Time (g_s), s	0.0	6.8	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.8	0.0	0.0	0.0	3.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.23	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	772	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	772	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.1	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.9	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.92	1.95	2.31	2.34
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	216	352	345	418
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.72	2.90	2.50	2.35
Bicycle LOS	C	C	B	B

DESIGN YEAR 2B

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.905									0.900	
Flt Protected		0.985						0.989				
Satd. Flow (prot)	0	1660	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.985						0.989				
Satd. Flow (perm)	0	1660	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	39	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	0	0	0	293	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.0%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2B

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.905									0.900	
Flt Protected		0.985						0.989				
Satd. Flow (prot)	0	1660	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.985						0.989				
Satd. Flow (perm)	0	1660	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	29	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	39	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	0	0	0	0	0	293	0	0	432	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

2: IA 136

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	0	85	0	0	0	58	211	0	0	134	264
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	121	0	0	0	0	0	269	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1675	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1532		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	9.5		0.0	0.0		0.0	57.8		0.0	14.6	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	10.4	16.7		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)	9.5			0.0			57.8			14.6		
Adj Reference Time (s)	13.5			8.0			61.8			18.6		
Split Option												
Ref Time Combined (s)	0.0	8.7		0.0	0.0		0.0	9.0		0.0	14.6	
Ref Time Seperate (s)	2.4	0.0		0.0	0.0		3.8	7.0		0.0	4.9	
Reference Time (s)	8.7	8.7		0.0	0.0		9.0	9.0		14.6	14.6	
Adj Reference Time (s)	12.7	12.7		0.0	0.0		13.0	13.0		18.6	18.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.5		61.8									
Split Option (s)	12.7		31.7									
Minimum (s)	12.7		31.7		44.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	37.0%		ICU Level of Service		A							
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	29	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	0	92	0	0	0	63	230	0	0	145	287

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	530	645	216	429	788	115	432	0	0	230	0	0
Stage 1	289	289	-	356	356	-	-	-	-	-	-	-
Stage 2	241	356	-	73	432	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	389	789	510	322	916	1124	-	-	1335	-	-
Stage 1	694	672	-	634	628	-	-	-	-	-	-	-
Stage 2	741	628	-	928	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	411	364	789	428	301	916	1124	-	-	1335	-	-
Mov Cap-2 Maneuver	411	364	-	428	301	-	-	-	-	-	-	-
Stage 1	650	672	-	593	588	-	-	-	-	-	-	-
Stage 2	694	588	-	819	581	-	-	-	-	-	-	-

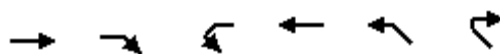
Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.4		0		2		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1124	-	-	619	-	1335	-
HCM Lane V/C Ratio	0.056	-	-	0.213	-	-	-
HCM Control Delay (s)	8.4	0.2	-	12.4	0	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	-	0	-

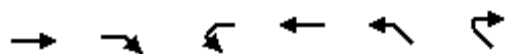
DESIGN YEAR 2B

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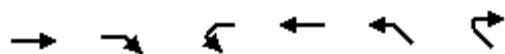
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	149	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	149	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	11.8%			ICU Level of Service A		
Analysis Period (min)	15					



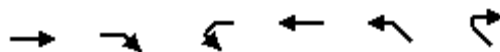
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	149	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	149	0	0	0	0
Intersection Summary						

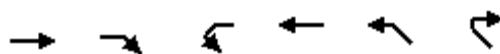


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2B

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Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Volume (vph)	0	138	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	138	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	10.2	0.0	0.0		0.0
Adj Reference Time (s)	0.0	14.2	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0	0.0		
Right Turns	EBR					
Adj Reference Time (s)	14.2					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	14.2					
Intersection Summary						
Intersection Capacity Utilization		11.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.950			0.940		0.479			0.541		
Satd. Flow (perm)	0	1587	0	0	1751	1583	892	1811	0	1008	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		31			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	7	118	14	49	19	114	249	57	4	352	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	306	0	4	359	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.22			0.09	0.03	0.32	0.41		0.01	0.48	
Control Delay		4.3			9.0	2.6	12.5	10.8		8.2	12.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			9.0	2.6	12.5	10.8		8.2	12.7	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.5			11.2			12.6	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.897				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.950			0.940		0.479			0.541		
Satd. Flow (perm)	0	1587	0	0	1751	1583	892	1811	0	1008	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		31			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	7	118	14	49	19	114	249	57	4	352	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	306	0	4	359	0
Intersection Summary												

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	183	3	259
Future Volume (vph)	21	5	10	36	14	84	183	3	259
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.22		0.09	0.03	0.32	0.41	0.01	0.48
Control Delay		4.3		9.0	2.6	12.5	10.8	8.2	12.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		9.0	2.6	12.5	10.8	8.2	12.7
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.5			11.2		12.6
Approach LOS		A		A			B		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.4

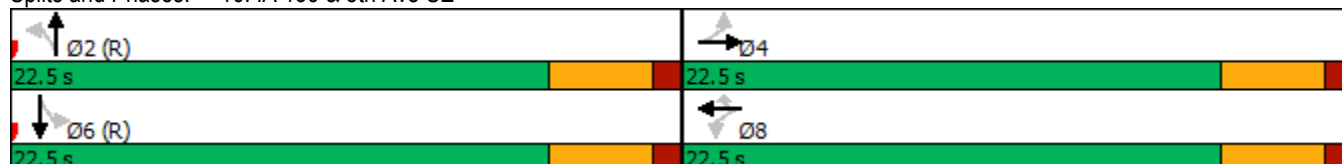
Intersection LOS: B

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	63	19	114	306	4	359
v/c Ratio	0.22	0.09	0.03	0.32	0.41	0.01	0.48
Control Delay	4.3	9.0	2.6	12.5	10.8	8.2	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.0	2.6	12.5	10.8	8.2	12.7
Queue Length 50th (ft)	5	9	0	19	47	1	64
Queue Length 95th (ft)	31	m26	m6	49	95	5	120
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	705	700	654	356	743	403	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.09	0.03	0.32	0.41	0.01	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	6	109	13	45	18	105	229	53	4	324	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	141	0	0	58	18	105	281	0	4	330	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1847	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.3			7.0			18.3		
Adj Reference Time (s)	0.0			9.5			11.5			22.8		
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1847	120	1895	0	4	330	0
Reference Time A (s)	0.0	38.8	0.0	5.2	104.7	18.3	3.7	20.9	0.0	0.2	25.4	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	0	0	0
Reference Time B (s)	9.7	18.2	8.8	11.7	NA	NA	NA	NA	9.7	18.2	22.7	9.7
Reference Time (s)	18.2			5.2			104.7			20.9		
Adj Reference Time (s)	22.7			9.7			109.2			25.4		
Split Option												
Ref Time Combined (s)	0.0	10.2	0.0	3.7	7.0	18.3	0.2	20.9	0.0	0.5	14.7	0.0
Ref Time Seperate (s)	1.7	0.5	0.8	2.8	7.0	14.9	0.2	20.5	10.2	10.2	3.7	3.7
Reference Time (s)	10.2	10.2	3.7	3.7	18.3	18.3	20.9	20.9	14.7	14.7	9.5	9.5
Adj Reference Time (s)	14.7	14.7	9.5	9.5	22.8	22.8	25.4	25.4	18.3	18.3	10.2	10.2
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		36.9									
Permitted Option (s)	22.7		109.2									
Split Option (s)	24.2		48.2									
Minimum (s)	22.7		36.9		59.6							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	22.8											
Oncoming Left Ref Time (s)	14.7											
Combined (s)	47.0											
Intersection Summary												
Intersection Capacity Utilization			49.6%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	249	57	4	352	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	79	485	196	603	634	423	589	135	458	731	15
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	172	198	1213	245	1509	1585	1022	1473	337	1073	1827	36
Grp Volume(v), veh/h	154	0	0	63	0	19	114	0	306	4	0	359
Grp Sat Flow(s),veh/h/ln	1583	0	0	1753	0	1585	1022	0	1810	1073	0	1864
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	4.2	0.0	5.5	0.1	0.0	6.4
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.9	0.0	0.3	10.6	0.0	5.5	5.6	0.0	6.4
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.19	1.00		0.02
Lane Grp Cap(c), veh/h	728	0	0	799	0	634	423	0	724	458	0	746
V/C Ratio(X)	0.21	0.00	0.00	0.08	0.00	0.03	0.27	0.00	0.42	0.01	0.00	0.48
Avail Cap(c_a), veh/h	728	0	0	799	0	634	423	0	724	458	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	8.4	0.0	8.2	14.0	0.0	9.7	11.8	0.0	10.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	0.0	0.1	1.6	0.0	1.8	0.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.3	0.0	0.1	1.0	0.0	2.1	0.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.6	0.0	11.6	11.8	0.0	12.3
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		154			82			420			363	
Approach Delay, s/veh		9.6			8.5			12.6			12.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		12.6		4.8		8.4		2.9				
Green Ext Time (p_c), s		1.1		0.7		1.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	249	57	4	352	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	79	485	196	603	634	423	589	135	458	731	15
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.6	0.0	11.6	11.8	0.0	12.3
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	154			82			420			363		
Approach Delay, s/veh	9.6			8.5			12.6			12.2		
Approach LOS	A			A			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			7.0		
Phs Duration (G+Y+Rc), s	22.5			22.5			22.5			22.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	18.0			18.0			18.0			18.0		
Max Allow Headway (MAH), s	5.2			5.5			5.2			5.0		
Max Q Clear (g_c+I1), s	12.6			4.8			8.4			2.9		
Green Ext Time (g_e), s	1.1			0.7			1.5			0.2		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	1022			172			1073			245		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1473			198			1827			1509		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	337			1213			36			1585		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T		

DESIGN YEAR 2B
16: IA 136 & 8th Ave SE

01/15/2025

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	114	0	154	0	4	0	63
Grp Sat Flow (s), veh/h/ln	0	1022	0	1583	0	1073	0	1753
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.6	0.0	2.8	0.0	5.6	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1022	0	1354	0	1073	0	1286
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	11.6	0.0	17.1	0.0	12.5	0.0	15.2
Perm LT Q Serve Time (g_ps), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	423	0	728	0	458	0	799
V/C Ratio (X)	0.00	0.27	0.00	0.21	0.00	0.01	0.00	0.08
Avail Cap (c_a), veh/h	0	423	0	728	0	458	0	799
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	8.9	0.0	11.8	0.0	8.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.7	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.6	0.0	9.6	0.0	11.8	0.0	8.6
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.9	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.03	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DESIGN YEAR 2B

16: IA 136 & 8th Ave SE

01/15/2025

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	306	0	0	0	359	0	19
Grp Sat Flow (s), veh/h/ln	0	1810	0	0	0	1864	0	1585
Q Serve Time (g_s), s	0.0	5.5	0.0	0.0	0.0	6.4	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	5.5	0.0	0.0	0.0	6.4	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	724	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.48	0.00	0.03
Avail Cap (c_a), veh/h	0	724	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.7	0.0	0.0	0.0	10.0	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	2.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	12.3	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.0	2.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.0	0.0	2.5	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.08	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.85	1.97	2.22	2.14
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	82	420	363
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.37	2.25	2.81	2.53
Bicycle LOS	B	B	C	C

DESIGN YEAR 2B
26: 9th St SE & 2nd Ave SE

01/15/2025

						
Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.977			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1747	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1747	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	76	50	20	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	24	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.1%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2B
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.977			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1747	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1747	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3

Intersection Summary

Area Type: Other



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	76	50	20	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	24	0	0	100
Intersection Summary						



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

DESIGN YEAR 2B
26: 9th St SE & 2nd Ave SE

01/15/2025

						
Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	70	46	19	4	4	89
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	116	0	23	0	0	93
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.93	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1775	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	8.6	0.0		0.0		
Adj Reference Time (s)	12.6	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			118		0	120
Reference Time A (s)			22.8		0.0	92.2
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			1.5		0.0	6.1
Ref Time Seperate (s)			1.3		0.2	5.9
Reference Time (s)			1.5		6.1	6.1
Adj Reference Time (s)			8.0		10.1	10.1
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		10.1	
Minimum (s)	0.0		8.0		10.1	18.1
Right Turns	EBR					
Adj Reference Time (s)	12.6					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.6					
Intersection Summary						
Intersection Capacity Utilization		15.1%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	39	174	18	44	219	5
Future Volume (vph)	39	174	18	44	219	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890		0.904		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1660	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	236	24	60	298	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	84	0	305	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.3%			ICU Level of Service A		
Analysis Period (min)	15					

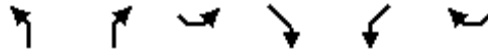
DESIGN YEAR 2B

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890		0.904		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1660	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	39	174	18	44	219	5
Future Volume (vph)	39	174	18	44	219	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	53	236	24	60	298	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	84	0	305	0
Intersection Summary						



Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

DESIGN YEAR 2B

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	49	218	23	55	274	6
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	266	0	78	0	280	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1652	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	290.1		83.4		279.8	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	19.3		5.6		18.7	
Ref Time Seperate (s)	3.5		1.6		18.2	
Reference Time (s)	19.3		5.6		18.7	
Adj Reference Time (s)	23.3		9.6		22.7	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	23.3		9.6		22.7	
Minimum (s)	23.3		9.6		22.7	55.6
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		46.3%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.966		0.995			0.999	
Flt Protected		0.969			0.964		0.954			0.953	
Satd. Flow (prot)	0	1715	0	0	1735	0	1768	0	0	1773	0
Flt Permitted		0.969			0.964		0.954			0.953	
Satd. Flow (perm)	0	1715	0	0	1735	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	0	31	3	0	1	394	16	8	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	84	0	0	4	0	410	0	0	364	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	54.7%					ICU Level of Service A					
Analysis Period (min)	15										



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.950			0.966		0.995			0.999	
Flt Protected		0.969			0.964		0.954			0.953	
Satd. Flow (prot)	0	1715	0	0	1735	0	1768	0	0	1773	0
Flt Permitted		0.969			0.964		0.954			0.953	
Satd. Flow (perm)	0	1715	0	0	1735	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	

Intersection Summary

Area Type: Other

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	53	0	31	3	0	1	394	16	8	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	84	0	0	4	0	410	0	0	364	0
Intersection Summary											



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

DESIGN YEAR 2B

30: Beltline Rd

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Volume (vph)	49	0	29	3	0	1	363	15	8	325	3
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right	No			No			No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	78	0	0	4	0	378	0	0	335	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1738	0	0	1745	0	1798	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00		0.00			0.00	
Protected Option Allowed		No			No		No			No	
Reference Time (s)			0.0			0.0		0.0			0.0
Adj Reference Time (s)			0.0			0.0		0.0			0.0
Permitted Option											
Adj Saturation A (vph)	0	1521		0	1442		120		0	120	
Reference Time A (s)	0.0	6.1		0.0	0.3		377.9		0.0	334.3	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	11.2	13.4		8.2	8.3		NA		NA	NA	
Reference Time (s)		6.1			0.3						
Adj Reference Time (s)		10.1			8.0						
Split Option											
Ref Time Combined (s)	0.0	5.4		0.0	0.3		25.2		0.0	22.3	
Ref Time Seperate (s)	3.2	0.0		0.2	0.0		24.2		0.5	21.6	
Reference Time (s)	5.4	5.4		0.3	0.3		25.2		22.3	22.3	
Adj Reference Time (s)	9.4	9.4		8.0	8.0		29.2		26.3	26.3	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	10.1		Err		Err						
Split Option (s)	17.4		29.2		26.3						
Minimum (s)	10.1		29.2		26.3		65.6				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization	54.7%			ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.											

DESIGN YEAR 2B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.979			0.988	
Flt Protected		0.994			0.997						0.986	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Flt Permitted		0.994			0.997						0.986	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	73	5	15	75	132	0	226	41	110	253	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	267	0	0	400	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	56.9%				ICU Level of Service B							
Analysis Period (min)	15											

DESIGN YEAR 2B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.979			0.988	
Flt Protected		0.994			0.997						0.986	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Flt Permitted		0.994			0.997						0.986	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	186	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	73	5	15	75	132	0	226	41	110	253	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	267	0	0	400	0
Intersection Summary												

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

31: 2nd Ave SE

01/15/2025

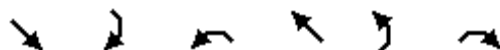
												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	10	68	5	14	69	121	0	208	38	101	233	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	204	0	0	245	0	0	368	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1856	0	0	1848	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1856		0	352	
Reference Time A (s)	0.0	8.3		0.0	16.6		0.0	15.8		0.0	125.2	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.9	22.2		NA	NA		NA	NA	
Reference Time (s)	8.3			16.6			15.8			125.2		
Adj Reference Time (s)	12.3			20.6			19.8			129.2		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	14.2		0.0	15.8		0.0	23.9	
Ref Time Seperate (s)	0.7	4.3		0.9	4.8		0.0	13.4		6.7	15.0	
Reference Time (s)	5.3	5.3		14.2	14.2		15.8	15.8		23.9	23.9	
Adj Reference Time (s)	9.3	9.3		18.2	18.2		19.8	19.8		27.9	27.9	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.6		129.2									
Split Option (s)	27.5		47.7									
Minimum (s)	20.6		47.7		68.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	56.9%			ICU Level of Service			B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	7.5											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	166	30	81	186	27
Future Vol, veh/h	8	54	4	11	55	97	0	166	30	81	186	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	73	5	15	75	132	0	226	41	110	253	37
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	842	759	272	778	757	247	290	0	0	267	0	0
Stage 1	492	492	-	247	247	-	-	-	-	-	-	-
Stage 2	350	267	-	531	510	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	284	336	767	314	337	792	1272	-	-	1297	-	-
Stage 1	558	548	-	757	702	-	-	-	-	-	-	-
Stage 2	666	688	-	532	538	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	178	302	767	235	303	792	1272	-	-	1297	-	-
Mov Cap-2 Maneuver	178	302	-	235	303	-	-	-	-	-	-	-
Stage 1	558	492	-	757	702	-	-	-	-	-	-	-
Stage 2	496	688	-	404	483	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	23.1		19.6		0		2.2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1272	-	-	465	288	1297	-	-				
HCM Lane V/C Ratio	-	-	-	0.476	0.311	0.085	-	-				
HCM Control Delay (s)	0	-	-	19.6	23.1	8	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	2.5	1.3	0.3	-	-				

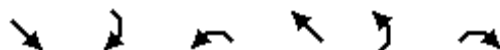
DESIGN YEAR 2B

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.8%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other



Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Intersection Summary						



Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2B

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	140	30	25	150	16	15
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	170	0	0	175	31	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	11.0		0.0	34.9	32.8	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	11.0			34.9		
Adj Reference Time (s)	15.0			38.9		
Split Option						
Ref Time Combined (s)	11.0		0.0	11.1	2.2	
Ref Time Seperate (s)	9.1		1.7	9.5	1.1	
Reference Time (s)	11.0		11.1	11.1	2.2	
Adj Reference Time (s)	15.0		15.1	15.1	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	38.9		Err			
Split Option (s)	30.2		8.0			
Minimum (s)	30.2		8.0	38.2		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		31.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

38: 2nd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 1.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	112	24	20	120	13	12
Future Vol, veh/h	112	24	20	120	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	33	27	163	18	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	185
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1390
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1390
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	1.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	709	1390	-	-	-
HCM Lane V/C Ratio	0.048	0.02	-	-	-
HCM Control Delay (s)	10.3	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	-

DESIGN YEAR 2B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.936	0.865						
Flt Protected					0.996					0.950		
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996					0.950		
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)					30					30		
Link Distance (ft)					480					697		
Travel Time (s)					10.9					5.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)					0					0		
Link Offset(ft)					0					0		
Crosswalk Width(ft)					16					16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.7%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	56	0	13	71	75	0	0	10	85	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	56	0	0	159	0	0	10	0	0	85	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	3.6		0.0	23.3		0.0	0.7		0.0	84.8	
Adj Saturation B (vph)	NA	NA		0	0		0	1615		0	0	
Reference Time B (s)	NA	NA		8.8	18.8		0.0	0.7		13.7	13.7	
Reference Time (s)	3.6			18.8			0.7			13.7		
Adj Reference Time (s)	8.0			22.8			8.0			17.7		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	10.8		0.0	0.7		0.0	5.7	
Ref Time Seperate (s)	0.0	3.6		0.8	4.9		0.0	0.0		5.7	0.0	
Reference Time (s)	3.6	3.6		10.8	10.8		0.7	0.7		5.7	5.7	
Adj Reference Time (s)	8.0	8.0		14.8	14.8		8.0	8.0		9.7	9.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	22.8		17.7									
Split Option (s)	22.8		17.7									
Minimum (s)	22.8		17.7		40.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	33.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B

49: 6th St SE

01/15/2025

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	61	0	14	77	82	0	0	11	92	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	269	195	0	221	190	6	0	0	0	11	0	0
Stage 1	184	184	-	6	6	-	-	-	-	-	-	-
Stage 2	85	11	-	215	184	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	684	700	-	735	705	1077	-	-	-	1608	-	-
Stage 1	818	747	-	1016	891	-	-	-	-	-	-	-
Stage 2	923	886	-	787	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	551	660	-	-	665	1077	-	-	-	1608	-	-
Mov Cap-2 Maneuver	551	660	-	-	665	-	-	-	-	-	-	-
Stage 1	818	704	-	1016	891	-	-	-	-	-	-	-
Stage 2	779	886	-	678	704	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s					0		7.4					
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	-	-	-	-	-	1608	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	0.057	-	-				
HCM Control Delay (s)	0	-	-	-	-	7.4	0	-				
HCM Lane LOS	A	-	-	-	-	A	A	-				
HCM 95th %tile Q(veh)	-	-	-	-	-	0.2	-	-				

DESIGN YEAR 2B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997						0.990				
Flt Protected		0.999			0.999			0.993				
Satd. Flow (prot)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Flt Permitted		0.999			0.999			0.993				
Satd. Flow (perm)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1465			942			1407			1471	
Travel Time (s)		33.3			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	132	3	5	245	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	250	0	0	52	0	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997						0.990				
Flt Protected		0.999			0.999			0.993				
Satd. Flow (prot)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Flt Permitted		0.999			0.999			0.993				
Satd. Flow (perm)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1465			942			1407			1471	
Travel Time (s)		33.3			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	132	3	5	245	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	250	0	0	52	0	0	69	0
Intersection Summary												

DESIGN YEAR 2B

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

52: 6th St SE & 13th Ave SE

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (vph)	3	121	3	5	225	0	6	38	4	0	64	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right			No			No			No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	126	0	0	230	0	0	48	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1892	0	0	1898	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00			0.00			0.00	
Protected Option Allowed		No			No			No			No	
Reference Time (s)			0.0			0.0			0.0			0.0
Adj Reference Time (s)			0.0			0.0			0.0			0.0
Permitted Option												
Adj Saturation A (vph)	0	1627		0	1599		0	630		0	1900	
Reference Time A (s)	0.0	9.3		0.0	17.3		0.0	9.1		0.0	4.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	1900	
Reference Time B (s)	NA	NA		NA	NA		8.4	11.1		0.0	4.0	
Reference Time (s)		9.3			17.3			9.1			4.0	
Adj Reference Time (s)		13.3			21.3			13.1			8.0	
Split Option												
Ref Time Combined (s)	0.0	8.0		0.0	14.5		0.0	3.1		0.0	4.0	
Ref Time Seperate (s)	0.2	7.7		0.3	14.2		0.4	2.4		0.0	4.0	
Reference Time (s)	8.0	8.0		14.5	14.5		3.1	3.1		4.0	4.0	
Adj Reference Time (s)	12.0	12.0		18.5	18.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.3		13.1									
Split Option (s)	30.5		16.0									
Minimum (s)	21.3		13.1		34.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization		28.6%			ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection

Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Future Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	132	3	5	245	0	7	41	4	0	69	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9.3	8.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	2%	2%	0%
Vol Thru, %	79%	96%	98%	100%
Vol Right, %	8%	2%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	101	184	51
LT Vol	5	2	4	0
Through Vol	30	97	180	51
RT Vol	3	2	0	0
Lane Flow Rate	52	137	250	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.171	0.305	0.094
Departure Headway (Hd)	4.879	4.494	4.388	4.875
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	734	799	820	735
Service Time	2.912	2.521	2.411	2.908
HCM Lane V/C Ratio	0.071	0.171	0.305	0.094
HCM Control Delay	8.3	8.5	9.3	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.6	1.3	0.3

DESIGN YEAR 2B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	97	3	114	252	299	70
Future Volume (vph)	97	3	114	252	299	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.974	
Flt Protected	0.954			0.985		
Satd. Flow (prot)	1770	0	0	1835	1814	0
Flt Permitted	0.954			0.985		
Satd. Flow (perm)	1770	0	0	1835	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	132	4	155	342	406	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	0	497	501	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 66.4% ICU Level of Service C						
Analysis Period (min) 15						

DESIGN YEAR 2B
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.996				0.974	
Flt Protected	0.954			0.985		
Satd. Flow (prot)	1770	0	0	1835	1814	0
Flt Permitted	0.954			0.985		
Satd. Flow (perm)	1770	0	0	1835	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	

Intersection Summary

Area Type: Other



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	97	3	114	252	299	70
Future Volume (vph)	97	3	114	252	299	70
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	132	4	155	342	406	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	0	497	501	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2B
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	121	4	143	315	374	88
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	125	0	0	458	461	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.98	0.97	0.85
Saturated Flow (vph)	1800	0	0	1870	1846	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	120	0		321	1846	
Reference Time A (s)	125.0	0.0		170.8	30.0	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				170.8	30.0	
Adj Reference Time (s)				174.8	34.0	
Split Option						
Ref Time Combined (s)	8.3	0.0		29.4	30.0	
Ref Time Seperate (s)	8.1	9.5		19.9	24.3	
Reference Time (s)	8.3	29.4		29.4	30.0	
Adj Reference Time (s)	12.3	33.4		33.4	34.0	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	174.8				
Split Option (s)	12.3	67.3				
Minimum (s)	12.3	67.3		79.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	66.4%		ICU Level of Service		C	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 4

Movement	EBL	EBR	NBL	NBT	SBT	SBR

Lane Configurations						

Traffic Vol, veh/h	97	3	114	252	299	70

Future Vol, veh/h	97	3	114	252	299	70

Conflicting Peds, #/hr	0	0	0	0	0	0

Sign Control	Stop	Stop	Free	Free	Free	Free

RT Channelized	-	None	-	None	-	None

Storage Length	0	-	-	-	-	-

Veh in Median Storage, #	0	-	-	0	0	-

Grade, %	0	-	-	0	0	-

Peak Hour Factor	92	92	92	92	92	92

Heavy Vehicles, %	2	2	2	2	2	2

Mvmt Flow	132	4	155	342	406	95

Major/Minor	Minor2	Major1	Major2

Conflicting Flow All	1106	454	501

Stage 1	454	-	-

Stage 2	652	-	-

Critical Hdwy	6.42	6.22	4.12

Critical Hdwy Stg 1	5.42	-	-

Critical Hdwy Stg 2	5.42	-	-

Follow-up Hdwy	3.518	3.318	2.218

Pot Cap-1 Maneuver	233	606	1063

Stage 1	640	-	-

Stage 2	518	-	-

Platoon blocked, %			

Mov Cap-1 Maneuver	191	606	1063

Mov Cap-2 Maneuver	325	-	-

Stage 1	525	-	-

Stage 2	518	-	-

Approach	EB	NB	SB

HCM Control Delay, s	23.3	2.8	0

HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR

Capacity (veh/h)	1063	-	330	-	-

HCM Lane V/C Ratio	0.146	-	0.412	-	-

HCM Control Delay (s)	9	0	23.3	-	-

HCM Lane LOS	A	A	C	-	-

HCM 95th %tile Q(veh)	0.5	-	1.9	-	-

DESIGN YEAR 2B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Intersection Summary												

DESIGN YEAR 2B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	80	16	44	69	11	25	1	38	16	3	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	106	0	0	124	0	0	64	0	0	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	7.2		0.0	20.5		0.0	4.7		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	14.9		10.9	16.1		9.7	12.5		9.1	9.7	
Reference Time (s)	7.2			16.1			4.7			2.8		
Adj Reference Time (s)	11.2			20.1			8.7			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	8.1		0.0	4.5		0.0	1.7	
Ref Time Seperate (s)	0.7	5.2		2.9	4.4		1.7	0.1		1.1	0.2	
Reference Time (s)	6.9	6.9		8.1	8.1		4.5	4.5		1.7	1.7	
Adj Reference Time (s)	10.9	10.9		12.1	12.1		8.5	8.5		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.1		8.7									
Split Option (s)	23.0		16.5									
Minimum (s)	20.1		8.7		28.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	87	18	48	75	12	27	1	41	18	3	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	105	0	0	300	301	96	316	304	81
Stage 1	-	-	-	-	-	-	118	118	-	177	177	-
Stage 2	-	-	-	-	-	-	182	183	-	139	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1486	-	-	652	612	960	637	609	979
Stage 1	-	-	-	-	-	-	887	798	-	825	753	-
Stage 2	-	-	-	-	-	-	820	748	-	864	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1486	-	-	625	586	960	589	583	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	586	-	589	583	-
Stage 1	-	-	-	-	-	-	880	792	-	818	727	-
Stage 2	-	-	-	-	-	-	784	723	-	819	785	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.7			10			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	785	1509	-	-	1486	-	-	653				
HCM Lane V/C Ratio	0.088	0.007	-	-	0.032	-	-	0.042				
HCM Control Delay (s)	10	7.4	0	-	7.5	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1				

DESIGN YEAR 2B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	27	0	0	75	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	75	0	0	46	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.6%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2B
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	27	0	0	75	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	75	0	0	46	0	0	10	0
Intersection Summary												

DESIGN YEAR 2B

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	25	0	0	69	0	0	0	43	0	9	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	25	0	0	69	0	0	43	0	0	9	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Reference Time (s)	1.6			4.3			3.2			0.6		
Adj Reference Time (s)	8.0			8.3			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Ref Time Seperate (s)	0.0	1.6		0.0	4.3		0.0	0.0		0.0	0.6	
Reference Time (s)	1.6	1.6		4.3	4.3		3.2	3.2		0.6	0.6	
Adj Reference Time (s)	8.0	8.0		8.3	8.3		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.3		8.0									
Split Option (s)	16.3		16.0									
Minimum (s)	8.3		8.0		16.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.6%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

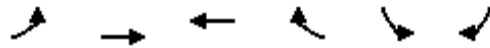
DESIGN YEAR 2B
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	75	0	0	0	46	0	10	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	27	0	0	107	102	27	125	102	75
Stage 1	-	-	-	-	-	-	27	27	-	75	75	-
Stage 2	-	-	-	-	-	-	80	75	-	50	27	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1524	-	-	1587	-	-	872	788	1048	849	788	986
Stage 1	-	-	-	-	-	-	990	873	-	934	833	-
Stage 2	-	-	-	-	-	-	929	833	-	963	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1524	-	-	1587	-	-	864	788	1048	812	788	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	864	788	-	812	788	-
Stage 1	-	-	-	-	-	-	990	873	-	934	833	-
Stage 2	-	-	-	-	-	-	918	833	-	921	873	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.6			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1048	1524	-	-	1587	-	-	788				
HCM Lane V/C Ratio	0.044	-	-	-	-	-	-	0.012				
HCM Control Delay (s)	8.6	0	-	-	0	-	-	9.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

DESIGN YEAR 2B
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	71	73	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	115	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.9%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2B
62: 2nd Ave SE & 7th St SE

01/15/2025



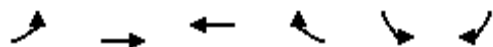
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

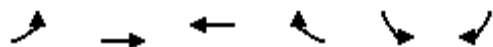
Area Type: Other

DESIGN YEAR 2B
62: 2nd Ave SE & 7th St SE

01/15/2025



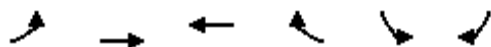
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	3	71	73	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	115	0	56	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2B
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	3	65	68	39	49	3
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	68	106	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.95	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1796	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1796		120	
Reference Time A (s)	0.0	6.5	7.1		51.4	
Adj Saturation B (vph)	0	0	1796		NA	
Reference Time B (s)	8.2	12.3	7.1		NA	
Reference Time (s)		6.5	7.1			
Adj Reference Time (s)		10.5	11.1			
Split Option						
Ref Time Combined (s)	0.0	4.3	7.1		3.4	
Ref Time Seperate (s)	0.2	4.1	4.5		3.3	
Reference Time (s)	4.3	4.3	7.1		3.4	
Adj Reference Time (s)	8.3	8.3	11.1		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	11.1		Err			
Split Option (s)	19.4		8.0			
Minimum (s)	11.1		8.0		19.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		15.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	54	31	39	2
Future Vol, veh/h	2	52	54	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	71	73	42	53	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	0 171 94
Stage 1	-	-	- - 94 -
Stage 2	-	-	- - 77 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1474	-	- - 819 963
Stage 1	-	-	- - 930 -
Stage 2	-	-	- - 946 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	- - 817 963
Mov Cap-2 Maneuver	-	-	- - 817 -
Stage 1	-	-	- - 928 -
Stage 2	-	-	- - 946 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	823
HCM Lane V/C Ratio	0.002	-	-	-	0.068
HCM Control Delay (s)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

DESIGN YEAR 2B

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Intersection Summary												

DESIGN YEAR 2B

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	39	4	5	28	5	0	0	0	8	0	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	51	0	0	38	0	0	0	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	4.8		0.0	3.0		0.0	0.0		0.0	1.3	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.6	11.3		8.3	10.4		0.0	0.0		8.5	9.1	
Reference Time (s)	4.8			3.0			0.0			1.3		
Adj Reference Time (s)	8.8			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	2.4		0.0	0.0		0.0	1.1	
Ref Time Seperate (s)	0.6	2.5		0.3	1.8		0.0	0.0		0.5	0.0	
Reference Time (s)	3.3	3.3		2.4	2.4		0.0	0.0		1.1	1.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.8		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.8		8.0		16.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	42	4	5	30	5	0	0	0	8	0	8
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	38	20	4	43	24	0	8	0	0	0	0	0
Stage 1	20	20	-	0	0	-	-	-	-	-	-	-
Stage 2	18	0	-	43	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	967	874	1080	960	869	-	1612	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	971	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	874	1080	922	869	-	1612	-	-	-	-	-
Mov Cap-2 Maneuver	-	874	-	922	869	-	-	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	921	875	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1612	-	-	-	-	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	-	-					
HCM Control Delay (s)	0	-	-	-	-	-	-					
HCM Lane LOS	A	-	-	-	-	-	-					
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-					

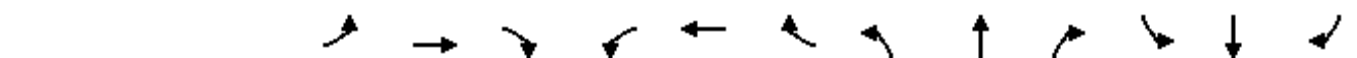
DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.989			0.978			0.927	
Flt Protected		0.977			0.991			0.973			0.983	
Satd. Flow (prot)	0	1805	0	0	1826	0	0	1773	0	0	1697	0
Flt Permitted		0.877			0.960			0.896			0.929	
Satd. Flow (perm)	0	1621	0	0	1769	0	0	1632	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	54	56	7	7	27	3	14	7	4	22	7	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	37	0	0	25	0	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.18			0.05			0.04			0.10	
Control Delay		9.2			8.1			7.7			5.6	
Queue Delay		0.0			0.0			0.0			0.0	

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		9.2			8.1			7.7			5.6	
LOS		A			A			A			A	
Approach Delay		9.2			8.1			7.7			5.6	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.9

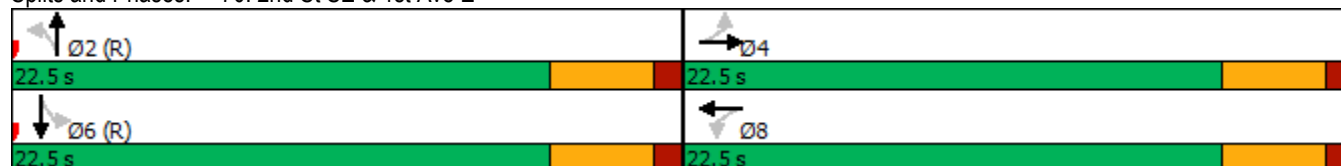
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.989			0.978			0.927	
Flt Protected		0.977			0.991			0.973			0.983	
Satd. Flow (prot)	0	1805	0	0	1826	0	0	1773	0	0	1697	0
Flt Permitted		0.877			0.960			0.896			0.929	
Satd. Flow (perm)	0	1621	0	0	1769	0	0	1632	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

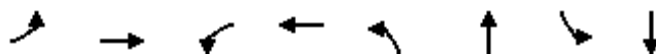
DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (vph)	40	41	5	5	20	2	10	5	3	16	5	25
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	54	56	7	7	27	3	14	7	4	22	7	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	37	0	0	25	0	0	63	0
Intersection Summary												

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	20	10	5	16	5
Future Volume (vph)	40	41	5	20	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.18		0.05		0.04		0.10
Control Delay		9.2		8.1		7.7		5.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.2		8.1		7.7		5.6
LOS		A		A		A		A
Approach Delay		9.2		8.1		7.7		5.6
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.9

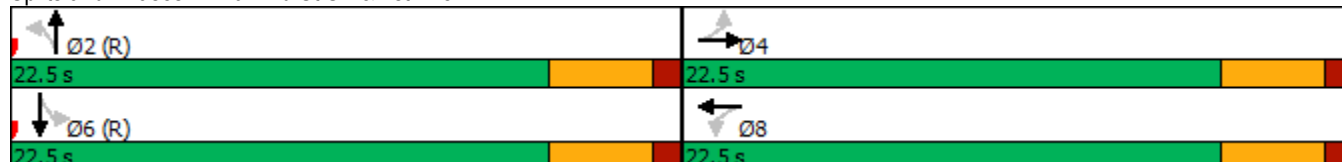
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

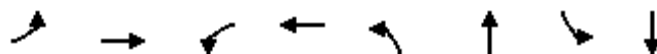
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

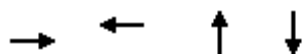
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	117	37	25	63
v/c Ratio	0.18	0.05	0.04	0.10
Control Delay	9.2	8.1	7.7	5.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.2	8.1	7.7	5.6
Queue Length 50th (ft)	17	5	3	4
Queue Length 95th (ft)	41	17	13	m20
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	652	709	655	662
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.05	0.04	0.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	51	6	6	25	3	13	6	4	20	6	31
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	108	0	0	34	0	0	23	0	0	58	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1861	0	0	1801	0	0	1715	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	860		0	1775		0	1106		0	1585	
Reference Time A (s)	0.0	15.0		0.0	2.3		0.0	2.4		0.0	4.4	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	11.3	15.0		8.4	10.2		8.8	9.5		9.3	12.0	
Reference Time (s)	15.0			2.3			2.4			4.4		
Adj Reference Time (s)	19.5			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	7.0		0.0	2.2		0.0	1.5		0.0	4.0	
Ref Time Seperate (s)	3.3	3.3		0.4	1.6		0.8	0.4		1.3	0.5	
Reference Time (s)	7.0	7.0		2.2	2.2		1.5	1.5		4.0	4.0	
Adj Reference Time (s)	11.5	11.5		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.5		9.5									
Split Option (s)	21.0		19.0									
Minimum (s)	19.5		9.5		29.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	27	3	14	7	4	22	7	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	355	39	173	572	57	434	208	99	280	118	340
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	640	888	97	194	1431	143	774	520	246	429	296	850
Grp Volume(v), veh/h	117	0	0	37	0	0	25	0	0	63	0	0
Grp Sat Flow(s),veh/h/ln	1625	0	0	1768	0	0	1540	0	0	1575	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0	1.0	0.0	0.0
Prop In Lane	0.46		0.06	0.19		0.08	0.56		0.16	0.35		0.54
Lane Grp Cap(c), veh/h	767	0	0	802	0	0	741	0	0	738	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	767	0	0	802	0	0	741	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.3	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	0.0	8.4	0.0	0.0	8.3	0.0	0.0	8.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		117			37			25			63	
Approach Delay, s/veh		9.1			8.4			8.3			8.6	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.4		3.8		3.0		2.6				
Green Ext Time (p_c), s		0.0		0.4		0.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

DESIGN YEAR 2B
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Future Volume (veh/h)	40	41	5	5	20	2	10	5	3	16	5	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	27	3	14	7	4	22	7	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	373	355	39	173	572	57	434	208	99	280	118	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.1	0.0	0.0	8.4	0.0	0.0	8.3	0.0	0.0	8.6	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	117				37		25				63	
Approach Delay, s/veh	9.1				8.4		8.3				8.6	
Approach LOS	A				A		A				A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4		6		8			
Case No	8.0				8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s	22.5				22.5		22.5		22.5			
Change Period (Y+Rc), s	4.5				4.5		4.5		4.5			
Max Green (Gmax), s	18.0				18.0		18.0		18.0			
Max Allow Headway (MAH), s	5.3				5.3		5.4		5.3			
Max Q Clear (g_c+I1), s	2.4				3.8		3.0		2.6			
Green Ext Time (g_e), s	0.0				0.4		0.2		0.1			
Prob of Phs Call (p_c)	1.00				1.00		1.00		1.00			
Prob of Max Out (p_x)	0.00				0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt	5				7		1		3			
Mvmt Sat Flow, veh/h	774				640		429		194			
Through Movement Data												
Assigned Mvmt	2				4		6		8			
Mvmt Sat Flow, veh/h	520				888		296		1431			
Right-Turn Movement Data												
Assigned Mvmt	12				14		16		18			
Mvmt Sat Flow, veh/h	246				97		850		143			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R		L+T+R		L+T+R		L+T+R					

DESIGN YEAR 2B
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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	25	0	117	0	63	0	37
Grp Sat Flow (s), veh/h/ln	0	1540	0	1625	0	1575	0	1768
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	1.8	0.0	1.0	0.0	0.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1388	0	1401	0	1426	0	1360
Shared LT Sat Flow (s_sh), veh/h/ln	0	1819	0	1828	0	1838	0	1853
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	17.0	0.0	17.4	0.0	17.6	0.0	16.2
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.6	0.0	2.3	0.0	3.6	0.0	7.3
Serve Time pre Blk (g_fs), s	0.0	0.4	0.0	1.8	0.0	1.0	0.0	0.6
Prop LT Inside Lane (P_L)	0.00	0.56	0.00	0.46	0.00	0.35	0.00	0.19
Lane Grp Cap (c), veh/h	0	741	0	767	0	738	0	802
V/C Ratio (X)	0.00	0.03	0.00	0.15	0.00	0.09	0.00	0.05
Avail Cap (c_a), veh/h	0	741	0	767	0	738	0	802
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.6	0.0	8.4	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.4	0.0	0.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	9.1	0.0	8.6	0.0	8.4
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	0.3	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.7	0.0	0.3	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.06	0.00	0.54	0.00	0.08
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

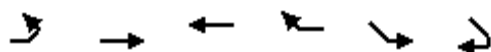
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.79	1.76	1.72	1.76
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	117	37	25	63
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.12	1.99	1.97	2.03
Bicycle LOS	B	B	B	B

DESIGN YEAR 2B

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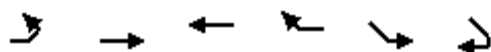


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Traffic Volume (vph)	0	96	0	0	0	0
Future Volume (vph)	0	96	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr t						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	130	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	130	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	9.6%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2B

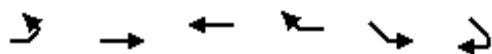
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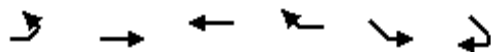


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Intersection Summary						

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	96	0	0	0	0
Future Volume (vph)	0	96	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	130	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	130	0	0	0	0
Intersection Summary						

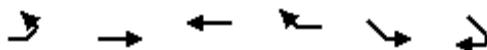


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2B

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	120	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	120	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	7.6	0.0	0.0		0.0
Adj Reference Time (s)	0.0	11.6	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	7.6	0.0		0.0	
Adj Saturation B (vph)	0	1900	0		NA	
Reference Time B (s)	0.0	7.6	0.0		NA	
Reference Time (s)		7.6	0.0			
Adj Reference Time (s)		11.6	8.0			
Split Option						
Ref Time Combined (s)	0.0	7.6	0.0		0.0	
Ref Time Seperate (s)	0.0	7.6	0.0		0.0	
Reference Time (s)	7.6	7.6	0.0		0.0	
Adj Reference Time (s)	11.6	11.6	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	11.6		NA			
Permitted Option (s)	11.6		Err			
Split Option (s)	11.6		0.0			
Minimum (s)	11.6		0.0	11.6		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		9.6%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.941			0.929			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	24	4	12	24	18	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	75	0	0	57	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.941			0.929			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	4	12	24	18	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	75	0	0	57	0	0	96	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	4	11	23	16	30	18	8	28	46	19	24
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	38	0	0	69	0	0	53	0	0	89	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1760	0	0	1747	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	992		0	1674		0	1567		0	1102	
Reference Time A (s)	0.0	4.5		0.0	4.9		0.0	4.0		0.0	9.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.5	10.6		9.5	12.7		9.2	11.7		11.1	14.0	
Reference Time (s)		4.5			4.9			4.0			9.7	
Adj Reference Time (s)		8.5			8.9			8.0			13.7	
Split Option												
Ref Time Combined (s)	0.0	2.6		0.0	4.7		0.0	3.7		0.0	6.0	
Ref Time Seperate (s)	1.5	0.3		1.5	1.1		1.2	0.5		3.1	1.3	
Reference Time (s)	2.6	2.6		4.7	4.7		3.7	3.7		6.0	6.0	
Adj Reference Time (s)	8.0	8.0		8.7	8.7		8.0	8.0		10.0	10.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.9		13.7									
Split Option (s)	16.7		18.0									
Minimum (s)	8.9		13.7		22.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.8%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

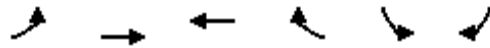
DESIGN YEAR 2B
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Future Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	4	12	24	18	33	19	8	30	50	20	26
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	51	0	0	16	0	0	164	157	10	160	147	35
Stage 1	-	-	-	-	-	-	58	58	-	83	83	-
Stage 2	-	-	-	-	-	-	106	99	-	77	64	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1555	-	-	1602	-	-	801	735	1071	806	744	1038
Stage 1	-	-	-	-	-	-	954	847	-	925	826	-
Stage 2	-	-	-	-	-	-	900	813	-	932	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1555	-	-	1602	-	-	747	712	1071	758	721	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	747	712	-	758	721	-
Stage 1	-	-	-	-	-	-	939	833	-	910	814	-
Stage 2	-	-	-	-	-	-	843	801	-	883	829	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.4			2.4			9.4			10.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	880	1555	-	-	1602	-	-	808				
HCM Lane V/C Ratio	0.065	0.016	-	-	0.015	-	-	0.119				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	10.1				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4				

DESIGN YEAR 2B
80: Beltline Rd & 8th St NW

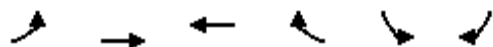
01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	30	44	25	8	24
Future Volume (vph)	13	30	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.899	
Flt Protected		0.985			0.988	
Satd. Flow (prot)	0	1835	1771	0	1655	0
Flt Permitted		0.985			0.988	
Satd. Flow (perm)	0	1835	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	18	41	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	94	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 19.5%						
ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2B
80: Beltline Rd & 8th St NW

01/15/2025



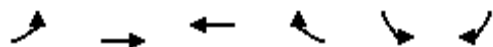
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.899	
Flt Protected		0.985			0.988	
Satd. Flow (prot)	0	1835	1771	0	1655	0
Flt Permitted		0.985			0.988	
Satd. Flow (perm)	0	1835	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

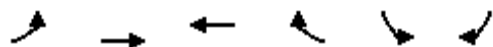
Area Type: Other

DESIGN YEAR 2B
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	30	44	25	8	24
Future Volume (vph)	13	30	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	18	41	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	59	94	0	44	0
Intersection Summary						

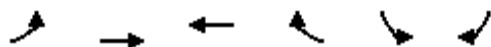


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2B

80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	16	38	55	31	10	30
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	54	86	0	40	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1871	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	330	1797		111	
Reference Time A (s)	0.0	19.6	5.8		43.2	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	9.1	11.4	5.8		NA	
Reference Time (s)		11.4	5.8			
Adj Reference Time (s)		15.4	9.8			
Split Option						
Ref Time Combined (s)	0.0	3.4	5.8		2.9	
Ref Time Seperate (s)	1.1	2.4	3.7		0.7	
Reference Time (s)	3.4	3.4	5.8		2.9	
Adj Reference Time (s)	8.0	8.0	9.8		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	15.4		Err			
Split Option (s)	17.8		8.0			
Minimum (s)	15.4		8.0		23.4	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		19.5%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B
80: Beltline Rd & 8th St NW

01/15/2025

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	30	44	25	8	24
Future Vol, veh/h	13	30	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	41	60	34	11	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	94	0	-	0	154	77
Stage 1	-	-	-	-	77	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1500	-	-	-	838	984
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1500	-	-	-	828	984
Mov Cap-2 Maneuver	-	-	-	-	828	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	946	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1500	-	-	-	940	
HCM Lane V/C Ratio	0.012	-	-	-	0.046	
HCM Control Delay (s)	7.4	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

DESIGN YEAR 2B
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.963			0.937			0.902	
Flt Protected		0.998			0.994			0.977			0.993	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1668	0
Flt Permitted		0.998			0.994			0.977			0.993	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1668	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	3	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.1%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.963			0.937			0.902	
Flt Protected		0.998			0.994			0.977			0.993	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1668	0
Flt Permitted		0.998			0.994			0.977			0.993	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1668	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	2	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	3	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	22	0
Intersection Summary												

DESIGN YEAR 2B

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	99	1	15	81	36	6	1	6	3	3	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	133	0	0	14	0	0	20	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.88	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1676	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1732			0	1010			0	654	0	1633
Reference Time A (s)	0.0	7.2			0.0	15.7			0.0	2.5	0.0	1.5
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	8.2	14.6			9.0	16.8			8.4	9.0	8.2	9.4
Reference Time (s)	7.2				15.7				2.5		1.5	
Adj Reference Time (s)	11.2				19.7				8.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	6.6			0.0	8.8			0.0	1.0	0.0	1.4
Ref Time Seperate (s)	0.2	6.2			1.0	5.4			0.4	0.1	0.2	0.2
Reference Time (s)	6.6	6.6			8.8	8.8			1.0	1.0	1.4	1.4
Adj Reference Time (s)	10.6	10.6			12.8	12.8			8.0	8.0	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.7		8.0									
Split Option (s)	23.4		16.0									
Minimum (s)	19.7		8.0		27.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	2	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	2	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	1	16	88	39	7	1	7	3	3	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	108	0	0	265	275	108	260	256	108
Stage 1	-	-	-	-	-	-	116	116	-	140	140	-
Stage 2	-	-	-	-	-	-	149	159	-	120	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1483	-	-	688	632	946	693	648	946
Stage 1	-	-	-	-	-	-	889	800	-	863	781	-
Stage 2	-	-	-	-	-	-	854	766	-	884	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1483	-	-	666	623	946	679	638	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	679	638	-
Stage 1	-	-	-	-	-	-	886	798	-	860	772	-
Stage 2	-	-	-	-	-	-	826	757	-	874	798	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.8			9.3		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	764	1459	-	-	1483	-	-	853				
HCM Lane V/C Ratio	0.02	0.003	-	-	0.011	-	-	0.025				
HCM Control Delay (s)	9.8	7.5	0	-	7.5	0	-	9.3				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.975			0.939			0.939	
Flt Protected		0.981			0.999			0.973			0.982	
Satd. Flow (prot)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Flt Permitted		0.981			0.999			0.973			0.982	
Satd. Flow (perm)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	4	15	1	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	66	0	0	44	0	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.975			0.939			0.939	
Flt Protected		0.981			0.999			0.973			0.982	
Satd. Flow (prot)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Flt Permitted		0.981			0.999			0.973			0.982	
Satd. Flow (perm)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	4	15	1	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	66	0	0	44	0	0	44	0
Intersection Summary												

DESIGN YEAR 2B

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

96: 5th St NW & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	4	14	1	49	11	23	0	19	15	8	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	29	0	0	61	0	0	41	0	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1729	0	0	1846	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	339			0	1838			0	1099		
Reference Time A (s)	0.0	10.2			0.0	4.0			0.0	4.5		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	8.7	10.0			8.1	12.0			9.5	10.9		
Reference Time (s)	10.0				4.0				4.5			
Adj Reference Time (s)	14.0				8.0				8.5			
Split Option												
Ref Time Combined (s)	0.0	2.0			0.0	4.0			0.0	2.9		
Ref Time Seperate (s)	0.7	0.3			0.1	3.2			1.5	0.0		
Reference Time (s)	2.0	2.0			4.0	4.0			2.9	2.9		
Adj Reference Time (s)	8.0	8.0			8.0	8.0			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.0		8.5									
Split Option (s)	16.0		16.0									
Minimum (s)	14.0		8.5		22.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.8%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	4	15	1	53	12	24	0	20	16	8	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	19	0	0	111	103	12	107	104	59
Stage 1	-	-	-	-	-	-	36	36	-	61	61	-
Stage 2	-	-	-	-	-	-	75	67	-	46	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1597	-	-	867	787	1069	872	786	1007
Stage 1	-	-	-	-	-	-	980	865	-	950	844	-
Stage 2	-	-	-	-	-	-	934	839	-	968	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1597	-	-	837	780	1069	849	779	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	837	780	-	849	779	-
Stage 1	-	-	-	-	-	-	972	858	-	942	843	-
Stage 2	-	-	-	-	-	-	905	838	-	942	852	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.1			9.1			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	929	1537	-	-	1597	-	-	898				
HCM Lane V/C Ratio	0.048	0.008	-	-	0.001	-	-	0.05				
HCM Control Delay (s)	9.1	7.4	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

DESIGN YEAR 2B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Future Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.981						0.953	
Flt Protected		0.984									0.968	
Satd. Flow (prot)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Flt Permitted		0.984									0.968	
Satd. Flow (perm)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	61	98	27	0	94	15	0	11	0	77	0	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	109	0	0	11	0	0	118	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	35.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.981						0.953	
Flt Protected		0.984									0.968	
Satd. Flow (prot)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Flt Permitted		0.984									0.968	
Satd. Flow (perm)	0	1796	0	0	1827	0	0	1863	0	0	1718	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Future Volume (vph)	45	72	20	0	69	11	0	8	0	57	0	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	61	98	27	0	94	15	0	11	0	77	0	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	109	0	0	11	0	0	118	0
Intersection Summary												

DESIGN YEAR 2B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	90	25	0	86	14	0	10	0	71	0	38
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	171	0	0	100	0	0	10	0	0	109	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1828	0	0	1861	0	0	1900	0	0	1743	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	300		0	1861		0	1900		0	159	
Reference Time A (s)	0.0	68.5		0.0	6.4		0.0	0.6		0.0	82.2	
Adj Saturation B (vph)	0	0		0	1861		0	1900		0	0	
Reference Time B (s)	11.7	19.2		0.0	6.4		0.0	0.6		12.7	15.5	
Reference Time (s)		19.2			6.4			0.6			15.5	
Adj Reference Time (s)		23.2			10.4			8.0			19.5	
Split Option												
Ref Time Combined (s)	0.0	11.2		0.0	6.4		0.0	0.6		0.0	7.5	
Ref Time Seperate (s)	3.7	5.9		0.0	5.6		0.0	0.6		4.7	0.0	
Reference Time (s)	11.2	11.2		6.4	6.4		0.6	0.6		7.5	7.5	
Adj Reference Time (s)	15.2	15.2		10.4	10.4		8.0	8.0		11.5	11.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	23.2		19.5									
Split Option (s)	25.7		19.5									
Minimum (s)	23.2		19.5		42.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	35.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	3.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	186	109	11	118
Demand Flow Rate, veh/h	190	111	11	121
Vehicles Circulating, veh/h	79	73	241	96
Vehicles Exiting, veh/h	138	179	28	88
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.1	3.6	3.5	3.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	190	111	11	121
Cap Entry Lane, veh/h	1273	1281	1079	1251
Entry HV Adj Factor	0.979	0.983	0.980	0.975
Flow Entry, veh/h	186	109	11	118
Cap Entry, veh/h	1246	1259	1058	1220
V/C Ratio	0.149	0.087	0.010	0.097
Control Delay, s/veh	4.1	3.6	3.5	3.7
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

DESIGN YEAR 2B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.965			0.919			0.992	
Flt Protected		0.991			0.968			0.998			0.971	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Flt Permitted		0.991			0.968			0.998			0.971	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	16	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.1%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.965			0.919			0.992	
Flt Protected		0.991			0.968			0.998			0.971	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Flt Permitted		0.991			0.968			0.998			0.971	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	16	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	48	0
Intersection Summary												

DESIGN YEAR 2B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	6	6	81	9	31	5	53	85	26	15	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	121	0	0	143	0	0	44	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1827	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1802		0	579		0	1737		0	289	
Reference Time A (s)	0.0	1.0		0.0	25.1		0.0	9.8		0.0	18.2	
Adj Saturation B (vph)	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	8.2	9.0		13.4	16.2		8.3	17.9		NA	NA	
Reference Time (s)	1.0			16.2			9.8			18.2		
Adj Reference Time (s)	8.0			20.2			13.8			22.2		
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	8.2		0.0	9.9		0.0	2.9	
Ref Time Seperate (s)	0.2	0.4		5.4	0.6		0.3	3.7		1.7	1.0	
Reference Time (s)	1.0	1.0		8.2	8.2		9.9	9.9		2.9	2.9	
Adj Reference Time (s)	8.0	8.0		12.2	12.2		13.9	13.9		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.2		22.2									
Split Option (s)	20.2		21.9									
Minimum (s)	20.2		21.9		42.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	35.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	7	88	10	34	5	57	92	29	16	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	211	235	18	196	190	103	19	0	0	149	0	0
Stage 1	76	76	-	113	113	-	-	-	-	-	-	-
Stage 2	135	159	-	83	77	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	746	666	1061	763	705	952	1597	-	-	1432	-	-
Stage 1	933	832	-	892	802	-	-	-	-	-	-	-
Stage 2	868	766	-	925	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	699	651	1061	739	689	952	1597	-	-	1432	-	-
Mov Cap-2 Maneuver	699	651	-	739	689	-	-	-	-	-	-	-
Stage 1	930	815	-	889	800	-	-	-	-	-	-	-
Stage 2	825	764	-	893	814	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.6	0.3	4.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	787 780	1432	-	-
HCM Lane V/C Ratio	0.003	-	-	0.021 0.169	0.02	-	-
HCM Control Delay (s)	7.3	0	-	9.7 10.6	7.6	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.6	0.1	-	-

DESIGN YEAR 2B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	90	62	32	24	13
Future Volume (vph)	53	90	62	32	24	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.915				0.952	
Flt Protected	0.982				0.968	
Satd. Flow (prot)	1674	0	0	1803	1773	0
Flt Permitted	0.982				0.968	
Satd. Flow (perm)	1674	0	0	1803	1773	0
Link Speed (mph)	30				30	30
Link Distance (ft)	1170				142	1289
Travel Time (s)	26.6				3.2	29.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	122	84	43	33	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	194	0	0	127	51	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12				0	0
Link Offset(ft)	0				0	0
Crosswalk Width(ft)	16				16	16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop				Free	Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.3%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.915				0.952	
Flt Protected	0.982			0.968		
Satd. Flow (prot)	1674	0	0	1803	1773	0
Flt Permitted	0.982			0.968		
Satd. Flow (perm)	1674	0	0	1803	1773	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

DESIGN YEAR 2B
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	90	62	32	24	13
Future Volume (vph)	53	90	62	32	24	13
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	72	122	84	43	33	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	194	0	0	127	51	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2B
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	66	113	78	40	30	16
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	179	0	0	118	46	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.89	0.85	0.95	0.97	0.95	0.85
Saturated Flow (vph)	1689	0	0	1837	1800	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0		0.0			
Adj Reference Time (s)	0.0		0.0			
Permitted Option						
Adj Saturation A (vph)	113	0		166	1800	
Reference Time A (s)	190.5	0.0		84.7	3.1	
Adj Saturation B (vph)	NA	0		0	1800	
Reference Time B (s)	NA	13.2		15.7	3.1	
Reference Time (s)				15.7	3.1	
Adj Reference Time (s)				19.7	8.0	
Split Option						
Ref Time Combined (s)	12.7	0.0		7.7	3.1	
Ref Time Seperate (s)	4.7	5.2		2.5	2.0	
Reference Time (s)	12.7	7.7		7.7	3.1	
Adj Reference Time (s)	16.7	11.7		11.7	8.0	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	19.7				
Split Option (s)	16.7	19.7				
Minimum (s)	16.7	19.7		36.4		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	30.3%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 7.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 53 90 62 32 24 13

Future Vol, veh/h 53 90 62 32 24 13

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 72 122 84 43 33 18

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 253 42 51 0 - 0

Stage 1 42 - - - - -

Stage 2 211 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 736 1029 1555 - - -

Stage 1 980 - - - - -

Stage 2 824 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 696 1029 1555 - - -

Mov Cap-2 Maneuver 696 - - - - -

Stage 1 926 - - - - -

Stage 2 824 - - - - -

Approach EB NB SB

HCM Control Delay, s 10.3 4.9 0

HCM LOS B

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1555 - 874 - -

HCM Lane V/C Ratio 0.054 - 0.222 - -

HCM Control Delay (s) 7.4 0 10.3 - -

HCM Lane LOS A A B - -

HCM 95th %tile Q(veh) 0.2 - 0.8 - -

DESIGN YEAR 2B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.999			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	82	42	34	71	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	106	0	0	79	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.6%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.954			0.999			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	82	42	34	71	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	106	0	0	79	0	0	2	0
Intersection Summary												

DESIGN YEAR 2B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	75	39	31	65	1	30	0	43	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	114	0	0	98	0	0	73	0	0	3	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1803	0	0	1866	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1803		0	313		0	1443		0	1233	
Reference Time A (s)	0.0	7.6		0.0	37.4		0.0	6.0		0.0	0.2	
Adj Saturation B (vph)	0	1803		0	0		0	0		0	0	
Reference Time B (s)	0.0	7.6		10.1	14.3		10.0	13.1		8.1	8.2	
Reference Time (s)	7.6			14.3			6.0			0.2		
Adj Reference Time (s)	11.6			18.3			10.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	7.6		0.0	6.3		0.0	5.1		0.0	0.2	
Ref Time Seperate (s)	0.0	5.0		2.1	4.1		2.0	0.0		0.1	0.0	
Reference Time (s)	7.6	7.6		6.3	6.3		5.1	5.1		0.2	0.2	
Adj Reference Time (s)	11.6	11.6		10.3	10.3		9.1	9.1		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.3		10.0									
Split Option (s)	21.8		17.1									
Minimum (s)	18.3		10.0		28.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.6%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	42	34	71	1	33	0	46	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	124	0	0	243	243	103	266	264	72
Stage 1	-	-	-	-	-	-	103	103	-	140	140	-
Stage 2	-	-	-	-	-	-	140	140	-	126	124	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1463	-	-	711	659	952	687	641	990
Stage 1	-	-	-	-	-	-	903	810	-	863	781	-
Stage 2	-	-	-	-	-	-	863	781	-	878	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1463	-	-	697	643	952	642	626	990
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	643	-	642	626	-
Stage 1	-	-	-	-	-	-	903	810	-	863	762	-
Stage 2	-	-	-	-	-	-	841	762	-	835	793	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.8			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	827	1528	-	-	1463	-	-	779				
HCM Lane V/C Ratio	0.095	-	-	-	0.023	-	-	0.003				
HCM Control Delay (s)	9.8	0	-	-	7.5	0	-	9.6				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0				

DESIGN YEAR 2B

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Future Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.931			0.865			0.963	
Flt Protected		0.964									0.965	
Satd. Flow (prot)	0	1735	0	0	1734	0	0	1611	0	0	1731	0
Flt Permitted		0.964									0.965	
Satd. Flow (perm)	0	1735	0	0	1734	0	0	1611	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	0	4	0	63	65	0	0	4	98	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	128	0	0	4	0	0	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.9%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.931			0.865			0.963	
Flt Protected		0.964									0.965	
Satd. Flow (prot)	0	1735	0	0	1734	0	0	1611	0	0	1731	0
Flt Permitted		0.964									0.965	
Satd. Flow (perm)	0	1735	0	0	1734	0	0	1611	0	0	1731	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Future Volume (vph)	9	0	3	0	46	48	0	0	3	72	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	0	4	0	63	65	0	0	4	98	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	128	0	0	4	0	0	135	0
Intersection Summary												

DESIGN YEAR 2B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	0	4	0	58	60	0	0	4	90	0	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	118	0	0	4	0	0	124	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.85	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1760	0	0	1754	0	0	1615	0	0	1756	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	144		0	1754		0	1615		0	147	
Reference Time A (s)	0.0	12.5		0.0	8.0		0.0	0.3		0.0	100.9	
Adj Saturation B (vph)	0	0		0	1754		0	1615		0	0	
Reference Time B (s)	8.7	9.0		0.0	8.0		0.0	0.3		14.0	16.5	
Reference Time (s)	9.0			8.0			0.3			16.5		
Adj Reference Time (s)	13.0			12.0			8.0			20.5		
Split Option												
Ref Time Combined (s)	0.0	1.0		0.0	8.0		0.0	0.3		0.0	8.5	
Ref Time Seperate (s)	0.7	0.0		0.0	3.9		0.0	0.0		6.0	0.0	
Reference Time (s)	1.0	1.0		8.0	8.0		0.3	0.3		8.5	8.5	
Adj Reference Time (s)	8.0	8.0		12.0	12.0		8.0	8.0		12.5	12.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.0		20.5									
Split Option (s)	20.0		20.5									
Minimum (s)	13.0		20.5		33.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.9%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	3	0	46	48	0	0	3	72	0	27
Future Vol, veh/h	9	0	3	0	46	48	0	0	3	72	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	4	0	63	65	0	0	4	98	0	37
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	128	0	0	4	0	0	140	154	2	124	124	96
Stage 1	-	-	-	-	-	-	26	26	-	96	96	-
Stage 2	-	-	-	-	-	-	114	128	-	28	28	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1458	-	-	1618	-	-	830	738	1082	850	766	960
Stage 1	-	-	-	-	-	-	992	874	-	911	815	-
Stage 2	-	-	-	-	-	-	891	790	-	989	872	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1458	-	-	1618	-	-	793	732	1082	842	760	960
Mov Cap-2 Maneuver	-	-	-	-	-	-	793	732	-	842	760	-
Stage 1	-	-	-	-	-	-	984	867	-	904	815	-
Stage 2	-	-	-	-	-	-	857	790	-	977	865	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.6			0			8.3			9.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1082	1458	-	-	1618	-	-	871				
HCM Lane V/C Ratio	0.004	0.008	-	-	-	-	-	0.154				
HCM Control Delay (s)	8.3	7.5	0	-	0	-	-	9.9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.5				

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected					0.950			0.994				
Satd. Flow (prot)	0	0	0	0	1770	0	0	1852	0	0	1611	0
Flt Permitted					0.950			0.994				
Satd. Flow (perm)	0	0	0	0	1770	0	0	1852	0	0	1611	0
Link Speed (mph)	30				60			30	30			
Link Distance (ft)	364				4320			808	1371			
Travel Time (s)	8.3				49.1			18.4	31.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	0	0	16	0	0	18	144	0	0	0	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	16	0	0	162	0	0	122	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0			0	0			
Link Offset(ft)	0				0			0	0			
Crosswalk Width(ft)	16				16			16	16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Stop				Stop		Free				Free	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 24.5%					ICU Level of Service A							
Analysis Period (min) 15												

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt											0.865	
Flt Protected					0.950			0.994				
Satd. Flow (prot)	0	0	0	0	1770	0	0	1852	0	0	1611	0
Flt Permitted					0.950			0.994				
Satd. Flow (perm)	0	0	0	0	1770	0	0	1852	0	0	1611	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	

Intersection Summary

Area Type: Other

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	0	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	16	0	0	18	144	0	0	0	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	16	0	0	162	0	0	122	0
Intersection Summary												

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	0	0	16	133	0	0	0	113
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	15	0	0	149	0	0	113	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.99	0.85	0.95	0.85	0.85
Saturated Flow (vph)	0	0	0	0	1805	0	0	1890	0	0	1615	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	120		0	722		0	1615	
Reference Time A (s)	0.0	0.0		0.0	15.0		0.0	24.7		0.0	8.4	
Adj Saturation B (vph)	0	0		0	0		0	0		NA	NA	
Reference Time B (s)	0.0	0.0		9.0	9.0		9.1	17.4		NA	NA	
Reference Time (s)	0.0			9.0			17.4			8.4		
Adj Reference Time (s)	8.0			13.0			21.4			12.4		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	1.0		0.0	9.4		0.0	8.4	
Ref Time Seperate (s)	0.0	0.0		1.0	0.0		1.1	8.4		0.0	0.0	
Reference Time (s)	0.0	0.0		1.0	1.0		9.4	9.4		8.4	8.4	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		13.4	13.4		12.4	12.4	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.0		21.4									
Split Option (s)	8.0		25.8									
Minimum (s)	8.0		21.4		29.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.5%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B

111: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	0	13	106	0	0	0	90
Future Vol, veh/h	0	0	0	12	0	0	13	106	0	0	0	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	0	0	18	144	0	0	0	122

Major/Minor	Minor1	Major1	Major2									
Conflicting Flow All	241	302	144	122	0	-	-	-	-	0		
Stage 1	180	180	-	-	-	-	-	-	-	-		
Stage 2	61	122	-	-	-	-	-	-	-	-		
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	-		
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	-		
Pot Cap-1 Maneuver	747	611	903	1465	-	0	0	-	-	-		
Stage 1	851	750	-	-	-	0	0	-	-	-		
Stage 2	962	795	-	-	-	0	0	-	-	-		
Platoon blocked, %					-			-		-		
Mov Cap-1 Maneuver	737	0	903	1465	-	-	-	-	-	-		
Mov Cap-2 Maneuver	737	0	-	-	-	-	-	-	-	-		
Stage 1	840	0	-	-	-	-	-	-	-	-		
Stage 2	962	0	-	-	-	-	-	-	-	-		

Approach	WB	NB	SB
HCM Control Delay, s	10	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBTWBLn1	SBT	SBR
Capacity (veh/h)	1465	-	737	-
HCM Lane V/C Ratio	0.012	-	0.022	-
HCM Control Delay (s)	7.5	0	10	-
HCM Lane LOS	A	A	B	-
HCM 95th %tile Q(veh)	0	-	0.1	-

DESIGN YEAR 2B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	9	65	9	20	33
Future Volume (vph)	32	9	65	9	20	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.971		0.984			
Flt Protected	0.962					0.982
Satd. Flow (prot)	1740	0	1833	0	0	1829
Flt Permitted	0.962					0.982
Satd. Flow (perm)	1740	0	1833	0	0	1829
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	43	12	88	12	27	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	100	0	0	72
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.2%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2B
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.971		0.984			
Flt Protected	0.962					0.982
Satd. Flow (prot)	1740	0	1833	0	0	1829
Flt Permitted	0.962					0.982
Satd. Flow (perm)	1740	0	1833	0	0	1829
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	32	9	65	9	20	33
Future Volume (vph)	32	9	65	9	20	33
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	43	12	88	12	27	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	100	0	0	72
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2B
114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	40	11	81	11	25	41
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	51	0	93	0	0	66
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.93	0.85	0.98	0.85	0.95	0.98
Saturated Flow (vph)	1766	0	1865	0	0	1864
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	118		1865		0	272
Reference Time A (s)	52.2		6.0		0.0	29.3
Adj Saturation B (vph)	NA		1865		0	0
Reference Time B (s)	NA		6.0		9.7	12.3
Reference Time (s)			6.0			12.3
Adj Reference Time (s)			10.0			16.3
Split Option						
Ref Time Combined (s)	3.5		6.0		0.0	4.3
Ref Time Seperate (s)	2.7		5.2		1.7	2.6
Reference Time (s)	3.5		6.0		4.3	4.3
Adj Reference Time (s)	8.0		10.0		8.3	8.3
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		16.3			
Split Option (s)	8.0		18.2			
Minimum (s)	8.0		16.3		24.3	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	20.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	9	65	9	20	33
Future Vol, veh/h	32	9	65	9	20	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	12	88	12	27	45

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	193 94	0	0 100 0
Stage 1	94	-	- - -
Stage 2	99	-	- - -
Critical Hdwy	6.42 6.22	-	- 4.12 -
Critical Hdwy Stg 1	5.42	-	- - -
Critical Hdwy Stg 2	5.42	-	- - -
Follow-up Hdwy	3.518 3.318	-	- 2.218 -
Pot Cap-1 Maneuver	796 963	-	- 1493 -
Stage 1	930	-	- - -
Stage 2	925	-	- - -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	781 963	-	- 1493 -
Mov Cap-2 Maneuver	781	-	- - -
Stage 1	930	-	- - -
Stage 2	907	-	- - -

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	2.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 815	1493	-
HCM Lane V/C Ratio	-	- 0.068	0.018	-
HCM Control Delay (s)	-	- 9.7	7.5	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 0.2	0.1	-

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.937				
Flt Protected		0.954									0.960	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1788	0
Flt Permitted		0.954									0.960	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1788	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	15	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	18	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.4%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994						0.937				
Flt Protected		0.954									0.960	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1788	0
Flt Permitted		0.954									0.960	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1788	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	11	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	15	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	18	0
Intersection Summary												

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	0	6	0	0	0	0	8	6	14	3	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	148	0	0	0	0	0	14	0	0	16	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1820	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	123		0	0		0	1770		0	136	
Reference Time A (s)	0.0	143.6		0.0	0.0		0.0	0.9		0.0	14.3	
Adj Saturation B (vph)	0	0		0	0		0	1770		0	0	
Reference Time B (s)	17.4	17.8		0.0	0.0		0.0	0.9		8.9	9.1	
Reference Time (s)		17.8			0.0			0.9			9.1	
Adj Reference Time (s)		21.8			8.0			8.0			13.1	
Split Option												
Ref Time Combined (s)	0.0	9.8		0.0	0.0		0.0	0.9		0.0	1.1	
Ref Time Seperate (s)	9.4	0.0		0.0	0.0		0.0	0.5		0.9	0.2	
Reference Time (s)	9.8	9.8		0.0	0.0		0.9	0.9		1.1	1.1	
Adj Reference Time (s)	13.8	13.8		0.0	0.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.8		13.1									
Split Option (s)	13.8		16.0									
Minimum (s)	13.8		13.1		26.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization			22.4%		ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B

118: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	11	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	11	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	0	7	0	0	0	0	8	7	15	3	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	45	48	3	-	0	0	15	0	0
Stage 1	33	33	-	-	-	-	-	-	-
Stage 2	12	15	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	965	844	1081	0	-	-	1603	-	0
Stage 1	989	868	-	0	-	-	-	-	0
Stage 2	1011	883	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	956	0	1081	-	-	-	1603	-	-
Mov Cap-2 Maneuver	956	0	-	-	-	-	-	-	-
Stage 1	989	0	-	-	-	-	-	-	-
Stage 2	1002	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	6.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	961	1603	-
HCM Lane V/C Ratio	-	-	0.167	0.009	-
HCM Control Delay (s)	-	-	9.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

DESIGN YEAR 2B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.966			0.977			0.980	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	4	5	1	68	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	92	0	0	30	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.8%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.966			0.977			0.980	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	4	5	1	68	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	92	0	0	30	0	0	20	0
Intersection Summary												

DESIGN YEAR 2B

124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	4	5	1	63	21	19	5	5	5	11	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	19	0	0	85	0	0	29	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1827	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	244		0	1830		0	829		0	1839	
Reference Time A (s)	0.0	9.2		0.0	5.6		0.0	4.2		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	9.3		8.1	13.6		9.2	9.9		8.3	9.2	
Reference Time (s)	9.2			5.6			4.2			1.2		
Adj Reference Time (s)	13.2			9.6			8.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	5.6		0.0	1.9		0.0	1.2	
Ref Time Seperate (s)	0.7	0.3		0.1	4.1		1.2	0.3		0.3	0.7	
Reference Time (s)	1.3	1.3		5.6	5.6		1.9	1.9		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		9.6	9.6		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.2		8.2									
Split Option (s)	17.6		16.0									
Minimum (s)	13.2		8.2		21.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.8%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	5	1	68	23	20	5	5	5	12	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	9	0	0	118	122	7	116	113	80
Stage 1	-	-	-	-	-	-	29	29	-	82	82	-
Stage 2	-	-	-	-	-	-	89	93	-	34	31	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1504	-	-	1611	-	-	858	768	1075	861	777	980
Stage 1	-	-	-	-	-	-	988	871	-	926	827	-
Stage 2	-	-	-	-	-	-	918	818	-	982	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1504	-	-	1611	-	-	840	762	1075	847	771	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	840	762	-	847	771	-
Stage 1	-	-	-	-	-	-	981	865	-	920	826	-
Stage 2	-	-	-	-	-	-	901	817	-	964	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			9.4			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	857	1504	-	-	1611	-	-	814				
HCM Lane V/C Ratio	0.036	0.007	-	-	0.001	-	-	0.025				
HCM Control Delay (s)	9.4	7.4	0	-	7.2	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.973			0.931			0.972	
Flt Protected		0.978			0.998			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	27	20	12	1	15	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	20	0	0	39	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.7%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2B

125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.973			0.931			0.972	
Flt Protected		0.978			0.998			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	27	20	12	1	15	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	20	0	0	39	0	0	24	0
Intersection Summary												

DESIGN YEAR 2B
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	19	11	1	14	4	8	10	19	13	5	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	55	0	0	19	0	0	36	0	0	23	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1837	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	485		0	1822		0	1701		0	785	
Reference Time A (s)	0.0	13.6		0.0	1.2		0.0	2.6		0.0	3.4	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.7	11.7		8.1	9.2		8.5	10.5		8.8	9.5	
Reference Time (s)	11.7			1.2			2.6			3.4		
Adj Reference Time (s)	15.7			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.7		0.0	1.2		0.0	2.5		0.0	1.5	
Ref Time Seperate (s)	1.7	1.3		0.1	0.9		0.5	0.7		0.8	0.3	
Reference Time (s)	3.7	3.7		1.2	1.2		2.5	2.5		1.5	1.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.7		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	15.7		8.0		23.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.7%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2B
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	20	12	1	15	4	8	11	20	14	5	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	7%	56%
Vol Thru, %	28%	34%	73%	22%
Vol Right, %	52%	20%	20%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	15	18
LT Vol	6	20	1	10
Through Vol	8	15	11	4
RT Vol	15	9	3	4
Lane Flow Rate	39	60	20	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.067	0.023	0.028
Departure Headway (Hd)	3.822	4.029	3.984	4.081
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	932	888	896	873
Service Time	1.864	2.058	2.021	2.124
HCM Lane V/C Ratio	0.042	0.068	0.022	0.027
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

DESIGN YEAR 2B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.7%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Intersection Summary												

DESIGN YEAR 2B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	38	56	4	3	0	65	8	13	3	16	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	115	0	0	6	0	0	85	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1745		0	710		0	451		0	1953	
Reference Time A (s)	0.0	7.9		0.0	1.1		0.0	22.6		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.4	15.9		8.2	8.4		12.3	13.7		8.2	9.2	
Reference Time (s)	7.9			1.1			13.7			1.2		
Adj Reference Time (s)	11.9			8.0			17.7			8.0		
Split Option												
Ref Time Combined (s)	0.0	7.9		0.0	0.4		0.0	5.7		0.0	1.2	
Ref Time Seperate (s)	1.4	2.6		0.2	0.2		4.3	0.5		0.2	1.0	
Reference Time (s)	7.9	7.9		0.4	0.4		5.7	5.7		1.2	1.2	
Adj Reference Time (s)	11.9	11.9		8.0	8.0		9.7	9.7		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.9		17.7									
Split Option (s)	19.9		17.7									
Minimum (s)	11.9		17.7		29.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	41	61	4	3	0	71	8	14	3	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	92	125	7	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.135	0.008	0.024
Departure Headway (Hd)	4.244	3.877	4.347	4.262
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	915	812	830
Service Time	2.3	1.943	2.434	2.338
HCM Lane V/C Ratio	0.11	0.137	0.009	0.024
HCM Control Delay	7.8	7.6	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0	0.1

DESIGN YEAR 2B

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936			0.940			0.933			0.990	
Flt Protected		0.992			0.976			0.989			0.960	
Satd. Flow (prot)	0	1730	0	0	1709	0	0	1719	0	0	1770	0
Flt Permitted		0.992			0.976			0.989			0.960	
Satd. Flow (perm)	0	1730	0	0	1709	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	14	34	43	63	7	56	33	39	71	94	11	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	126	0	0	143	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	32.4%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2B

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.936			0.940			0.933			0.990	
Flt Protected		0.992			0.976			0.989			0.960	
Satd. Flow (prot)	0	1730	0	0	1709	0	0	1719	0	0	1770	0
Flt Permitted		0.992			0.976			0.989			0.960	
Satd. Flow (perm)	0	1730	0	0	1709	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2B

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	46	5	41	24	29	52	69	8	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	34	43	63	7	56	33	39	71	94	11	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	126	0	0	143	0	0	113	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2B

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	31	40	58	6	51	30	36	65	86	10	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	84	0	0	115	0	0	131	0	0	104	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1751	0	0	1729	0	0	1739	0	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1715		0	673		0	1838		0	617	
Reference Time A (s)	0.0	5.9		0.0	20.5		0.0	8.6		0.0	20.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.8	13.7		11.8	16.0		10.0	17.1		13.7	14.9	
Reference Time (s)	5.9			16.0			8.6			14.9		
Adj Reference Time (s)	9.9			20.0			12.6			18.9		
Split Option												
Ref Time Combined (s)	0.0	5.7		0.0	8.0		0.0	9.1		0.0	6.9	
Ref Time Seperate (s)	0.8	2.2		3.8	0.5		2.0	2.5		5.7	0.7	
Reference Time (s)	5.7	5.7		8.0	8.0		9.1	9.1		6.9	6.9	
Adj Reference Time (s)	9.7	9.7		12.0	12.0		13.1	13.1		10.9	10.9	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.0		18.9									
Split Option (s)	21.7		24.0									
Minimum (s)	20.0		18.9		38.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	32.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	3.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	91	125	143	113
Demand Flow Rate, veh/h	93	127	146	115
Vehicles Circulating, veh/h	170	88	145	104
Vehicles Exiting, veh/h	49	203	118	111
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	3.7	4.1	3.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	93	127	146	115
Cap Entry Lane, veh/h	1160	1261	1190	1241
Entry HV Adj Factor	0.982	0.983	0.981	0.981
Flow Entry, veh/h	91	125	143	113
Cap Entry, veh/h	1139	1240	1167	1217
V/C Ratio	0.080	0.101	0.123	0.093
Control Delay, s/veh	3.8	3.7	4.1	3.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

DESIGN YEAR 2B

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1815		872			142
Travel Time (s)	41.3		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	280	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	14	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.5%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1815		872			142
Travel Time (s)	41.3		19.8			3.2

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	280	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	14	0	0	64
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2B

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	258	13	0	35	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	258	0	13	0	0	59
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	287.0		0.8		0.0	38.8
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.8		10.3	11.8
Reference Time (s)			0.8			11.8
Adj Reference Time (s)			8.0			15.8
Split Option						
Ref Time Combined (s)	19.1		0.8		0.0	3.8
Ref Time Seperate (s)	0.0		0.8		2.3	1.5
Reference Time (s)	19.1		0.8		3.8	3.8
Adj Reference Time (s)	23.1		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.8			
Split Option (s)	23.1		16.0			
Minimum (s)	23.1		15.8		39.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	32.5%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2B

167: 3rd St SW

01/15/2025

Intersection

Int Delay, s/veh 8.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	206	10	0	28	19
Future Vol, veh/h	0	206	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	280	14	0	38	26

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	116	14	0
Stage 1	14	-	-
Stage 2	102	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	880	1066	1604
Stage 1	1009	-	-
Stage 2	922	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	859	1066	1604
Mov Cap-2 Maneuver	859	-	-
Stage 1	1009	-	-
Stage 2	900	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 1066	1604	-
HCM Lane V/C Ratio	-	- 0.263	0.024	-
HCM Control Delay (s)	-	- 9.6	7.3	0
HCM Lane LOS	-	- A	A	A
HCM 95th %tile Q(veh)	-	- 1.1	0.1	-

Network Totals

Number of Intersections	35
Total Delay (hr)	19
Stops (#)	6677
Average Speed (mph)	27
Total Travel Time (hr)	121
Distance Traveled (mi)	3201
Fuel Consumed (gal)	181
Fuel Economy (mpg)	17.7
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.1

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	199	324	317	385	1225
Control Delay / Veh (s/v)	7	10	11	7	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	10	11	7	9
Total Delay (hr)	0	1	1	1	3
Stops / Veh	0.36	0.46	0.59	0.45	0.47
Stops (#)	71	149	186	172	578
Average Speed (mph)	23	14	21	24	22
Total Travel Time (hr)	2	2	3	4	11
Distance Traveled (mi)	40	24	70	99	233
Fuel Consumed (gal)	2	2	5	6	15
Fuel Economy (mpg)	17.2	9.7	15.2	17.7	15.5
CO Emissions (kg)	0.16	0.17	0.32	0.39	1.05
NOx Emissions (kg)	0.03	0.03	0.06	0.08	0.20
VOC Emissions (kg)	0.04	0.04	0.07	0.09	0.24
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	121	270	397	788
Control Delay / Veh (s/v)	12	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	1	0	2
Total Delay (hr)	0	0	0	1
Stops / Veh	1.00	0.28	0.00	0.25
Stops (#)	121	75	0	196
Average Speed (mph)	13	25	30	26
Total Travel Time (hr)	1	1	3	4
Distance Traveled (mi)	10	16	88	113
Fuel Consumed (gal)	1	1	4	6
Fuel Economy (mpg)	7.0	13.8	24.3	18.5
CO Emissions (kg)	0.10	0.08	0.25	0.43
NOx Emissions (kg)	0.02	0.02	0.05	0.08
VOC Emissions (kg)	0.02	0.02	0.06	0.10
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	137	137
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	0	0
Distance Traveled (mi)	10	10
Fuel Consumed (gal)	0	0
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.03	0.03
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserved Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	142	75	387	334	938
Control Delay / Veh (s/v)	4	8	11	13	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	8	11	13	10
Total Delay (hr)	0	0	1	1	3
Stops / Veh	0.24	0.53	0.62	0.70	0.58
Stops (#)	34	40	240	233	547
Average Speed (mph)	25	26	23	19	22
Total Travel Time (hr)	1	1	5	3	10
Distance Traveled (mi)	25	29	109	58	221
Fuel Consumed (gal)	1	2	7	5	14
Fuel Economy (mpg)	18.7	19.0	16.3	12.8	15.7
CO Emissions (kg)	0.09	0.11	0.47	0.32	0.99
NOx Emissions (kg)	0.02	0.02	0.09	0.06	0.19
VOC Emissions (kg)	0.02	0.02	0.11	0.07	0.23
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	116	22	92	230
Control Delay / Veh (s/v)	0	10	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.07	0.12
Stops (#)	0	22	6	28
Average Speed (mph)	30	22	30	28
Total Travel Time (hr)	0	0	1	1
Distance Traveled (mi)	15	5	16	35
Fuel Consumed (gal)	1	0	1	2
Fuel Economy (mpg)	NA	NA	NA	21.3
CO Emissions (kg)	0.04	0.02	0.05	0.11
NOx Emissions (kg)	0.01	0.00	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	266	77	281	624
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.12
Stops (#)	0	77	0	77
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	1	1	3
Distance Traveled (mi)	46	16	41	103
Fuel Consumed (gal)	2	1	2	5
Fuel Economy (mpg)	24.3	14.8	24.3	22.1
CO Emissions (kg)	0.13	0.08	0.12	0.33
NOx Emissions (kg)	0.03	0.01	0.02	0.06
VOC Emissions (kg)	0.03	0.02	0.03	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	77	4	377	335	793
Control Delay / Veh (s/v)	40	30	3	0	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	40	30	3	0	6
Total Delay (hr)	1	0	0	0	1
Stops / Veh	1.00	1.00	0.67	0.04	0.44
Stops (#)	77	4	253	13	347
Average Speed (mph)	22	15	17	30	23
Total Travel Time (hr)	2	0	1	1	4
Distance Traveled (mi)	53	1	14	32	100
Fuel Consumed (gal)	3	0	2	1	7
Fuel Economy (mpg)	16.5	NA	6.4	22.8	14.4
CO Emissions (kg)	0.23	0.01	0.16	0.10	0.49
NOx Emissions (kg)	0.04	0.00	0.03	0.02	0.09
VOC Emissions (kg)	0.05	0.00	0.04	0.02	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	82	204	246	368	900
Control Delay / Veh (s/v)	23	19	0	2	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	23	19	0	2	7
Total Delay (hr)	1	1	0	0	2
Stops / Veh	1.00	1.00	0.00	0.45	0.50
Stops (#)	82	204	0	166	452
Average Speed (mph)	14	20	30	25	22
Total Travel Time (hr)	1	3	1	1	7
Distance Traveled (mi)	14	68	36	35	152
Fuel Consumed (gal)	1	5	1	3	10
Fuel Economy (mpg)	9.8	14.4	24.3	13.8	15.0
CO Emissions (kg)	0.10	0.33	0.10	0.18	0.71
NOx Emissions (kg)	0.02	0.06	0.02	0.03	0.14
VOC Emissions (kg)	0.02	0.08	0.02	0.04	0.16
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	170	175	31	376
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.22	1.00	0.18
Stops (#)	0	38	31	69
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	3
Distance Traveled (mi)	56	6	12	74
Fuel Consumed (gal)	2	0	1	4
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.16	0.03	0.05	0.25
NOx Emissions (kg)	0.03	0.01	0.01	0.05
VOC Emissions (kg)	0.04	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	56	159	10	85	310
Control Delay / Veh (s/v)	11	11	0	0	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	11	0	0	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.00	0.08	0.72
Stops (#)	56	159	0	7	222
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	2	0	1	3
Distance Traveled (mi)	5	32	0	23	60
Fuel Consumed (gal)	1	3	0	1	4
Fuel Economy (mpg)	NA	12.5	NA	NA	14.4
CO Emissions (kg)	0.05	0.18	0.00	0.07	0.29
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.00	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	127	230	48	63	468
Control Delay / Veh (s/v)	8	9	8	8	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	9	8	8	9
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	127	230	48	63	468
Average Speed (mph)	27	21	24	24	24
Total Travel Time (hr)	3	2	1	1	6
Distance Traveled (mi)	79	41	13	18	150
Fuel Consumed (gal)	4	3	1	1	10
Fuel Economy (mpg)	18.9	12.1	NA	14.9	15.6
CO Emissions (kg)	0.29	0.24	0.06	0.08	0.67
NOx Emissions (kg)	0.06	0.05	0.01	0.02	0.13
VOC Emissions (kg)	0.07	0.06	0.01	0.02	0.16
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	125	457	461	1043
Control Delay / Veh (s/v)	19	3	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	19	3	0	4
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.64	0.00	0.40
Stops (#)	125	293	0	418
Average Speed (mph)	16	27	30	27
Total Travel Time (hr)	1	4	4	10
Distance Traveled (mi)	22	118	130	270
Fuel Consumed (gal)	2	7	5	14
Fuel Economy (mpg)	10.7	17.4	24.3	19.0
CO Emissions (kg)	0.15	0.47	0.37	0.99
NOx Emissions (kg)	0.03	0.09	0.07	0.19
VOC Emissions (kg)	0.03	0.11	0.09	0.23
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	107	124	63	26	320
Control Delay / Veh (s/v)	1	2	10	11	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	11	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.39	1.00	1.00	0.48
Stops (#)	15	48	63	26	152
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	2	1	1	0	3
Distance Traveled (mi)	47	22	18	1	87
Fuel Consumed (gal)	2	1	1	0	5
Fuel Economy (mpg)	23.1	18.1	14.6	NA	18.6
CO Emissions (kg)	0.14	0.09	0.08	0.02	0.33
NOx Emissions (kg)	0.03	0.02	0.02	0.00	0.06
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	25	69	42	9	145
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.35
Stops (#)	0	0	42	9	51
Average Speed (mph)	30	30	9	13	21
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	3	4	1	1	9
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.03	0.01	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	68	106	52	226
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.25
Stops (#)	4	0	52	56
Average Speed (mph)	29	30	18	25
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	4	13	6	24
Fuel Consumed (gal)	0	1	1	1
Fuel Economy (mpg)	NA	NA	NA	17.1
CO Emissions (kg)	0.01	0.04	0.05	0.10
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	52	37	15	104
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.40	0.91
Stops (#)	52	37	6	95
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	7	5	0	12
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	9.8
CO Emissions (kg)	0.05	0.03	0.00	0.08
NOx Emissions (kg)	0.01	0.01	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	108	34	23	58	223
Control Delay / Veh (s/v)	9	8	8	6	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	8	8	6	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.58	0.65	0.65	0.38	0.55
Stops (#)	63	22	15	22	122
Average Speed (mph)	22	19	10	23	22
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	24	4	1	9	38
Fuel Consumed (gal)	2	0	0	1	3
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.11	0.02	0.01	0.04	0.18
NOx Emissions (kg)	0.02	0.00	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.04
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	120	120
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	3	3
Distance Traveled (mi)	198	198
Fuel Consumed (gal)	7	7
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.47	0.47
NOx Emissions (kg)	0.09	0.09
VOC Emissions (kg)	0.11	0.11
Unservd Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	37	69	52	88	246
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.38	0.33	1.00	1.00	0.72
Stops (#)	14	23	52	88	177
Average Speed (mph)	33	34	20	17	28
Total Travel Time (hr)	0	1	0	1	3
Distance Traveled (mi)	14	48	8	10	79
Fuel Consumed (gal)	1	2	1	1	4
Fuel Economy (mpg)	NA	23.7	NA	9.3	17.8
CO Emissions (kg)	0.04	0.14	0.05	0.08	0.31
NOx Emissions (kg)	0.01	0.03	0.01	0.01	0.06
VOC Emissions (kg)	0.01	0.03	0.01	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	54	86	40	180
Control Delay / Veh (s/v)	2	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.33	0.00	1.00	0.32
Stops (#)	18	0	40	58
Average Speed (mph)	32	35	18	30
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	10	18	5	32
Fuel Consumed (gal)	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	19.0
CO Emissions (kg)	0.04	0.05	0.03	0.12
NOx Emissions (kg)	0.01	0.01	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	103	132	14	20	269
Control Delay / Veh (s/v)	0	1	10	9	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	9	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.06	0.17	1.00	1.00	0.23
Stops (#)	6	22	14	20	62
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	27	20	4	3	53
Fuel Consumed (gal)	1	1	0	0	3
Fuel Economy (mpg)	23.5	NA	NA	NA	20.3
CO Emissions (kg)	0.08	0.07	0.02	0.02	0.18
NOx Emissions (kg)	0.02	0.01	0.00	0.00	0.04
VOC Emissions (kg)	0.02	0.02	0.00	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	29	61	40	40	170
Control Delay / Veh (s/v)	2	0	9	9	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.34	0.02	1.00	1.00	0.54
Stops (#)	10	1	40	40	91
Average Speed (mph)	32	35	20	18	28
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	6	23	6	5	39
Fuel Consumed (gal)	0	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.7
CO Emissions (kg)	0.02	0.06	0.04	0.03	0.16
NOx Emissions (kg)	0.00	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 7th St SW/Beltline Rd & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	171	100	10	109	390
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	171	100	10	109	390
Average Speed (mph)	30	30	30	35	31
Total Travel Time (hr)	3	1	0	1	4
Distance Traveled (mi)	82	26	7	19	133
Fuel Consumed (gal)	4	2	0	2	8
Fuel Economy (mpg)	19.0	16.0	NA	12.4	17.1
CO Emissions (kg)	0.30	0.11	0.02	0.11	0.55
NOx Emissions (kg)	0.06	0.02	0.00	0.02	0.11
VOC Emissions (kg)	0.07	0.03	0.01	0.03	0.13
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	16	121	142	44	323
Control Delay / Veh (s/v)	10	11	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	11	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.39	0.50
Stops (#)	16	121	7	17	161
Average Speed (mph)	23	24	30	26	27
Total Travel Time (hr)	0	2	3	0	5
Distance Traveled (mi)	4	42	81	5	133
Fuel Consumed (gal)	0	3	3	0	7
Fuel Economy (mpg)	NA	15.8	24.0	NA	19.9
CO Emissions (kg)	0.02	0.19	0.24	0.02	0.47
NOx Emissions (kg)	0.00	0.04	0.05	0.00	0.09
VOC Emissions (kg)	0.00	0.04	0.05	0.01	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	178	117	47	342
Control Delay / Veh (s/v)	10	2	0	6
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	2	0	6
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.40	0.00	0.66
Stops (#)	178	47	0	225
Average Speed (mph)	22	19	30	24
Total Travel Time (hr)	2	0	1	3
Distance Traveled (mi)	39	3	27	69
Fuel Consumed (gal)	3	0	1	5
Fuel Economy (mpg)	13.2	NA	24.3	15.3
CO Emissions (kg)	0.21	0.03	0.08	0.32
NOx Emissions (kg)	0.04	0.01	0.01	0.06
VOC Emissions (kg)	0.05	0.01	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	114	98	73	2	287
Control Delay / Veh (s/v)	0	2	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.36	1.00	1.00	0.38
Stops (#)	0	35	73	2	110
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	17	22	9	0	48
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	19.4	NA	NA	17.3
CO Emissions (kg)	0.05	0.08	0.06	0.00	0.19
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	15	118	4	124	261
Control Delay / Veh (s/v)	1	0	8	10	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	0	8	10	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.27	0.00	1.00	1.00	0.51
Stops (#)	4	0	4	124	132
Average Speed (mph)	29	30	23	27	27
Total Travel Time (hr)	0	1	0	3	4
Distance Traveled (mi)	8	26	1	82	116
Fuel Consumed (gal)	0	1	0	4	6
Fuel Economy (mpg)	NA	24.3	NA	19.0	20.1
CO Emissions (kg)	0.02	0.08	0.00	0.30	0.40
NOx Emissions (kg)	0.00	0.01	0.00	0.06	0.08
VOC Emissions (kg)	0.01	0.02	0.00	0.07	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	15	149	112	276
Control Delay / Veh (s/v)	10	1	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.17	0.00	0.14
Stops (#)	15	25	0	40
Average Speed (mph)	51	29	30	34
Total Travel Time (hr)	1	1	1	2
Distance Traveled (mi)	28	23	29	80
Fuel Consumed (gal)	1	1	1	4
Fuel Economy (mpg)	22.2	20.7	24.3	22.4
CO Emissions (kg)	0.09	0.08	0.08	0.25
NOx Emissions (kg)	0.02	0.01	0.02	0.05
VOC Emissions (kg)	0.02	0.02	0.02	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	51	92	66	209
Control Delay / Veh (s/v)	10	0	2	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	2	3
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.36	0.36
Stops (#)	51	0	24	75
Average Speed (mph)	26	30	29	28
Total Travel Time (hr)	1	1	1	3
Distance Traveled (mi)	26	24	40	90
Fuel Consumed (gal)	1	1	2	4
Fuel Economy (mpg)	17.9	NA	22.2	21.2
CO Emissions (kg)	0.10	0.07	0.13	0.30
NOx Emissions (kg)	0.02	0.01	0.02	0.06
VOC Emissions (kg)	0.02	0.02	0.03	0.07
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	148	14	17	179
Control Delay / Veh (s/v)	10	0	1	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	1	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.24	0.85
Stops (#)	148	0	4	152
Average Speed (mph)	13	30	28	16
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	10	2	3	14
Fuel Consumed (gal)	1	0	0	2
Fuel Economy (mpg)	6.4	NA	NA	8.2
CO Emissions (kg)	0.10	0.01	0.01	0.12
NOx Emissions (kg)	0.02	0.00	0.00	0.02
VOC Emissions (kg)	0.02	0.00	0.00	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	18	85	28	18	149
Control Delay / Veh (s/v)	2	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.39	0.01	1.00	1.00	0.36
Stops (#)	7	1	28	18	54
Average Speed (mph)	20	30	13	13	23
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	1	11	2	1	14
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.03	0.02	0.01	0.07
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	54	18	36	22	130
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	54	18	36	22	130
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	7	2	2	1	12
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.5
CO Emissions (kg)	0.05	0.02	0.02	0.01	0.10
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	115	6	86	19	226
Control Delay / Veh (s/v)	8	7	8	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	7	8	7	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	115	6	86	19	226
Average Speed (mph)	25	14	26	15	25
Total Travel Time (hr)	2	0	1	0	3
Distance Traveled (mi)	40	0	38	1	79
Fuel Consumed (gal)	2	0	2	0	5
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.17	0.00	0.15	0.01	0.34
NOx Emissions (kg)	0.03	0.00	0.03	0.00	0.07
VOC Emissions (kg)	0.04	0.00	0.03	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	84	116	132	104	436
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	84	116	132	104	436
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	2	3	1	5
Distance Traveled (mi)	3	55	79	19	156
Fuel Consumed (gal)	1	3	4	1	9
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.7
CO Emissions (kg)	0.04	0.20	0.28	0.09	0.62
NOx Emissions (kg)	0.01	0.04	0.05	0.02	0.12
VOC Emissions (kg)	0.01	0.05	0.06	0.02	0.14
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	258	13	59	330
Control Delay / Veh (s/v)	10	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	2	8
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.00	0.37	0.85
Stops (#)	258	0	22	280
Average Speed (mph)	27	30	19	27
Total Travel Time (hr)	6	0	0	6
Distance Traveled (mi)	160	2	2	164
Fuel Consumed (gal)	9	0	0	9
Fuel Economy (mpg)	18.8	NA	NA	18.6
CO Emissions (kg)	0.60	0.01	0.01	0.62
NOx Emissions (kg)	0.12	0.00	0.00	0.12
VOC Emissions (kg)	0.14	0.00	0.00	0.14
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	5
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	5
Total Delay (hr)	19
Stops / Veh	0.50
Stops (#)	6677
Average Speed (mph)	27
Total Travel Time (hr)	121
Distance Traveled (mi)	3201
Fuel Consumed (gal)	181
Fuel Economy (mpg)	17.7
CO Emissions (kg)	12.64
NOx Emissions (kg)	2.46
VOC Emissions (kg)	2.93
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.1

DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.928			0.945					0.386		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1779	0	719	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			54			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	80	107	42	124	186	0	315	135	101	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	450	0	101	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	

DESIGN YEAR 2C
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.49			0.57		0.33	0.27	
Control Delay		7.1			9.8			12.8		13.2	7.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		7.1			9.8			12.8		13.2	7.3	
LOS		A			A			B		B	A	
Approach Delay		7.1			9.8			12.8			8.5	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.8

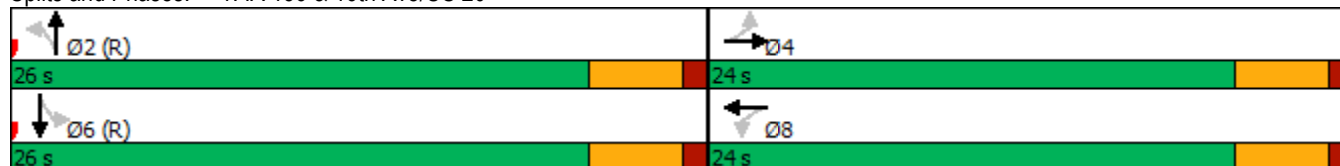
Intersection LOS: A

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2C
1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.955			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1779	0	1770	3405	0
Flt Permitted		0.928			0.945					0.386		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1779	0	719	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			54			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

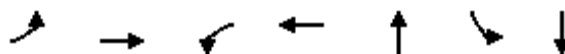
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (vph)	21	59	79	31	91	137	0	232	99	74	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	80	107	42	124	186	0	315	135	101	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	450	0	101	413	0
Intersection Summary												

DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	232	74	227
Future Volume (vph)	21	59	31	91	232	74	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.31		0.49	0.57	0.33	0.27
Control Delay		7.1		9.8	12.8	13.2	7.3
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		7.1		9.8	12.8	13.2	7.3
LOS		A		A	B	B	A
Approach Delay		7.1		9.8	12.8		8.5
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.8

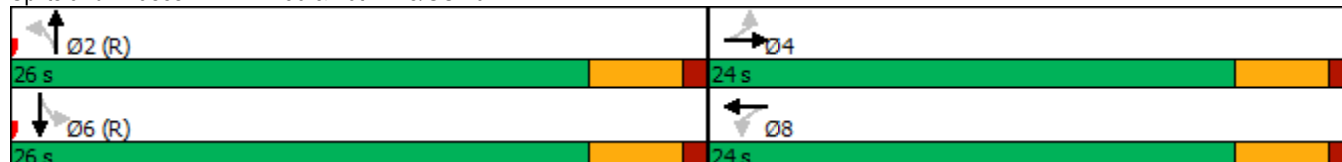
Intersection LOS: A

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

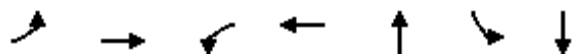
Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	216	352	450	101	413
v/c Ratio	0.31	0.49	0.57	0.33	0.27
Control Delay	7.1	9.8	12.8	13.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	9.8	12.8	13.2	7.3
Queue Length 50th (ft)	20	43	80	18	27
Queue Length 95th (ft)	56	100	151	49	50
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	694	718	795	309	1524
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.49	0.57	0.33	0.27
Intersection Summary					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	74	99	39	114	171	0	290	124	93	284	96
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	199	0	0	324	0	0	414	0	93	380	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.96	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1815	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	27.4	0.0	6.1	13.1	0.0
Adj Reference Time (s)	0.0			0.0			9.5	31.9	0.0	10.6	17.6	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1815		120	1740	
Reference Time A (s)	0.0	18.7		0.0	29.0		0.0	27.4		92.2	13.1	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	18.7			29.0			27.4			92.2		
Adj Reference Time (s)	23.2			33.5			31.9			96.7		
Split Option												
Ref Time Combined (s)	0.0	13.7		0.0	22.3		0.0	27.4		6.1	13.1	
Ref Time Seperate (s)	1.7	5.1		2.6	7.9		0.0	19.2		6.1	9.8	
Reference Time (s)	13.7	13.7		22.3	22.3		27.4	27.4		13.1	13.1	
Adj Reference Time (s)	18.2	18.2		26.8	26.8		31.9	31.9		17.6	17.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		42.5									
Permitted Option (s)	33.5		96.7									
Split Option (s)	45.0		49.5									
Minimum (s)	33.5		42.5		76.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	63.3%			ICU Level of Service			B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C

1: IA 136 & 16th Ave/US 20

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	315	135	101	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	282	318	123	262	341	144	534	229	366	1125	376
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	106	724	815	108	672	873	973	1242	532	940	2615	875
Grp Volume(v), veh/h	216	0	0	352	0	0	0	0	450	101	207	206
Grp Sat Flow(s),veh/h/ln	1645	0	0	1653	0	0	973	0	1775	940	1777	1713
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	4.6	3.8	3.9
Cycle Q Clear(g_c), s	4.4	0.0	0.0	7.9	0.0	0.0	0.0	0.0	9.7	14.3	3.8	3.9
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.30	1.00		0.51
Lane Grp Cap(c), veh/h	723	0	0	725	0	0	144	0	763	366	764	737
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.59	0.28	0.27	0.28
Avail Cap(c_a), veh/h	723	0	0	725	0	0	144	0	763	366	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	11.7	0.0	0.0	0.0	0.0	10.9	16.3	9.2	9.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	3.3	1.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.0	0.0	0.0	0.0	0.0	3.7	1.1	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	14.2	18.2	10.1	10.2
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h		216			352			450			514	
Approach Delay, s/veh		11.7			14.0			14.2			11.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		11.7		6.4		16.3		9.9				
Green Ext Time (p_c), s		2.0		1.0		1.4		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

DESIGN YEAR 2C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	232	99	74	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	315	135	101	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	282	318	123	262	341	144	534	229	366	1125	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	14.2	18.2	10.1	10.2
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h	216			352			450			514		
Approach Delay, s/veh	11.7			14.0			14.2			11.7		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	11.7			6.4			16.3			9.9		
Green Ext Time (g_e), s	2.0			1.0			1.4			1.5		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	973			106			940			108		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1242			724			2615			672		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	532			815			875			873		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	216	0	101	0	352
Grp Sat Flow (s), veh/h/ln	0	973	0	1645	0	940	0	1653
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.4	0.0	14.3	0.0	7.9
Perm LT Sat Flow (s_l), veh/h/ln	0	973	0	1086	0	940	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	11.6	0.0	11.8	0.0	15.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.7	0.0	0.0	0.0	8.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	4.4	0.0	0.0	0.0	7.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	723	0	366	0	725
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.28	0.00	0.49
Avail Cap (c_a), veh/h	0	144	0	723	0	366	0	725
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.6	0.0	16.3	0.0	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	1.9	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	18.2	0.0	14.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.9	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.6	0.0	1.1	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.22	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	207	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	450	0	0	0	206	0	0
Grp Sat Flow (s), veh/h/ln	0	1775	0	0	0	1713	0	0
Q Serve Time (g_s), s	0.0	9.7	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.7	0.0	0.0	0.0	3.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.30	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	763	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.59	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	763	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.9	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.92	2.03	2.34	2.37
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	216	352	450	514
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.72	2.90	2.67	2.43
Bicycle LOS	C	C	C	B

DESIGN YEAR 2C

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	144	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	0	0	0	293	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	42.3%						ICU Level of Service A					
Analysis Period (min)	15											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.947									0.900	
Flt Protected		0.970						0.989				
Satd. Flow (prot)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.970						0.989				
Satd. Flow (perm)	0	1711	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	106	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	144	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	0	0	0	293	0	0	432	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

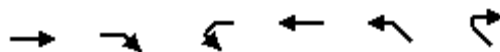
DESIGN YEAR 2C

2: IA 136

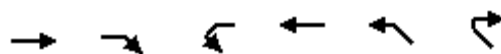
01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	0	85	0	0	0	58	211	0	0	134	264
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	218	0	0	0	0	0	269	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1734	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1280		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	20.4		0.0	0.0		0.0	57.8		0.0	14.6	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	16.8	23.1		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		20.4			0.0			57.8			14.6	
Adj Reference Time (s)		24.4			8.0			61.8			18.6	
Split Option												
Ref Time Combined (s)	0.0	15.1		0.0	0.0		0.0	9.0		0.0	14.6	
Ref Time Seperate (s)	8.8	0.0		0.0	0.0		3.8	7.0		0.0	4.9	
Reference Time (s)	15.1	15.1		0.0	0.0		9.0	9.0		14.6	14.6	
Adj Reference Time (s)	19.1	19.1		0.0	0.0		13.0	13.0		18.6	18.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	24.4		61.8									
Split Option (s)	19.1		31.7									
Minimum (s)	19.1		31.7		50.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	42.3%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↔			↕↔	
Traffic Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	106	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	144	0	92	0	0	0	63	230	0	0	145	287
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	530	645	216	429	788	115	432	0	0	230	0	0
Stage 1	289	289	-	356	356	-	-	-	-	-	-	-
Stage 2	241	356	-	73	432	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	389	789	510	322	916	1124	-	-	1335	-	-
Stage 1	694	672	-	634	628	-	-	-	-	-	-	-
Stage 2	741	628	-	928	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	411	364	789	428	301	916	1124	-	-	1335	-	-
Mov Cap-2 Maneuver	411	364	-	428	301	-	-	-	-	-	-	-
Stage 1	650	672	-	593	588	-	-	-	-	-	-	-
Stage 2	694	588	-	819	581	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.2		0		2		0					
HCM LOS	C		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1124	-	-	506	-	1335	-	-				
HCM Lane V/C Ratio	0.056	-	-	0.467	-	-	-	-				
HCM Control Delay (s)	8.4	0.2	-	18.2	0	0	-	-				
HCM Lane LOS	A	A	-	C	A	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	2.5	-	0	-	-				



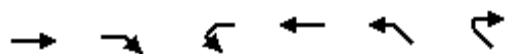
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	299	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	299	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.4%			ICU Level of Service A		
Analysis Period (min)	15					



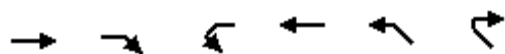
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	220	0	0	0	0
Future Volume (vph)	0	220	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	299	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	299	0	0	0	0
Intersection Summary						

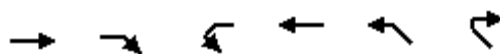


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2C

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Volume (vph)	0	275	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	275	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	20.4	0.0	0.0		0.0
Adj Reference Time (s)	0.0	24.4	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0	0.0		
Right Turns	EBR					
Adj Reference Time (s)	24.4					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	24.4					
Intersection Summary						
Intersection Capacity Utilization		20.4%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.950			0.940		0.471			0.431		
Satd. Flow (perm)	0	1587	0	0	1751	1583	877	1824	0	803	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		22			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	7	118	14	49	19	114	344	57	4	359	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	401	0	4	366	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.22			0.09	0.03	0.33	0.54		0.01	0.49	
Control Delay		4.3			9.2	2.6	12.6	13.1		8.5	12.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			9.2	2.6	12.6	13.1		8.5	12.8	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.7			13.0			12.8	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.897				0.850		0.979			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1824	0	1770	1857	0
Flt Permitted		0.950			0.940		0.471			0.431		
Satd. Flow (perm)	0	1587	0	0	1751	1583	877	1824	0	803	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		22			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	

Intersection Summary

Area Type: Other

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (vph)	21	5	87	10	36	14	84	253	42	3	264	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	7	118	14	49	19	114	344	57	4	359	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	401	0	4	366	0
Intersection Summary												

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	253	3	264
Future Volume (vph)	21	5	10	36	14	84	253	3	264
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.22		0.09	0.03	0.33	0.54	0.01	0.49
Control Delay		4.3		9.2	2.6	12.6	13.1	8.5	12.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		9.2	2.6	12.6	13.1	8.5	12.8
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.7			13.0		12.8
Approach LOS		A		A			B		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 11.3

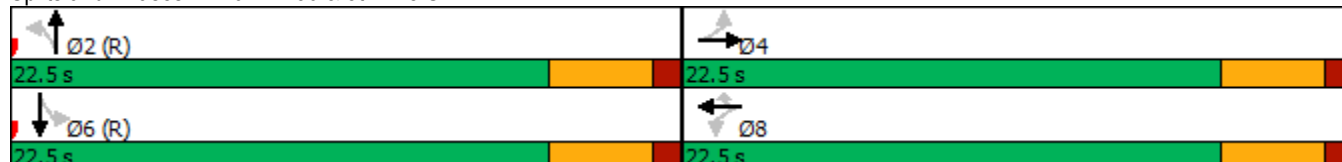
Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	63	19	114	401	4	366
v/c Ratio	0.22	0.09	0.03	0.33	0.54	0.01	0.49
Control Delay	4.3	9.2	2.6	12.6	13.1	8.5	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.2	2.6	12.6	13.1	8.5	12.8
Queue Length 50th (ft)	5	9	0	19	70	1	66
Queue Length 95th (ft)	31	m26	m6	49	133	5	123
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	705	700	654	350	742	321	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.09	0.03	0.33	0.54	0.01	0.49

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	6	109	13	45	18	105	316	53	4	330	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	141	0	0	58	18	105	369	0	4	336	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1859	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.3			23.8			21.3		
Adj Reference Time (s)	0.0			9.5			28.3			25.8		
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1859	120	1895	0	4	336	0
Reference Time A (s)	0.0	38.8	0.0	5.2	104.7	23.8	3.7	21.3	0.0	4.0	33.0	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	0	0	0
Reference Time B (s)	9.7	18.2	8.8	11.7	NA	NA	NA	NA	9.5	18.2	25.8	9.5
Reference Time (s)	18.2			5.2			104.7			21.3		
Adj Reference Time (s)	22.7			9.7			109.2			25.8		
Split Option												
Ref Time Combined (s)	0.0	10.2	0.0	3.7	7.0	23.8	0.2	21.3	0.0	4.0	33.0	0.0
Ref Time Seperate (s)	1.7	0.5	0.8	2.8	7.0	20.4	0.2	20.9	0.0	4.0	33.0	0.0
Reference Time (s)	10.2	10.2	3.7	3.7	23.8	23.8	21.3	21.3	10.2	10.2	10.2	10.2
Adj Reference Time (s)	14.7	14.7	9.5	9.5	28.3	28.3	25.8	25.8	14.7	14.7	14.7	14.7
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		37.8									
Permitted Option (s)	22.7		109.2									
Split Option (s)	24.2		54.1									
Minimum (s)	22.7		37.8		60.5							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	28.3											
Oncoming Left Ref Time (s)	14.7											
Combined (s)	52.5											
Intersection Summary												
Intersection Capacity Utilization			50.4%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	344	57	4	359	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	79	485	196	603	634	417	626	104	387	731	14
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	172	198	1213	245	1509	1585	1016	1564	259	984	1828	36
Grp Volume(v), veh/h	154	0	0	63	0	19	114	0	401	4	0	366
Grp Sat Flow(s),veh/h/ln	1583	0	0	1753	0	1585	1016	0	1824	984	0	1864
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	4.2	0.0	7.6	0.1	0.0	6.6
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.9	0.0	0.3	10.8	0.0	7.6	7.8	0.0	6.6
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.14	1.00		0.02
Lane Grp Cap(c), veh/h	728	0	0	799	0	634	417	0	729	387	0	746
V/C Ratio(X)	0.21	0.00	0.00	0.08	0.00	0.03	0.27	0.00	0.55	0.01	0.00	0.49
Avail Cap(c_a), veh/h	728	0	0	799	0	634	417	0	729	387	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	8.4	0.0	8.2	14.1	0.0	10.4	13.4	0.0	10.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	0.0	0.1	1.6	0.0	3.0	0.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.3	0.0	0.1	1.0	0.0	3.0	0.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.7	0.0	13.4	13.4	0.0	12.4
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		154			82			515			370	
Approach Delay, s/veh		9.6			8.5			13.9			12.4	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		12.8		4.8		9.8		2.9				
Green Ext Time (p_c), s		1.4		0.7		1.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

DESIGN YEAR 2C
16: IA 136 & 8th Ave SE

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Future Volume (veh/h)	21	5	87	10	36	14	84	253	42	3	264	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	344	57	4	359	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	79	485	196	603	634	417	626	104	387	731	14
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.7	0.0	13.4	13.4	0.0	12.4
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	154				82		515				370	
Approach Delay, s/veh	9.6				8.5		13.9				12.4	
Approach LOS	A				A		B				B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4		6				8	
Case No	6.0				8.0		6.0				7.0	
Phs Duration (G+Y+Rc), s	22.5				22.5		22.5				22.5	
Change Period (Y+Rc), s	4.5				4.5		4.5				4.5	
Max Green (Gmax), s	18.0				18.0		18.0				18.0	
Max Allow Headway (MAH), s	5.2				5.5		5.2				5.0	
Max Q Clear (g_c+I1), s	12.8				4.8		9.8				2.9	
Green Ext Time (g_e), s	1.4				0.7		1.4				0.2	
Prob of Phs Call (p_c)	1.00				1.00		1.00				1.00	
Prob of Max Out (p_x)	0.00				0.00		0.00				0.00	
Left-Turn Movement Data												
Assigned Mvmt	5				7		1				3	
Mvmt Sat Flow, veh/h	1016				172		984				245	
Through Movement Data												
Assigned Mvmt	2				4		6				8	
Mvmt Sat Flow, veh/h	1564				198		1828				1509	
Right-Turn Movement Data												
Assigned Mvmt	12				14		16				18	
Mvmt Sat Flow, veh/h	259				1213		36				1585	
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L		L+T+R		L		L+T					

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	114	0	154	0	4	0	63
Grp Sat Flow (s), veh/h/ln	0	1016	0	1583	0	984	0	1753
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.8	0.0	2.8	0.0	7.8	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1016	0	1354	0	984	0	1286
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	11.4	0.0	17.1	0.0	10.4	0.0	15.2
Perm LT Q Serve Time (g_ps), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	417	0	728	0	387	0	799
V/C Ratio (X)	0.00	0.27	0.00	0.21	0.00	0.01	0.00	0.08
Avail Cap (c_a), veh/h	0	417	0	728	0	387	0	799
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.1	0.0	8.9	0.0	13.4	0.0	8.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.7	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.7	0.0	9.6	0.0	13.4	0.0	8.6
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.9	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.03	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	401	0	0	0	366	0	19
Grp Sat Flow (s), veh/h/ln	0	1824	0	0	0	1864	0	1585
Q Serve Time (g_s), s	0.0	7.6	0.0	0.0	0.0	6.6	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	0.0	0.0	6.6	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.14	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	729	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.55	0.00	0.00	0.00	0.49	0.00	0.03
Avail Cap (c_a), veh/h	0	729	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.4	0.0	0.0	0.0	10.1	0.0	8.2
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.0	0.0	2.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.4	0.0	0.0	0.0	12.4	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	0.0	0.0	2.1	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	0.0	0.0	2.6	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.08	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.85	1.97	2.25	2.17
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	82	515	370
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.37	2.25	2.96	2.54
Bicycle LOS	B	B	C	C

DESIGN YEAR 2C
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	76	50	48	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	52	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.1%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.990			
Flt Protected			0.956			0.950
Satd. Flow (prot)	1611	0	1763	0	0	1770
Flt Permitted			0.956			0.950
Satd. Flow (perm)	1611	0	1763	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Intersection Summary						

Area Type: Other



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	35	3	3	71
Future Volume (vph)	56	37	35	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	76	50	48	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	52	0	0	100
Intersection Summary						



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

DESIGN YEAR 2C
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	70	46	44	4	4	89
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	116	0	48	0	0	93
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.94	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1791	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	8.6	0.0		0.0		
Adj Reference Time (s)	12.6	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			119		0	120
Reference Time A (s)			47.7		0.0	92.2
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			3.2		0.0	6.1
Ref Time Seperate (s)			2.9		0.2	5.9
Reference Time (s)			3.2		6.1	6.1
Adj Reference Time (s)			8.0		10.1	10.1
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		10.1	
Minimum (s)	0.0		8.0		10.1	18.1
Right Turns	EBR					
Adj Reference Time (s)	12.6					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.6					
Intersection Summary						
Intersection Capacity Utilization			15.1%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893		0.904		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1660	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	80	304	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	0	84	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	51.9%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2C

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.893		0.904		0.997	
Flt Protected	0.990		0.986		0.953	
Satd. Flow (prot)	1647	0	1660	0	1770	0
Flt Permitted	0.990		0.986		0.953	
Satd. Flow (perm)	1647	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	59	224	18	44	224	5
Future Volume (vph)	59	224	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	80	304	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	0	84	0	311	0
Intersection Summary						

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

DESIGN YEAR 2C

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	74	280	23	55	280	6
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	354	0	78	0	286	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1657	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	384.3		83.4		286.1	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	25.6		5.6		19.1	
Ref Time Seperate (s)	5.3		1.6		18.7	
Reference Time (s)	25.6		5.6		19.1	
Adj Reference Time (s)	29.6		9.6		23.1	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	29.6		9.6		23.1	
Minimum (s)	29.6		9.6		23.1	62.2
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		51.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.929			0.966		0.988			0.999	
Flt Protected		0.977			0.964		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1735	0	1759	0	0	1773	0
Flt Permitted		0.977			0.964		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1735	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	0	58	3	0	1	374	37	76	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	111	0	0	4	0	411	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	59.5%					ICU Level of Service B					
Analysis Period (min)	15										

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.929			0.966		0.988			0.999	
Flt Protected		0.977			0.964		0.956			0.953	
Satd. Flow (prot)	0	1691	0	0	1735	0	1759	0	0	1773	0
Flt Permitted		0.977			0.964		0.956			0.953	
Satd. Flow (perm)	0	1691	0	0	1735	0	1759	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Intersection Summary											
Area Type:	Other										

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Future Volume (vph)	39	0	43	2	0	1	275	27	56	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	53	0	58	3	0	1	374	37	76	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	111	0	0	4	0	411	0	0	432	0
Intersection Summary											



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

DESIGN YEAR 2C

30: Beltline Rd

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations		↕			↕		↕			↕	
Volume (vph)	49	0	54	3	0	1	344	34	70	325	3
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right			No			No		No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	103	0	0	4	0	378	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.92	0.85	0.94	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1709	0	0	1745	0	1789	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00		0.00			0.00	
Protected Option Allowed		No			No		No			No	
Reference Time (s)			0.0			0.0		0.0			0.0
Adj Reference Time (s)			0.0			0.0		0.0			0.0
Permitted Option											
Adj Saturation A (vph)	0	1606		0	1193		119		0	120	
Reference Time A (s)	0.0	7.7		0.0	0.4		379.8		0.0	396.6	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	11.2	15.2		8.2	8.3		NA		NA	NA	
Reference Time (s)		7.7			0.4						
Adj Reference Time (s)		11.7			8.0						
Split Option											
Ref Time Combined (s)	0.0	7.2		0.0	0.3		25.3		0.0	26.4	
Ref Time Seperate (s)	3.2	0.0		0.2	0.0		23.1		4.7	21.6	
Reference Time (s)	7.2	7.2		0.3	0.3		25.3		26.4	26.4	
Adj Reference Time (s)	11.2	11.2		8.0	8.0		29.3		30.4	30.4	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	11.7		Err		Err						
Split Option (s)	19.2		29.3		30.4						
Minimum (s)	11.7		29.3		30.4		71.4				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization		59.5%			ICU Level of Service				B		
Reference Times and Phasing Options do not represent an optimized timing plan.											

DESIGN YEAR 2C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	73	5	15	75	132	0	293	41	110	293	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	334	0	0	440	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	62.2%				ICU Level of Service B							
Analysis Period (min)	15											

DESIGN YEAR 2C

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.983			0.989	
Flt Protected		0.994			0.997						0.988	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Flt Permitted		0.994			0.997						0.988	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1831	0	0	1820	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Future Volume (vph)	8	54	4	11	55	97	0	216	30	81	216	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	73	5	15	75	132	0	293	41	110	293	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	334	0	0	440	0
Intersection Summary												

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

31: 2nd Ave SE

01/15/2025

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	10	68	5	14	69	121	0	270	38	101	270	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	204	0	0	308	0	0	405	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1865	0	0	1853	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1865		0	383	
Reference Time A (s)	0.0	8.3		0.0	16.6		0.0	19.8		0.0	126.9	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.9	22.2		NA	NA		NA	NA	
Reference Time (s)	8.3			16.6			19.8			126.9		
Adj Reference Time (s)	12.3			20.6			23.8			130.9		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	14.2		0.0	19.8		0.0	26.2	
Ref Time Seperate (s)	0.7	4.3		0.9	4.8		0.0	17.4		6.7	17.3	
Reference Time (s)	5.3	5.3		14.2	14.2		19.8	19.8		26.2	26.2	
Adj Reference Time (s)	9.3	9.3		18.2	18.2		23.8	23.8		30.2	30.2	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.6		130.9									
Split Option (s)	27.5		54.0									
Minimum (s)	20.6		54.0		74.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	62.2%			ICU Level of Service			B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

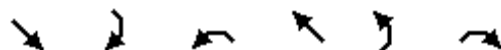
Int Delay, s/veh 8.1

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Future Vol, veh/h	8	54	4	11	55	97	0	216	30	81	216	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	73	5	15	75	132	0	293	41	110	293	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	949	866	312	885	864	314	330	0	0	334	0	0
Stage 1	532	532	-	314	314	-	-	-	-	-	-	-
Stage 2	417	334	-	571	550	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	240	291	728	266	292	726	1229	-	-	1225	-	-
Stage 1	531	526	-	697	656	-	-	-	-	-	-	-
Stage 2	613	643	-	506	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	140	259	728	190	260	726	1229	-	-	1225	-	-
Mov Cap-2 Maneuver	140	259	-	190	260	-	-	-	-	-	-	-
Stage 1	531	468	-	697	656	-	-	-	-	-	-	-
Stage 2	445	643	-	376	459	-	-	-	-	-	-	-

Approach	SE		NW		NE		SW	
HCM Control Delay, s	28.2		24.2		0		2.1	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1229	-	-	404	243	1225	-
HCM Lane V/C Ratio	-	-	-	0.548	0.369	0.09	-
HCM Control Delay (s)	0	-	-	24.2	28.2	8.2	0
HCM Lane LOS	A	-	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	3.2	1.6	0.3	-



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.8%			ICU Level of Service A		
Analysis Period (min)	15					



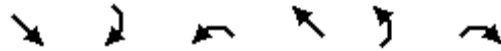
Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other



Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Intersection Summary						

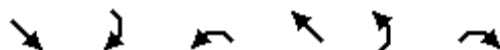


Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2C

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	140	30	25	150	16	15
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No			No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	170	0	0	175	31	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	11.0		0.0	34.9	32.8	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	11.0			34.9		
Adj Reference Time (s)	15.0			38.9		
Split Option						
Ref Time Combined (s)	11.0		0.0	11.1	2.2	
Ref Time Seperate (s)	9.1		1.7	9.5	1.1	
Reference Time (s)	11.0		11.1	11.1	2.2	
Adj Reference Time (s)	15.0		15.1	15.1	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	38.9		Err			
Split Option (s)	30.2		8.0			
Minimum (s)	30.2		8.0	38.2		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		31.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 1.4

Movement SET SER NWL NWT NEL NERLane Configurations 

Traffic Vol, veh/h 112 24 20 120 13 12

Future Vol, veh/h 112 24 20 120 13 12

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 152 33 27 163 18 16

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 185 0 386 169

Stage 1 - - - - 169 -

Stage 2 - - - - 217 -

Critical Hdwy - - 4.12 - 6.42 6.22

Critical Hdwy Stg 1 - - - - 5.42 -

Critical Hdwy Stg 2 - - - - 5.42 -

Follow-up Hdwy - - 2.218 - 3.518 3.318

Pot Cap-1 Maneuver - - 1390 - 617 875

Stage 1 - - - - 861 -

Stage 2 - - - - 819 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 1390 - 604 875

Mov Cap-2 Maneuver - - - - 604 -

Stage 1 - - - - 861 -

Stage 2 - - - - 802 -

Approach SE NW NE

HCM Control Delay, s 0 1.1 10.3

HCM LOS B

Minor Lane/Major Mvmt NELn1 NWL NWT SET SER

Capacity (veh/h) 709 1390 - - -

HCM Lane V/C Ratio 0.048 0.02 - - -

HCM Control Delay (s) 10.3 7.6 0 - -

HCM Lane LOS B A A - -

HCM 95th %tile Q(veh) 0.2 0.1 - - -

DESIGN YEAR 2C

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.936	0.865						
Flt Protected					0.996					0.950		
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996					0.950		
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	480				697				223			
Travel Time (s)	10.9				15.8				5.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.7%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2C

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	56	0	13	71	75	0	0	10	85	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	56	0	0	159	0	0	10	0	0	85	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	3.6		0.0	23.3		0.0	0.7		0.0	84.8	
Adj Saturation B (vph)	NA	NA		0	0		0	1615		0	0	
Reference Time B (s)	NA	NA		8.8	18.8		0.0	0.7		13.7	13.7	
Reference Time (s)	3.6			18.8			0.7			13.7		
Adj Reference Time (s)	8.0			22.8			8.0			17.7		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	10.8		0.0	0.7		0.0	5.7	
Ref Time Seperate (s)	0.0	3.6		0.8	4.9		0.0	0.0		5.7	0.0	
Reference Time (s)	3.6	3.6		10.8	10.8		0.7	0.7		5.7	5.7	
Adj Reference Time (s)	8.0	8.0		14.8	14.8		8.0	8.0		9.7	9.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	22.8		17.7									
Split Option (s)	22.8		17.7									
Minimum (s)	22.8		17.7		40.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	33.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	61	0	14	77	82	0	0	11	92	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	269	195	0	221	190	6	0	0	0	11	0	0
Stage 1	184	184	-	6	6	-	-	-	-	-	-	-
Stage 2	85	11	-	215	184	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	684	700	-	735	705	1077	-	-	-	1608	-	-
Stage 1	818	747	-	1016	891	-	-	-	-	-	-	-
Stage 2	923	886	-	787	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	551	660	-	-	665	1077	-	-	-	1608	-	-
Mov Cap-2 Maneuver	551	660	-	-	665	-	-	-	-	-	-	-
Stage 1	818	704	-	1016	891	-	-	-	-	-	-	-
Stage 2	779	886	-	678	704	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s					0		7.4					
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	-	-	-	-	-	1608	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	0.057	-	-				
HCM Control Delay (s)	0	-	-	-	-	7.4	0	-				
HCM Lane LOS	A	-	-	-	-	A	A	-				
HCM 95th %tile Q(veh)	-	-	-	-	-	0.2	-	-				

DESIGN YEAR 2C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.993				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Flt Permitted		0.976			0.950			0.993				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	0	3	5	0	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	5	0	0	52	0	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.5%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932						0.990				
Flt Protected		0.976			0.950			0.993				
Satd. Flow (prot)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Flt Permitted		0.976			0.950			0.993				
Satd. Flow (perm)	0	1694	0	0	1770	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		591			942			1407			1471	
Travel Time (s)		13.4			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Future Volume (vph)	2	0	2	4	0	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	0	3	5	0	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	0	5	0	0	52	0	0	69	0
Intersection Summary												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	3	5	0	0	6	38	4	0	64	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	5	0	0	5	0	0	48	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	0.95	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1714	0	0	1805	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1919		0	1023		0	630		0	1900	
Reference Time A (s)	0.0	0.3		0.0	0.6		0.0	9.1		0.0	4.0	
Adj Saturation B (vph)	0	0		0	0		0	0		0	1900	
Reference Time B (s)	8.2	8.4		8.3	8.3		8.4	11.1		0.0	4.0	
Reference Time (s)	0.3			0.6			9.1			4.0		
Adj Reference Time (s)	8.0			8.0			13.1			8.0		
Split Option												
Ref Time Combined (s)	0.0	0.4		0.0	0.3		0.0	3.1		0.0	4.0	
Ref Time Seperate (s)	0.2	0.0		0.3	0.0		0.4	2.4		0.0	4.0	
Reference Time (s)	0.4	0.4		0.3	0.3		3.1	3.1		4.0	4.0	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.0		13.1									
Split Option (s)	16.0		16.0									
Minimum (s)	8.0		13.1		21.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.5%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Future Vol, veh/h	2	0	2	4	0	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	3	5	0	0	7	41	4	0	69	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.2	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	50%	100%	0%
Vol Thru, %	79%	0%	0%	100%
Vol Right, %	8%	50%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	4	4	51
LT Vol	5	2	4	0
Through Vol	30	0	0	51
RT Vol	3	2	0	0
Lane Flow Rate	52	5	5	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.006	0.007	0.077
Departure Headway (Hd)	3.984	3.948	4.349	3.992
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	900	900	818	899
Service Time	2.003	1.999	2.4	2.007
HCM Lane V/C Ratio	0.058	0.006	0.006	0.077
HCM Control Delay	7.2	7	7.4	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0	0	0.2

DESIGN YEAR 2C
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	4	5	542	508	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	547	508	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.2%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	1611	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1611	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Intersection Summary						

Area Type: Other



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	3	4	399	374	0
Future Volume (vph)	0	3	4	399	374	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	4	5	542	508	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	547	508	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2C
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	4	5	499	468	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	4	0	0	504	468	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.95	1.00	1.00	0.85
Saturated Flow (vph)	1615	0	0	1899	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	108	0		1666	1900	
Reference Time A (s)	4.2	0.0		36.3	29.5	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				36.3	29.5	
Adj Reference Time (s)				40.3	33.5	
Split Option						
Ref Time Combined (s)	0.3	0.0		31.8	29.5	
Ref Time Seperate (s)	0.0	0.3		31.5	29.5	
Reference Time (s)	0.3	31.8		31.8	29.5	
Adj Reference Time (s)	8.0	35.8		35.8	33.5	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	40.3				
Split Option (s)	8.0	69.4				
Minimum (s)	8.0	40.3		48.3		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	40.2%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	3	4	399	374	0
Future Vol, veh/h	0	3	4	399	374	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	5	542	508	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1060	508	508	0	-	0
Stage 1	508	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	248	565	1057	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	246	565	1057	-	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-
Stage 1	600	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.4	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1057	-	565	-	-	
HCM Lane V/C Ratio	0.005	-	0.007	-	-	
HCM Control Delay (s)	8.4	0	11.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

DESIGN YEAR 2C

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.0%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Intersection Summary												

DESIGN YEAR 2C

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	80	16	44	69	11	25	1	38	16	3	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	106	0	0	124	0	0	64	0	0	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	7.2		0.0	20.5		0.0	4.7		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	14.9		10.9	16.1		9.7	12.5		9.1	9.7	
Reference Time (s)	7.2			16.1			4.7			2.8		
Adj Reference Time (s)	11.2			20.1			8.7			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	8.1		0.0	4.5		0.0	1.7	
Ref Time Seperate (s)	0.7	5.2		2.9	4.4		1.7	0.1		1.1	0.2	
Reference Time (s)	6.9	6.9		8.1	8.1		4.5	4.5		1.7	1.7	
Adj Reference Time (s)	10.9	10.9		12.1	12.1		8.5	8.5		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.1		8.7									
Split Option (s)	23.0		16.5									
Minimum (s)	20.1		8.7		28.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	87	18	48	75	12	27	1	41	18	3	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	105	0	0	300	301	96	316	304	81
Stage 1	-	-	-	-	-	-	118	118	-	177	177	-
Stage 2	-	-	-	-	-	-	182	183	-	139	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1486	-	-	652	612	960	637	609	979
Stage 1	-	-	-	-	-	-	887	798	-	825	753	-
Stage 2	-	-	-	-	-	-	820	748	-	864	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1486	-	-	625	586	960	589	583	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	586	-	589	583	-
Stage 1	-	-	-	-	-	-	880	792	-	818	727	-
Stage 2	-	-	-	-	-	-	784	723	-	819	785	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.7			10			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	785	1509	-	-	1486	-	-	653				
HCM Lane V/C Ratio	0.088	0.007	-	-	0.032	-	-	0.042				
HCM Control Delay (s)	10	7.4	0	-	7.5	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1				

DESIGN YEAR 2C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	27	0	0	102	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	102	0	0	46	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.9%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	75	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	27	0	0	102	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	102	0	0	46	0	0	10	0
Intersection Summary												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
59: 6th St SE & 2nd Ave SE

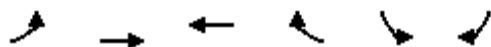
01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	25	0	0	94	0	0	0	43	0	9	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	25	0	0	94	0	0	43	0	0	9	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Reference Time (s)	1.6				5.9				3.2		0.6	
Adj Reference Time (s)	8.0				9.9				8.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	1.6		0.0	5.9		0.0	3.2		0.0	0.6	
Ref Time Seperate (s)	0.0	1.6		0.0	5.9		0.0	0.0		0.0	0.6	
Reference Time (s)	1.6	1.6		5.9	5.9		3.2	3.2		0.6	0.6	
Adj Reference Time (s)	8.0	8.0		9.9	9.9		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	9.9		8.0									
Split Option (s)	17.9		16.0									
Minimum (s)	9.9		8.0		17.9							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.9%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	75	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	102	0	0	0	46	0	10	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	27	0	0	134	129	27	152	129	102
Stage 1	-	-	-	-	-	-	27	27	-	102	102	-
Stage 2	-	-	-	-	-	-	107	102	-	50	27	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1587	-	-	838	762	1048	815	762	953
Stage 1	-	-	-	-	-	-	990	873	-	904	811	-
Stage 2	-	-	-	-	-	-	898	811	-	963	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1587	-	-	830	762	1048	779	762	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	762	-	779	762	-
Stage 1	-	-	-	-	-	-	990	873	-	904	811	-
Stage 2	-	-	-	-	-	-	887	811	-	921	873	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.6			9.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1048	1490	-	-	1587	-	-	762				
HCM Lane V/C Ratio	0.044	-	-	-	-	-	-	0.012				
HCM Control Delay (s)	8.6	0	-	-	0	-	-	9.8				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

DESIGN YEAR 2C
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.960		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	71	101	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	143	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 17.2% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2C
62: 2nd Ave SE & 7th St SE

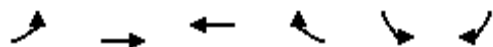
01/15/2025



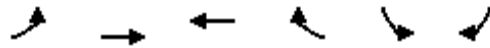
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.960		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1788	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1788	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

Area Type: Other



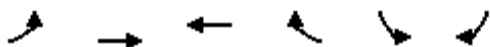
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	74	31	39	2
Future Volume (vph)	2	52	74	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	3	71	101	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	143	0	56	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2C
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	3	65	93	39	49	3
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	68	131	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.96	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1816	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1816		120	
Reference Time A (s)	0.0	6.5	8.7		51.4	
Adj Saturation B (vph)	NA	NA	1816		NA	
Reference Time B (s)	NA	NA	8.7		NA	
Reference Time (s)		6.5	8.7			
Adj Reference Time (s)		10.5	12.7			
Split Option						
Ref Time Combined (s)	0.0	4.3	8.7		3.4	
Ref Time Seperate (s)	0.2	4.1	6.1		3.3	
Reference Time (s)	4.3	4.3	8.7		3.4	
Adj Reference Time (s)	8.3	8.3	12.7		8.0	
Summary	EB WB		SB	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	12.7		Err			
Split Option (s)	20.9		8.0			
Minimum (s)	12.7		8.0	20.7		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		17.2%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	74	31	39	2
Future Vol, veh/h	2	52	74	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	71	101	42	53	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	143	0	0 199 122
Stage 1	-	-	- 122 -
Stage 2	-	-	- 77 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1440	-	- 790 929
Stage 1	-	-	- 903 -
Stage 2	-	-	- 946 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1440	-	- 788 929
Mov Cap-2 Maneuver	-	-	- 788 -
Stage 1	-	-	- 901 -
Stage 2	-	-	- 946 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1440	-	-	-	794
HCM Lane V/C Ratio	0.002	-	-	-	0.07
HCM Control Delay (s)	7.5	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

DESIGN YEAR 2C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Intersection Summary												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	39	4	5	28	5	0	0	0	8	0	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	51	0	0	38	0	0	0	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	4.8		0.0	3.0		0.0	0.0		0.0	1.3	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.6	11.3		8.3	10.4		0.0	0.0		8.5	9.1	
Reference Time (s)	4.8			3.0			0.0			1.3		
Adj Reference Time (s)	8.8			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	2.4		0.0	0.0		0.0	1.1	
Ref Time Seperate (s)	0.6	2.5		0.3	1.8		0.0	0.0		0.5	0.0	
Reference Time (s)	3.3	3.3		2.4	2.4		0.0	0.0		1.1	1.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.8		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.8		8.0		16.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.0%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	42	4	5	30	5	0	0	0	8	0	8
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	38	20	4	43	24	0	8	0	0	0	0	0
Stage 1	20	20	-	0	0	-	-	-	-	-	-	-
Stage 2	18	0	-	43	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	967	874	1080	960	869	-	1612	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	971	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	874	1080	922	869	-	1612	-	-	-	-	-
Mov Cap-2 Maneuver	-	874	-	922	869	-	-	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	921	875	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1612	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

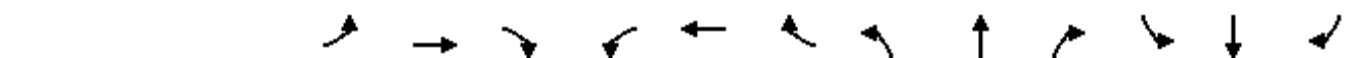
DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.995			0.978			0.921	
Flt Protected		0.977			0.995			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1844	0	0	1773	0	0	1690	0
Flt Permitted		0.863			0.980			0.894			0.935	
Satd. Flow (perm)	0	1595	0	0	1816	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	54	56	7	7	67	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	77	0	0	25	0	0	70	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.18			0.11			0.04			0.11	
Control Delay		9.3			8.7			7.7			4.4	
Queue Delay		0.0			0.0			0.0			0.0	

DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		9.3			8.7			7.7			4.4	
LOS		A			A			A			A	
Approach Delay		9.3			8.7			7.7			4.4	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.8

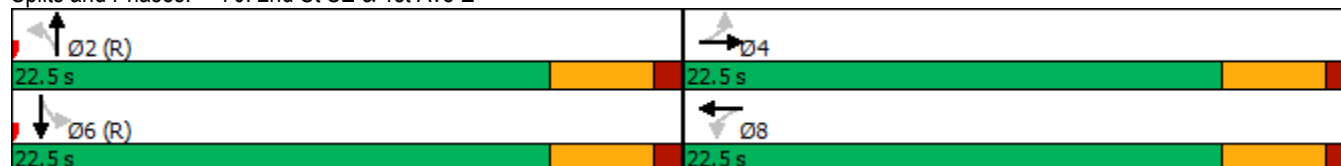
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.995			0.978			0.921	
Flt Protected		0.977			0.995			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1844	0	0	1773	0	0	1690	0
Flt Permitted		0.863			0.980			0.894			0.935	
Satd. Flow (perm)	0	1595	0	0	1816	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

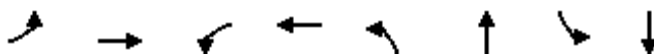
DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	49	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	54	56	7	7	67	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	77	0	0	25	0	0	70	0
Intersection Summary												

DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	49	10	5	16	5
Future Volume (vph)	40	41	5	49	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effect Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.18		0.11		0.04		0.11
Control Delay		9.3		8.7		7.7		4.4
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.3		8.7		7.7		4.4
LOS		A		A		A		A
Approach Delay		9.3		8.7		7.7		4.4
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.8

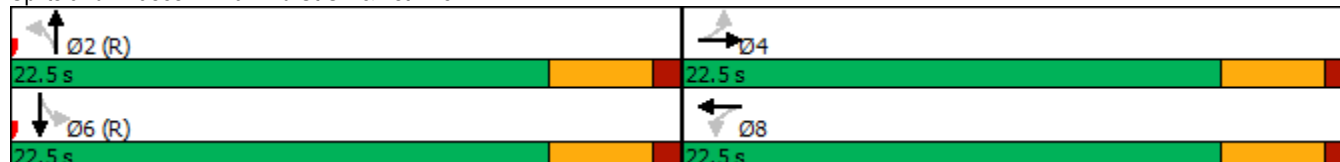
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

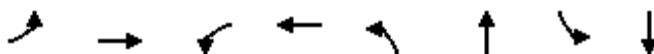
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

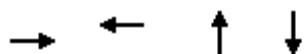
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	117	77	25	70
v/c Ratio	0.18	0.11	0.04	0.11
Control Delay	9.3	8.7	7.7	4.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.3	8.7	7.7	4.4
Queue Length 50th (ft)	17	11	3	3
Queue Length 95th (ft)	41	30	13	m16
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	642	728	654	666
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.11	0.04	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	51	6	6	61	3	13	6	4	20	6	38
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	108	0	0	70	0	0	23	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.99	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1881	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	566		0	1859		0	1036		0	1603	
Reference Time A (s)	0.0	22.8		0.0	4.5		0.0	2.6		0.0	4.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	11.3	15.0		8.4	12.5		8.8	9.5		9.3	12.5	
Reference Time (s)	15.0			4.5			2.6			4.8		
Adj Reference Time (s)	19.5			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	7.0		0.0	4.5		0.0	1.5		0.0	4.5	
Ref Time Seperate (s)	3.3	3.3		0.4	3.9		0.8	0.4		1.3	0.5	
Reference Time (s)	7.0	7.0		4.5	4.5		1.5	1.5		4.5	4.5	
Adj Reference Time (s)	11.5	11.5		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.5		9.5									
Split Option (s)	21.0		19.0									
Minimum (s)	19.5		9.5		29.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	67	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	350	38	111	682	29	433	207	98	254	113	370
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	628	875	96	59	1704	71	771	519	246	372	283	925
Grp Volume(v), veh/h	117	0	0	77	0	0	25	0	0	70	0	0
Grp Sat Flow(s),veh/h/ln	1599	0	0	1834	0	0	1535	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.46		0.06	0.09		0.04	0.56		0.16	0.31		0.59
Lane Grp Cap(c), veh/h	756	0	0	821	0	0	739	0	0	737	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.09	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	756	0	0	821	0	0	739	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.5	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	0.0	8.7	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		117			77			25			70	
Approach Delay, s/veh		9.1			8.7			8.3			8.7	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.4		3.8		3.2		3.2				
Green Ext Time (p_c), s		0.0		0.4		0.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

DESIGN YEAR 2C
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	49	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	67	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	368	350	38	111	682	29	433	207	98	254	113	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.1	0.0	0.0	8.7	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	117				77		25				70	
Approach Delay, s/veh	9.1				8.7		8.3				8.7	
Approach LOS	A				A		A				A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4		6		8			
Case No	8.0				8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s	22.5				22.5		22.5		22.5			
Change Period (Y+Rc), s	4.5				4.5		4.5		4.5			
Max Green (Gmax), s	18.0				18.0		18.0		18.0			
Max Allow Headway (MAH), s	5.4				5.3		5.4		5.3			
Max Q Clear (g_c+I1), s	2.4				3.8		3.2		3.2			
Green Ext Time (g_e), s	0.0				0.4		0.2		0.2			
Prob of Phs Call (p_c)	1.00				1.00		1.00		1.00			
Prob of Max Out (p_x)	0.00				0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt	5				7		1		3			
Mvmt Sat Flow, veh/h	771				628		372		59			
Through Movement Data												
Assigned Mvmt	2				4		6		8			
Mvmt Sat Flow, veh/h	519				875		283		1704			
Right-Turn Movement Data												
Assigned Mvmt	12				14		16		18			
Mvmt Sat Flow, veh/h	246				96		925		71			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R		L+T+R		L+T+R		L+T+R					

DESIGN YEAR 2C
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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	25	0	117	0	70	0	77
Grp Sat Flow (s), veh/h/ln	0	1535	0	1599	0	1580	0	1834
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	1.2
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	1352	0	1426	0	1360
Shared LT Sat Flow (s_sh), veh/h/ln	0	1819	0	1828	0	1841	0	1862
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.8	0.0	16.8	0.0	17.6	0.0	16.2
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.6	0.0	2.3	0.0	4.2	0.0	11.5
Serve Time pre Blk (g_fs), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	1.2
Prop LT Inside Lane (P_L)	0.00	0.56	0.00	0.46	0.00	0.31	0.00	0.09
Lane Grp Cap (c), veh/h	0	739	0	756	0	737	0	821
V/C Ratio (X)	0.00	0.03	0.00	0.15	0.00	0.09	0.00	0.09
Avail Cap (c_a), veh/h	0	739	0	756	0	737	0	821
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.6	0.0	8.4	0.0	8.5
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.4	0.0	0.3	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	9.1	0.0	8.7	0.0	8.7
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	0.3	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.7	0.0	0.4	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.01	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.06	0.00	0.59	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

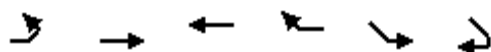
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.81	1.77	1.72	1.76
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	117	77	25	70
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.12	2.05	1.97	2.04
Bicycle LOS	B	B	B	B

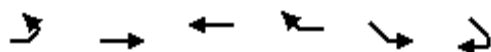
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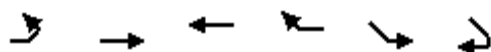
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	235	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	235	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 14.7%			ICU Level of Service A			
Analysis Period (min) 15						



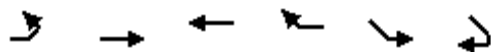
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	

Intersection Summary

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	173	0	0	0	0
Future Volume (vph)	0	173	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	235	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	235	0	0	0	0
Intersection Summary						

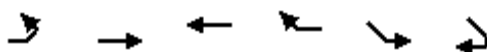


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	216	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	216	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	13.7	0.0	0.0		0.0
Adj Reference Time (s)	0.0	17.7	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	13.7	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	13.7	NA		NA	
Reference Time (s)		13.7	0.0			
Adj Reference Time (s)		17.7	8.0			
Split Option						
Ref Time Combined (s)	0.0	13.7	0.0		0.0	
Ref Time Seperate (s)	0.0	13.7	0.0		0.0	
Reference Time (s)	13.7	13.7	0.0		0.0	
Adj Reference Time (s)	17.7	17.7	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	17.7		NA			
Permitted Option (s)	17.7		Err			
Split Option (s)	17.7		0.0			
Minimum (s)	17.7		0.0	17.7		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		14.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.956			0.929			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	24	31	12	31	38	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	102	0	0	57	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	21.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2C

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.956			0.929			0.963	
Flt Protected		0.982			0.985			0.984			0.975	
Satd. Flow (prot)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Flt Permitted		0.982			0.985			0.984			0.975	
Satd. Flow (perm)	0	1785	0	0	1754	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Future Volume (vph)	18	23	9	23	28	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	31	12	31	38	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	67	0	0	102	0	0	57	0	0	96	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

79: 2nd St SE & Beltline Rd

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	29	11	29	35	30	18	8	28	46	19	24
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	63	0	0	94	0	0	53	0	0	89	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1815	0	0	1781	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1291		0	1438		0	1567		0	1102	
Reference Time A (s)	0.0	5.8		0.0	7.8		0.0	4.0		0.0	9.7	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.5	12.1		9.9	14.3		9.2	11.7		11.1	14.0	
Reference Time (s)	5.8			7.8			4.0			9.7		
Adj Reference Time (s)	9.8			11.8			8.0			13.7		
Split Option												
Ref Time Combined (s)	0.0	4.1		0.0	6.3		0.0	3.7		0.0	6.0	
Ref Time Seperate (s)	1.5	1.9		1.9	2.4		1.2	0.5		3.1	1.3	
Reference Time (s)	4.1	4.1		6.3	6.3		3.7	3.7		6.0	6.0	
Adj Reference Time (s)	8.1	8.1		10.3	10.3		8.0	8.0		10.0	10.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.8		13.7									
Split Option (s)	18.4		18.0									
Minimum (s)	11.8		13.7		25.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	21.2%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

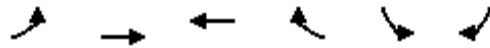
DESIGN YEAR 2C
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Future Vol, veh/h	18	23	9	23	28	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	31	12	31	38	33	19	8	30	50	20	26
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	43	0	0	225	218	37	221	208	55
Stage 1	-	-	-	-	-	-	85	85	-	117	117	-
Stage 2	-	-	-	-	-	-	140	133	-	104	91	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1566	-	-	730	680	1035	735	689	1012
Stage 1	-	-	-	-	-	-	923	824	-	888	799	-
Stage 2	-	-	-	-	-	-	863	786	-	902	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1529	-	-	1566	-	-	675	655	1035	687	664	1012
Mov Cap-2 Maneuver	-	-	-	-	-	-	675	655	-	687	664	-
Stage 1	-	-	-	-	-	-	908	811	-	874	782	-
Stage 2	-	-	-	-	-	-	802	769	-	853	807	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.7			2.3			9.7			10.5		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	821	1529	-	-	1566	-	-	746				
HCM Lane V/C Ratio	0.07	0.016	-	-	0.02	-	-	0.129				
HCM Control Delay (s)	9.7	7.4	0	-	7.3	0	-	10.5				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.4				

DESIGN YEAR 2C
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 20.9%				ICU Level of Service A		
Analysis Period (min) 15						

DESIGN YEAR 2C
80: Beltline Rd & 8th St NW

01/15/2025



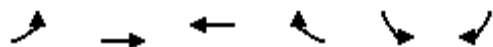
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

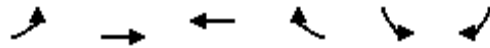
Area Type: Other

DESIGN YEAR 2C
80: Beltline Rd & 8th St NW

01/15/2025



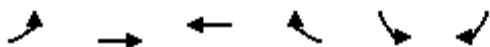
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2C
80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	16	63	55	31	10	30
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	79	86	0	40	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	20.8	5.8		43.2	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	9.1	13.0	5.8		NA	
Reference Time (s)		13.0	5.8			
Adj Reference Time (s)		17.0	9.8			
Split Option						
Ref Time Combined (s)	0.0	5.0	5.8		2.9	
Ref Time Seperate (s)	1.1	3.9	3.7		0.7	
Reference Time (s)	5.0	5.0	5.8		2.9	
Adj Reference Time (s)	9.0	9.0	9.8		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	17.0		Err			
Split Option (s)	18.8		8.0			
Minimum (s)	17.0		8.0		25.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	68	60	34	11	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	94	0	0 181 77
Stage 1	-	-	- 77 -
Stage 2	-	-	- 104 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1500	-	- 808 984
Stage 1	-	-	- 946 -
Stage 2	-	-	- 920 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1500	-	- 798 984
Mov Cap-2 Maneuver	-	-	- 798 -
Stage 1	-	-	- 935 -
Stage 2	-	-	- 920 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1500	-	-	-	930
HCM Lane V/C Ratio	0.012	-	-	-	0.047
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

DESIGN YEAR 2C
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.963			0.937			0.938	
Flt Protected		0.998			0.994			0.977			0.978	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Flt Permitted		0.998			0.994			0.977			0.978	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	16	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2C

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.963			0.937			0.938	
Flt Protected		0.998			0.994			0.977			0.978	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Flt Permitted		0.998			0.994			0.977			0.978	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1709	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	12	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	16	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	35	0
Intersection Summary												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

95: 5th St NW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	99	1	15	81	36	6	1	6	15	3	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	133	0	0	14	0	0	33	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1728	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1732			0	1010			0	1373	0	1353
Reference Time A (s)	0.0	7.2			0.0	15.7			0.0	1.2	0.0	2.9
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	8.2	14.6			9.0	16.8			8.4	9.0	9.0	10.3
Reference Time (s)	7.2				15.7				1.2		2.9	
Adj Reference Time (s)	11.2				19.7				8.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	6.6			0.0	8.8			0.0	1.0	0.0	2.3
Ref Time Seperate (s)	0.2	6.2			1.0	5.4			0.4	0.1	1.0	0.2
Reference Time (s)	6.6	6.6			8.8	8.8			1.0	1.0	2.3	2.3
Adj Reference Time (s)	10.6	10.6			12.8	12.8			8.0	8.0	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.7		8.0									
Split Option (s)	23.4		16.0									
Minimum (s)	19.7		8.0		27.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.1%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	12	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	1	16	88	39	7	1	7	16	3	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	108	0	0	265	275	108	260	256	108
Stage 1	-	-	-	-	-	-	116	116	-	140	140	-
Stage 2	-	-	-	-	-	-	149	159	-	120	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1483	-	-	688	632	946	693	648	946
Stage 1	-	-	-	-	-	-	889	800	-	863	781	-
Stage 2	-	-	-	-	-	-	854	766	-	884	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1483	-	-	666	623	946	679	638	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	679	638	-
Stage 1	-	-	-	-	-	-	886	798	-	860	772	-
Stage 2	-	-	-	-	-	-	826	757	-	874	798	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.8			9.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	764	1459	-	-	1483	-	-	776				
HCM Lane V/C Ratio	0.02	0.003	-	-	0.011	-	-	0.046				
HCM Control Delay (s)	9.8	7.5	0	-	7.5	0	-	9.9				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2C

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965			0.980			0.939			0.939	
Flt Protected		0.990			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Flt Permitted		0.990			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	31	15	15	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	80	0	0	44	0	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	15.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.980			0.939			0.939	
Flt Protected		0.990			0.991			0.973			0.982	
Satd. Flow (prot)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Flt Permitted		0.990			0.991			0.973			0.982	
Satd. Flow (perm)	0	1780	0	0	1809	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Future Volume (vph)	9	23	11	11	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	31	15	15	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	80	0	0	44	0	0	44	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

96: 5th St NW & Beltline Rd

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	11	29	14	14	49	11	23	0	19	15	8	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	54	0	0	74	0	0	41	0	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1808	0	0	1839	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1296		0	1423		0	1099		0	1582	
Reference Time A (s)	0.0	5.0		0.0	6.2		0.0	4.5		0.0	3.1	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	11.6		8.9	12.8		9.5	10.9		9.0	10.8	
Reference Time (s)	5.0			6.2			4.5			3.1		
Adj Reference Time (s)	9.0			10.2			8.5			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	4.8		0.0	2.9		0.0	2.8	
Ref Time Seperate (s)	0.7	1.9		0.9	3.2		1.5	0.0		1.0	0.5	
Reference Time (s)	3.6	3.6		4.8	4.8		2.9	2.9		2.8	2.8	
Adj Reference Time (s)	8.0	8.0		8.8	8.8		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	10.2		8.5									
Split Option (s)	16.8		16.0									
Minimum (s)	10.2		8.5		18.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	15.6%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	23	11	11	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	31	15	15	53	12	24	0	20	16	8	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	46	0	0	166	158	39	162	159	59
Stage 1	-	-	-	-	-	-	63	63	-	89	89	-
Stage 2	-	-	-	-	-	-	103	95	-	73	70	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1562	-	-	798	734	1033	803	733	1007
Stage 1	-	-	-	-	-	-	948	842	-	918	821	-
Stage 2	-	-	-	-	-	-	903	816	-	937	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1562	-	-	764	721	1033	777	720	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	764	721	-	777	720	-
Stage 1	-	-	-	-	-	-	940	835	-	911	813	-
Stage 2	-	-	-	-	-	-	867	808	-	911	830	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			1.4			9.4			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	867	1537	-	-	1562	-	-	853				
HCM Lane V/C Ratio	0.052	0.008	-	-	0.01	-	-	0.053				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

DESIGN YEAR 2C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Future Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.981						0.970	
Flt Protected		0.981									0.988	
Satd. Flow (prot)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Flt Permitted		0.981									0.988	
Satd. Flow (perm)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	87	27	0	94	15	0	11	0	16	34	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	109	0	0	11	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	32.6%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.981						0.970	
Flt Protected		0.981									0.988	
Satd. Flow (prot)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Flt Permitted		0.981									0.988	
Satd. Flow (perm)	0	1791	0	0	1827	0	0	1863	0	0	1785	0
Link Speed (mph)		30			30			30			35	
Link Distance (ft)		2523			1359			3482			939	
Travel Time (s)		57.3			30.9			79.1			18.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Future Volume (vph)	53	64	20	0	69	11	0	8	0	12	25	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	72	87	27	0	94	15	0	11	0	16	34	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	186	0	0	109	0	0	11	0	0	64	0
Intersection Summary												

DESIGN YEAR 2C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

101: 7th St SW/Beltline Rd & 1st Ave E

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	66	80	25	0	86	14	0	10	0	15	31	13
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	171	0	0	100	0	0	10	0	0	59	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	1.00	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1822	0	0	1861	0	0	1900	0	0	1816	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	260		0	1861		0	1900		0	369	
Reference Time A (s)	0.0	79.1		0.0	6.4		0.0	0.6		0.0	19.1	
Adj Saturation B (vph)	0	0		0	1861		0	1900		0	0	
Reference Time B (s)	12.4	19.3		0.0	6.4		0.0	0.6		9.0	11.9	
Reference Time (s)		19.3			6.4			0.6			11.9	
Adj Reference Time (s)		23.3			10.4			8.0			15.9	
Split Option												
Ref Time Combined (s)	0.0	11.3		0.0	6.4		0.0	0.6		0.0	3.9	
Ref Time Seperate (s)	4.4	5.2		0.0	5.6		0.0	0.6		1.0	2.1	
Reference Time (s)	11.3	11.3		6.4	6.4		0.6	0.6		3.9	3.9	
Adj Reference Time (s)	15.3	15.3		10.4	10.4		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	23.3		15.9									
Split Option (s)	25.7		16.0									
Minimum (s)	23.3		15.9		39.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	32.6%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	3.7			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	186	109	11	64
Demand Flow Rate, veh/h	190	111	11	65
Vehicles Circulating, veh/h	51	84	178	96
Vehicles Exiting, veh/h	110	105	63	99
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	3.6	3.3	3.3
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	190	111	11	65
Cap Entry Lane, veh/h	1310	1267	1151	1251
Entry HV Adj Factor	0.980	0.983	0.980	0.989
Flow Entry, veh/h	186	109	11	64
Cap Entry, veh/h	1284	1245	1128	1238
V/C Ratio	0.145	0.088	0.010	0.052
Control Delay, s/veh	4.0	3.6	3.3	3.3
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

DESIGN YEAR 2C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.965			0.919			0.996	
Flt Protected		0.991			0.968			0.998			0.985	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Flt Permitted		0.991			0.968			0.998			0.985	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	64	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.965			0.919			0.996	
Flt Protected		0.991			0.968			0.998			0.985	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Flt Permitted		0.991			0.968			0.998			0.985	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1827	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	47	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	64	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	96	0
Intersection Summary												

DESIGN YEAR 2C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	6	6	81	9	31	5	53	85	26	59	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	121	0	0	143	0	0	88	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.98	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1863	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1802	0		579	0		1693	0		544	
Reference Time A (s)	0.0	1.0	0.0		25.1	0.0		10.1	0.0		19.3	
Adj Saturation B (vph)	0	0	0		0	0		0	NA		NA	
Reference Time B (s)	8.2	9.0	13.4		16.2	8.3		17.9	NA		NA	
Reference Time (s)	1.0				16.2			10.1			19.3	
Adj Reference Time (s)	8.0				20.2			14.1			23.3	
Split Option												
Ref Time Combined (s)	0.0	1.0	0.0		8.2	0.0		9.9	0.0		5.6	
Ref Time Seperate (s)	0.2	0.4	5.4		0.6	0.3		3.7	1.7		3.7	
Reference Time (s)	1.0	1.0	8.2		8.2	9.9		9.9	5.6		5.6	
Adj Reference Time (s)	8.0	8.0	12.2		12.2	13.9		13.9	9.6		9.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.2		23.3									
Split Option (s)	20.2		23.5									
Minimum (s)	20.2		23.3		43.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	36.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	47	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	7	88	10	34	5	57	92	29	64	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	259	283	66	244	238	103	67	0	0	149	0	0
Stage 1	124	124	-	113	113	-	-	-	-	-	-	-
Stage 2	135	159	-	131	125	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	626	998	710	663	952	1535	-	-	1432	-	-
Stage 1	880	793	-	892	802	-	-	-	-	-	-	-
Stage 2	868	766	-	873	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	649	610	998	686	646	952	1535	-	-	1432	-	-
Mov Cap-2 Maneuver	649	610	-	686	646	-	-	-	-	-	-	-
Stage 1	876	776	-	888	799	-	-	-	-	-	-	-
Stage 2	824	763	-	841	775	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	11	0.3	2.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	737 736	1432	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022 0.179	0.02	-	-
HCM Control Delay (s)	7.4	0	-	10 11	7.6	0	-
HCM Lane LOS	A	A	-	B B	A A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.6	0.1	-	-

DESIGN YEAR 2C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	34	14	43	33	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	57	98	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 21.7% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.957				0.910	
Flt Protected	0.967			0.988		
Satd. Flow (prot)	1724	0	0	1840	1695	0
Flt Permitted	0.967			0.988		
Satd. Flow (perm)	1724	0	0	1840	1695	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

DESIGN YEAR 2C
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	25	10	32	24	48
Future Volume (vph)	53	25	10	32	24	48
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	72	34	14	43	33	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	57	98	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2C
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	66	31	13	40	30	60
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	98	0	0	53	90	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1747	0	0	1877	1710	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	116		0	404	1710	
Reference Time A (s)	100.4		0.0	15.6	6.3	
Adj Saturation B (vph)	NA		0	0	1710	
Reference Time B (s)	NA		8.8	11.4	6.3	
Reference Time (s)				11.4	6.3	
Adj Reference Time (s)				15.4	10.3	
Split Option						
Ref Time Combined (s)	6.7		0.0	3.4	6.3	
Ref Time Seperate (s)	4.6		0.8	2.5	2.1	
Reference Time (s)	6.7		3.4	3.4	6.3	
Adj Reference Time (s)	10.7		8.0	8.0	10.3	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.4			
Split Option (s)	10.7		18.3			
Minimum (s)	10.7		15.4		26.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization			21.7%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C
103: 3rd St SW & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 4.3

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations   

Traffic Vol, veh/h 53 25 10 32 24 48

Future Vol, veh/h 53 25 10 32 24 48

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 2 2 2 2 2 2

Mvmt Flow 72 34 14 43 33 65

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 137 66 98 0 - 0

Stage 1 66 - - - - -

Stage 2 71 - - - - -

Critical Hdwy 6.42 6.22 4.12 - - -

Critical Hdwy Stg 1 5.42 - - - - -

Critical Hdwy Stg 2 5.42 - - - - -

Follow-up Hdwy 3.518 3.318 2.218 - - -

Pot Cap-1 Maneuver 856 998 1495 - - -

Stage 1 957 - - - - -

Stage 2 952 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 847 998 1495 - - -

Mov Cap-2 Maneuver 847 - - - - -

Stage 1 947 - - - - -

Stage 2 952 - - - - -

Approach EB NB SB

HCM Control Delay, s 9.6 1.8 0

HCM LOS A

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 1495 - 890 - -

HCM Lane V/C Ratio 0.009 - 0.119 - -

HCM Control Delay (s) 7.4 0 9.6 - -

HCM Lane LOS A A A - -

HCM 95th %tile Q(veh) 0 - 0.4 - -

DESIGN YEAR 2C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	82	56	34	105	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	140	0	0	79	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.0%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.945			0.999			0.921			0.932	
Flt Protected					0.988			0.980			0.976	
Satd. Flow (prot)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Flt Permitted					0.988			0.980			0.976	
Satd. Flow (perm)	0	1760	0	0	1839	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Future Volume (vph)	0	60	41	25	77	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	82	56	34	105	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	140	0	0	79	0	0	2	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	75	51	31	96	1	30	0	43	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	126	0	0	129	0	0	73	0	0	3	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.94	0.85	0.95	0.99	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1784	0	0	1874	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1784			0	397			0	1443		
Reference Time A (s)	0.0	8.5			0.0	38.9			0.0	6.0		
Adj Saturation B (vph)	0	1784			NA	NA			0	0		
Reference Time B (s)	0.0	8.5			NA	NA			10.0	13.1		
Reference Time (s)	8.5				38.9				6.0			
Adj Reference Time (s)	12.5				42.9				10.0			
Split Option												
Ref Time Combined (s)	0.0	8.5			0.0	8.2			0.0	5.1		
Ref Time Seperate (s)	0.0	5.0			2.1	6.1			2.0	0.0		
Reference Time (s)	8.5	8.5			8.2	8.2			5.1	5.1		
Adj Reference Time (s)	12.5	12.5			12.2	12.2			9.1	9.1		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	42.9		10.0									
Split Option (s)	24.7		17.1									
Minimum (s)	24.7		10.0		34.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	41	25	77	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	56	34	105	1	33	0	46	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	106	0	0	138	0	0	284	284	110	307	312	106
Stage 1	-	-	-	-	-	-	110	110	-	174	174	-
Stage 2	-	-	-	-	-	-	174	174	-	133	138	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1485	-	-	1446	-	-	668	625	943	645	603	948
Stage 1	-	-	-	-	-	-	895	804	-	828	755	-
Stage 2	-	-	-	-	-	-	828	755	-	870	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1485	-	-	1446	-	-	655	609	943	602	588	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	655	609	-	602	588	-
Stage 1	-	-	-	-	-	-	895	804	-	828	736	-
Stage 2	-	-	-	-	-	-	806	736	-	827	782	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.8			10			9.9		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	798	1485	-	-	1446	-	-	736				
HCM Lane V/C Ratio	0.099	-	-	-	0.023	-	-	0.004				
HCM Control Delay (s)	10	0	-	-	7.5	0	-	9.9				
HCM Lane LOS	B	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0				

DESIGN YEAR 2C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Future Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.980			0.865			0.954	
Flt Protected		0.968									0.995	
Satd. Flow (prot)	0	1794	0	0	1825	0	0	1611	0	0	1768	0
Flt Permitted		0.968									0.995	
Satd. Flow (perm)	0	1794	0	0	1825	0	0	1611	0	0	1768	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	67	29	4	0	63	11	0	0	4	10	61	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	74	0	0	4	0	0	108	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.980			0.865			0.954	
Flt Protected		0.968									0.995	
Satd. Flow (prot)	0	1794	0	0	1825	0	0	1611	0	0	1768	0
Flt Permitted		0.968									0.995	
Satd. Flow (perm)	0	1794	0	0	1825	0	0	1611	0	0	1768	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			3482	
Travel Time (s)		29.8			26.6			25.9			79.1	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Future Volume (vph)	49	21	3	0	46	8	0	0	3	7	45	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	67	29	4	0	63	11	0	0	4	10	61	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	74	0	0	4	0	0	108	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	26	4	0	58	10	0	0	4	9	56	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	91	0	0	68	0	0	4	0	0	99	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.96	0.85	0.95	0.98	0.85	0.95	0.85	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1825	0	0	1858	0	0	1615	0	0	1795	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	163		0	1858		0	1615		0	780	
Reference Time A (s)	0.0	67.2		0.0	4.4		0.0	0.3		0.0	15.2	
Adj Saturation B (vph)	0	0		0	1858		0	1615		0	0	
Reference Time B (s)	12.1	14.0		0.0	4.4		0.0	0.3		8.6	14.6	
Reference Time (s)		14.0			4.4			0.3			14.6	
Adj Reference Time (s)		18.0			8.4			8.0			18.6	
Split Option												
Ref Time Combined (s)	0.0	6.0		0.0	4.4		0.0	0.3		0.0	6.6	
Ref Time Seperate (s)	4.1	1.7		0.0	3.7		0.0	0.0		0.6	3.8	
Reference Time (s)	6.0	6.0		4.4	4.4		0.3	0.3		6.6	6.6	
Adj Reference Time (s)	10.0	10.0		8.4	8.4		8.0	8.0		10.6	10.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.0		18.6									
Split Option (s)	18.4		18.6									
Minimum (s)	18.0		18.6		36.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	30.5%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	21	3	0	46	8	0	0	3	7	45	27
Future Vol, veh/h	49	21	3	0	46	8	0	0	3	7	45	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	29	4	0	63	11	0	0	4	10	61	37
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	33	0	0	283	239	31	236	236	69
Stage 1	-	-	-	-	-	-	165	165	-	69	69	-
Stage 2	-	-	-	-	-	-	118	74	-	167	167	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1579	-	-	669	662	1043	718	665	994
Stage 1	-	-	-	-	-	-	837	762	-	941	837	-
Stage 2	-	-	-	-	-	-	887	833	-	835	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1579	-	-	577	632	1043	691	635	994
Mov Cap-2 Maneuver	-	-	-	-	-	-	577	632	-	691	635	-
Stage 1	-	-	-	-	-	-	799	728	-	899	837	-
Stage 2	-	-	-	-	-	-	792	833	-	794	726	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5			0			8.5			10.8		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1043	1526	-	-	1579	-	-	730				
HCM Lane V/C Ratio	0.004	0.044	-	-	-	-	-	0.147				
HCM Control Delay (s)	8.5	7.5	0	-	0	-	-	10.8				
HCM Lane LOS	A	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5				

DESIGN YEAR 2C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.895						0.926	
Flt Protected					0.989			0.994				
Satd. Flow (prot)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Flt Permitted					0.989			0.994				
Satd. Flow (perm)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	0	0	16	0	57	18	144	0	0	101	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	73	0	0	162	0	0	223	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.3%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.895					0.926		
Flt Protected					0.989					0.994		
Satd. Flow (prot)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Flt Permitted					0.989					0.994		
Satd. Flow (perm)	0	0	0	0	1649	0	0	1852	0	0	1725	0
Link Speed (mph)					30					30		
Link Distance (ft)					364					4320		
Travel Time (s)					8.3					18.4		
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Future Volume (vph)	0	0	0	12	0	42	13	106	0	0	74	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	16	0	57	18	144	0	0	101	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	73	0	0	162	0	0	223	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	0	53	16	133	0	0	93	113
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	68	0	0	149	0	0	205	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.87	0.85	0.95	0.99	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	0	0	0	1660	0	0	1890	0	0	1744	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	378		0	722		0	1744	
Reference Time A (s)	0.0	0.0		0.0	21.4		0.0	24.7		0.0	14.1	
Adj Saturation B (vph)	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		9.0	12.9		NA	NA		NA	NA	
Reference Time (s)	0.0			12.9			24.7			14.1		
Adj Reference Time (s)	8.0			16.9			28.7			18.1		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	4.9		0.0	9.4		0.0	14.1	
Ref Time Seperate (s)	0.0	0.0		1.0	0.0		1.1	8.4		0.0	6.4	
Reference Time (s)	0.0	0.0		4.9	4.9		9.4	9.4		14.1	14.1	
Adj Reference Time (s)	0.0	0.0		8.9	8.9		13.4	13.4		18.1	18.1	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.9		28.7									
Split Option (s)	8.9		31.6									
Minimum (s)	8.9		28.7		37.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	31.3%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C

111: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Future Vol, veh/h	0	0	0	12	0	42	13	106	0	0	74	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	0	57	18	144	0	0	101	122

Major/Minor	Minor1	Major1	Major2									
Conflicting Flow All	342	403	144	223	0	-	-	-	-	0		
Stage 1	180	180	-	-	-	-	-	-	-	-		
Stage 2	162	223	-	-	-	-	-	-	-	-		
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	-		
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	-		
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	-		
Pot Cap-1 Maneuver	654	536	903	1346	-	0	0	-	-	-		
Stage 1	851	750	-	-	-	0	0	-	-	-		
Stage 2	867	719	-	-	-	0	0	-	-	-		
Platoon blocked, %					-			-		-		
Mov Cap-1 Maneuver	644	0	903	1346	-	-	-	-	-	-		
Mov Cap-2 Maneuver	644	0	-	-	-	-	-	-	-	-		
Stage 1	838	0	-	-	-	-	-	-	-	-		
Stage 2	867	0	-	-	-	-	-	-	-	-		

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBTWBLn1	SBT	SBR
Capacity (veh/h)	1346	-	829	-
HCM Lane V/C Ratio	0.013	-	0.089	-
HCM Control Delay (s)	7.7	0	9.8	-
HCM Lane LOS	A	A	A	-
HCM 95th %tile Q(veh)	0	-	0.3	-

DESIGN YEAR 2C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	64	9	142	119	0	78
Future Volume (vph)	64	9	142	119	0	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984		0.938			
Flt Protected	0.958					
Satd. Flow (prot)	1756	0	1747	0	0	1863
Flt Permitted	0.958					
Satd. Flow (perm)	1756	0	1747	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	87	12	193	162	0	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	99	0	355	0	0	106
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 30.2% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2C
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.984		0.938			
Flt Protected	0.958					
Satd. Flow (prot)	1756	0	1747	0	0	1863
Flt Permitted	0.958					
Satd. Flow (perm)	1756	0	1747	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	64	9	142	119	0	78
Future Volume (vph)	64	9	142	119	0	78
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	87	12	193	162	0	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	99	0	355	0	0	106
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2C
114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	80	11	178	149	0	98
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	91	0	326	0	0	98
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.94	0.85	0.93	0.85	0.95	1.00
Saturated Flow (vph)	1783	0	1770	0	0	1900
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	119		1770		0	1900
Reference Time A (s)	92.1		22.1		0.0	6.2
Adj Saturation B (vph)	NA		1770		NA	NA
Reference Time B (s)	NA		22.1		NA	NA
Reference Time (s)			22.1			6.2
Adj Reference Time (s)			26.1			10.2
Split Option						
Ref Time Combined (s)	6.1		22.1		0.0	6.2
Ref Time Seperate (s)	5.4		12.0		0.0	6.2
Reference Time (s)	6.1		22.1		6.2	6.2
Adj Reference Time (s)	10.1		26.1		10.2	10.2
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		26.1			
Split Option (s)	10.1		36.3			
Minimum (s)	10.1		26.1		36.3	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization			30.2%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2C
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection

Int Delay, s/veh 2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	9	142	119	0	78
Future Vol, veh/h	64	9	142	119	0	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	12	193	162	0	106

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	380 274	0	0 355
Stage 1	274	-	- -
Stage 2	106	-	- -
Critical Hdwy	6.42 6.22	-	- 4.12
Critical Hdwy Stg 1	5.42	-	- -
Critical Hdwy Stg 2	5.42	-	- -
Follow-up Hdwy	3.518 3.318	-	- 2.218
Pot Cap-1 Maneuver	622 765	-	- 1204
Stage 1	772	-	- -
Stage 2	918	-	- -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	622 765	-	- 1204
Mov Cap-2 Maneuver	622	-	- -
Stage 1	772	-	- -
Stage 2	918	-	- -

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	- 637	1204	-
HCM Lane V/C Ratio	-	- 0.156	-	-
HCM Control Delay (s)	-	- 11.7	0	-
HCM Lane LOS	-	- B	A	-
HCM 95th %tile Q(veh)	-	- 0.5	0	-

DESIGN YEAR 2C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.937				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	120	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.8%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994						0.937				
Flt Protected		0.954									0.953	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Flt Permitted		0.954									0.953	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1775	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	88	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	120	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	123	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	0	6	0	0	0	0	8	6	110	3	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	148	0	0	0	0	0	14	0	0	113	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1807	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	123		0	0		0	1770		0	122	
Reference Time A (s)	0.0	143.6		0.0	0.0		0.0	0.9		0.0	110.5	
Adj Saturation B (vph)	0	0		0	0		0	1770		0	0	
Reference Time B (s)	17.4	17.8		0.0	0.0		0.0	0.9		15.3	15.5	
Reference Time (s)		17.8			0.0			0.9			15.5	
Adj Reference Time (s)		21.8			8.0			8.0			19.5	
Split Option												
Ref Time Combined (s)	0.0	9.8		0.0	0.0		0.0	0.9		0.0	7.5	
Ref Time Seperate (s)	9.4	0.0		0.0	0.0		0.0	0.5		7.3	0.2	
Reference Time (s)	9.8	9.8		0.0	0.0		0.9	0.9		7.5	7.5	
Adj Reference Time (s)	13.8	13.8		0.0	0.0		8.0	8.0		11.5	11.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.8		19.5									
Split Option (s)	13.8		19.5									
Minimum (s)	13.8		19.5		33.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	27.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C

118: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	88	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	0	7	0	0	0	0	8	7	120	3	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	255	258	3	-	0	0	15	0	0
Stage 1	243	243	-	-	-	-	-	-	-
Stage 2	12	15	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	734	646	1081	0	-	-	1603	-	0
Stage 1	797	705	-	0	-	-	-	-	0
Stage 2	1011	883	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	679	0	1081	-	-	-	1603	-	-
Mov Cap-2 Maneuver	679	0	-	-	-	-	-	-	-
Stage 1	797	0	-	-	-	-	-	-	-
Stage 2	935	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0	7.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	690	1603	-
HCM Lane V/C Ratio	-	-	0.232	0.075	-
HCM Control Delay (s)	-	-	11.8	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

DESIGN YEAR 2C

124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.971			0.977			0.980	
Flt Protected		0.973						0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Flt Permitted		0.973						0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	4	5	1	82	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	106	0	0	30	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.9%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.971			0.977			0.980	
Flt Protected		0.973						0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Flt Permitted		0.973						0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1809	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	60	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	4	5	1	82	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	106	0	0	30	0	0	20	0
Intersection Summary												

DESIGN YEAR 2C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	4	5	1	75	21	19	5	5	5	11	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	19	0	0	98	0	0	29	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1837	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	237		0	1839		0	829		0	1839	
Reference Time A (s)	0.0	9.5		0.0	6.4		0.0	4.2		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	9.3		8.1	14.4		9.2	9.9		8.3	9.2	
Reference Time (s)	9.3			6.4			4.2			1.2		
Adj Reference Time (s)	13.3			10.4			8.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	6.4		0.0	1.9		0.0	1.2	
Ref Time Seperate (s)	0.7	0.3		0.1	4.9		1.2	0.3		0.3	0.7	
Reference Time (s)	1.3	1.3		6.4	6.4		1.9	1.9		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		10.4	10.4		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.3		8.2									
Split Option (s)	18.4		16.0									
Minimum (s)	13.3		8.2		21.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.9%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2C
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	60	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	5	1	82	23	20	5	5	5	12	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	9	0	0	132	136	7	130	127	94
Stage 1	-	-	-	-	-	-	29	29	-	96	96	-
Stage 2	-	-	-	-	-	-	103	107	-	34	31	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1611	-	-	840	755	1075	843	764	963
Stage 1	-	-	-	-	-	-	988	871	-	911	815	-
Stage 2	-	-	-	-	-	-	903	807	-	982	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1486	-	-	1611	-	-	822	749	1075	829	758	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	749	-	829	758	-
Stage 1	-	-	-	-	-	-	981	865	-	905	814	-
Stage 2	-	-	-	-	-	-	886	806	-	964	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			9.4			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	842	1486	-	-	1611	-	-	799				
HCM Lane V/C Ratio	0.037	0.007	-	-	0.001	-	-	0.026				
HCM Control Delay (s)	9.4	7.4	0	-	7.2	0	-	9.6				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.984			0.931			0.972	
Flt Protected		0.978			0.999			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.999			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	27	20	12	1	29	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	34	0	0	39	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.7%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.984			0.931			0.972	
Flt Protected		0.978			0.999			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.999			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1831	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	21	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	27	20	12	1	29	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	34	0	0	39	0	0	24	0
Intersection Summary												

DESIGN YEAR 2C
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C
125: 4th St SE & 1st Ave E

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	25	19	11	1	26	4	8	10	19	13	5	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	55	0	0	31	0	0	36	0	0	23	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1862	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	386		0	1856		0	1701		0	785	
Reference Time A (s)	0.0	17.1		0.0	2.0		0.0	2.6		0.0	3.4	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.7	11.7		8.1	10.0		8.5	10.5		8.8	9.5	
Reference Time (s)	11.7		2.0			2.6			3.4			
Adj Reference Time (s)	15.7		8.0			8.0			8.0			
Split Option												
Ref Time Combined (s)	0.0	3.7		0.0	2.0		0.0	2.5		0.0	1.5	
Ref Time Seperate (s)	1.7	1.3		0.1	1.7		0.5	0.7		0.8	0.3	
Reference Time (s)	3.7	3.7		2.0	2.0		2.5	2.5		1.5	1.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.7		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	15.7		8.0		23.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	21	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	20	12	1	29	4	8	11	20	14	5	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.2	7.1	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	4%	56%
Vol Thru, %	28%	34%	84%	22%
Vol Right, %	52%	20%	12%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	25	18
LT Vol	6	20	1	10
Through Vol	8	15	21	4
RT Vol	15	9	3	4
Lane Flow Rate	39	60	34	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.067	0.038	0.028
Departure Headway (Hd)	3.845	4.039	4.027	4.104
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	925	885	886	867
Service Time	1.893	2.071	2.064	2.153
HCM Lane V/C Ratio	0.042	0.068	0.038	0.028
HCM Control Delay	7.1	7.4	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

DESIGN YEAR 2C

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.7%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2C
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2C
126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	38	56	4	3	0	65	8	13	3	16	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	115	0	0	6	0	0	85	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1745			0	710			0	451		
Reference Time A (s)	0.0	7.9			0.0	1.1			0.0	22.6		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	9.4	15.9			8.2	8.4			12.3	13.7		
Reference Time (s)	7.9				1.1				13.7			
Adj Reference Time (s)	11.9				8.0				17.7			
Split Option												
Ref Time Combined (s)	0.0	7.9			0.0	0.4			0.0	5.7		
Ref Time Seperate (s)	1.4	2.6			0.2	0.2			4.3	0.5		
Reference Time (s)	7.9	7.9			0.4	0.4			5.7	5.7		
Adj Reference Time (s)	11.9	11.9			8.0	8.0			9.7	9.7		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.9		17.7									
Split Option (s)	19.9		17.7									
Minimum (s)	11.9		17.7		29.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	41	61	4	3	0	71	8	14	3	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	92	125	7	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.135	0.008	0.024
Departure Headway (Hd)	4.244	3.877	4.347	4.262
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	915	812	830
Service Time	2.3	1.943	2.434	2.338
HCM Lane V/C Ratio	0.11	0.137	0.009	0.024
HCM Control Delay	7.8	7.6	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0	0.1

DESIGN YEAR 2C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936			0.940			0.933			0.990	
Flt Protected		0.992			0.989			0.989			0.960	
Satd. Flow (prot)	0	1730	0	0	1732	0	0	1719	0	0	1770	0
Flt Permitted		0.992			0.989			0.989			0.960	
Satd. Flow (perm)	0	1730	0	0	1732	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	14	34	43	29	41	56	33	39	71	94	11	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	126	0	0	143	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	29.4%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2C

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.936			0.940			0.933			0.990	
Flt Protected		0.992			0.989			0.989			0.960	
Satd. Flow (prot)	0	1730	0	0	1732	0	0	1719	0	0	1770	0
Flt Permitted		0.992			0.989			0.989			0.960	
Satd. Flow (perm)	0	1730	0	0	1732	0	0	1719	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Future Volume (vph)	10	25	32	21	30	41	24	29	52	69	8	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	34	43	29	41	56	33	39	71	94	11	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	126	0	0	143	0	0	113	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2C

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	31	40	26	38	51	30	36	65	86	10	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	84	0	0	115	0	0	131	0	0	104	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1751	0	0	1753	0	0	1739	0	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1466			0	1115			0	1838	0	617
Reference Time A (s)	0.0	6.9			0.0	12.4			0.0	8.6	0.0	20.2
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	8.8	13.7			9.7	15.9			10.0	17.1	13.7	14.9
Reference Time (s)	6.9				12.4				8.6		14.9	
Adj Reference Time (s)	10.9				16.4				12.6		18.9	
Split Option												
Ref Time Combined (s)	0.0	5.7			0.0	7.9			0.0	9.1	0.0	6.9
Ref Time Seperate (s)	0.8	2.2			1.7	2.6			2.0	2.5	5.7	0.7
Reference Time (s)	5.7	5.7			7.9	7.9			9.1	9.1	6.9	6.9
Adj Reference Time (s)	9.7	9.7			11.9	11.9			13.1	13.1	10.9	10.9
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.4		18.9									
Split Option (s)	21.6		24.0									
Minimum (s)	16.4		18.9		35.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.4%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	3.9			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	91	126	143	113
Demand Flow Rate, veh/h	93	129	146	115
Vehicles Circulating, veh/h	137	88	145	106
Vehicles Exiting, veh/h	84	203	85	111
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	3.8	4.1	3.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	93	129	146	115
Cap Entry Lane, veh/h	1200	1261	1190	1238
Entry HV Adj Factor	0.982	0.978	0.981	0.981
Flow Entry, veh/h	91	126	143	113
Cap Entry, veh/h	1178	1234	1167	1215
V/C Ratio	0.078	0.102	0.123	0.093
Control Delay, s/veh	3.7	3.8	4.1	3.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

DESIGN YEAR 2C

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	35	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	14	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.9%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1170		872			142
Travel Time (s)	26.6		19.8			3.2

Intersection Summary

Area Type: Other

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	26	10	0	28	19
Future Volume (vph)	0	26	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	35	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	14	0	0	64
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2C

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	33	13	0	35	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	33	0	13	0	0	59
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	36.2		0.8		0.0	38.8
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.8		10.3	11.8
Reference Time (s)			0.8			11.8
Adj Reference Time (s)			8.0			15.8
Split Option						
Ref Time Combined (s)	2.4		0.8		0.0	3.8
Ref Time Seperate (s)	0.0		0.8		2.3	1.5
Reference Time (s)	2.4		0.8		3.8	3.8
Adj Reference Time (s)	8.0		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.8			
Split Option (s)	8.0		16.0			
Minimum (s)	8.0		15.8		23.8	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	19.9%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	26	10	0	28	19
Future Vol, veh/h	0	26	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	35	14	0	38	26
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	116	14	0	0	14	0
Stage 1	14	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	880	1066	-	-	1604	-
Stage 1	1009	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	1066	-	-	1604	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	8.5		0		4.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 1066	1604	-		
HCM Lane V/C Ratio	-	- 0.033	0.024	-		
HCM Control Delay (s)	-	- 8.5	7.3	0		
HCM Lane LOS	-	- A	A	A		
HCM 95th %tile Q(veh)	-	- 0.1	0.1	-		

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	5
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	5
Total Delay (hr)	19
Stops / Veh	0.43
Stops (#)	6229
Average Speed (mph)	28
Total Travel Time (hr)	128
Distance Traveled (mi)	3538
Fuel Consumed (gal)	192
Fuel Economy (mpg)	18.5
CO Emissions (kg)	13.40
NOx Emissions (kg)	2.61
VOC Emissions (kg)	3.10
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	36.8

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	199	324	414	473	1410
Control Delay / Veh (s/v)	7	10	13	8	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	10	13	8	10
Total Delay (hr)	0	1	1	1	4
Stops / Veh	0.36	0.46	0.63	0.48	0.50
Stops (#)	71	149	262	228	710
Average Speed (mph)	23	14	20	24	21
Total Travel Time (hr)	2	2	5	5	13
Distance Traveled (mi)	40	24	92	122	277
Fuel Consumed (gal)	2	2	6	7	18
Fuel Economy (mpg)	17.2	9.7	14.5	17.2	15.3
CO Emissions (kg)	0.16	0.17	0.44	0.50	1.27
NOx Emissions (kg)	0.03	0.03	0.09	0.10	0.25
VOC Emissions (kg)	0.04	0.04	0.10	0.11	0.29
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	217	270	397	884
Control Delay / Veh (s/v)	18	1	0	5
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	18	1	0	5
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.28	0.00	0.33
Stops (#)	217	75	0	292
Average Speed (mph)	10	25	30	23
Total Travel Time (hr)	2	1	3	5
Distance Traveled (mi)	17	16	88	121
Fuel Consumed (gal)	3	1	4	7
Fuel Economy (mpg)	6.4	13.8	24.3	16.2
CO Emissions (kg)	0.19	0.08	0.25	0.52
NOx Emissions (kg)	0.04	0.02	0.05	0.10
VOC Emissions (kg)	0.04	0.02	0.06	0.12
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	275	275
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	1	1
Distance Traveled (mi)	20	20
Fuel Consumed (gal)	1	1
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.06	0.06
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	142	75	474	341	1032
Control Delay / Veh (s/v)	4	8	13	13	11
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	8	13	13	11
Total Delay (hr)	0	0	2	1	3
Stops / Veh	0.24	0.53	0.68	0.70	0.62
Stops (#)	34	40	324	239	637
Average Speed (mph)	25	26	22	19	22
Total Travel Time (hr)	1	1	6	3	11
Distance Traveled (mi)	25	29	134	59	247
Fuel Consumed (gal)	1	2	9	5	16
Fuel Economy (mpg)	18.7	18.9	15.6	12.7	15.4
CO Emissions (kg)	0.09	0.11	0.60	0.32	1.12
NOx Emissions (kg)	0.02	0.02	0.12	0.06	0.22
VOC Emissions (kg)	0.02	0.02	0.14	0.08	0.26
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	116	48	92	256
Control Delay / Veh (s/v)	0	10	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.07	0.21
Stops (#)	0	48	6	54
Average Speed (mph)	30	21	30	27
Total Travel Time (hr)	0	0	1	1
Distance Traveled (mi)	15	10	16	40
Fuel Consumed (gal)	1	1	1	2
Fuel Economy (mpg)	NA	NA	NA	19.5
CO Emissions (kg)	0.04	0.05	0.05	0.14
NOx Emissions (kg)	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	353	77	286	716
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.11
Stops (#)	0	77	0	77
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	1	1	4
Distance Traveled (mi)	61	16	41	118
Fuel Consumed (gal)	3	1	2	5
Fuel Economy (mpg)	24.3	14.8	24.3	22.3
CO Emissions (kg)	0.18	0.08	0.12	0.37
NOx Emissions (kg)	0.03	0.01	0.02	0.07
VOC Emissions (kg)	0.04	0.02	0.03	0.09
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	102	4	378	397	881
Control Delay / Veh (s/v)	46	38	3	1	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	46	38	3	1	8
Total Delay (hr)	1	0	0	0	2
Stops / Veh	1.00	1.00	0.70	0.29	0.55
Stops (#)	102	4	264	116	486
Average Speed (mph)	21	13	17	27	22
Total Travel Time (hr)	3	0	1	1	6
Distance Traveled (mi)	71	1	14	38	123
Fuel Consumed (gal)	4	0	2	2	9
Fuel Economy (mpg)	16.0	NA	6.2	16.3	13.5
CO Emissions (kg)	0.31	0.01	0.16	0.16	0.64
NOx Emissions (kg)	0.06	0.00	0.03	0.03	0.12
VOC Emissions (kg)	0.07	0.00	0.04	0.04	0.15
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	82	204	307	405	998
Control Delay / Veh (s/v)	28	24	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	28	24	0	2	8
Total Delay (hr)	1	1	0	0	2
Stops / Veh	1.00	1.00	0.00	0.46	0.47
Stops (#)	82	204	0	185	471
Average Speed (mph)	13	19	30	25	21
Total Travel Time (hr)	1	4	1	2	8
Distance Traveled (mi)	14	68	44	39	164
Fuel Consumed (gal)	1	5	2	3	11
Fuel Economy (mpg)	9.3	13.8	24.3	13.8	14.9
CO Emissions (kg)	0.10	0.34	0.13	0.20	0.77
NOx Emissions (kg)	0.02	0.07	0.02	0.04	0.15
VOC Emissions (kg)	0.02	0.08	0.03	0.05	0.18
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	170	175	31	376
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.22	1.00	0.18
Stops (#)	0	38	31	69
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	3
Distance Traveled (mi)	56	6	12	74
Fuel Consumed (gal)	2	0	1	4
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.16	0.03	0.05	0.25
NOx Emissions (kg)	0.03	0.01	0.01	0.05
VOC Emissions (kg)	0.04	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	56	159	10	85	310
Control Delay / Veh (s/v)	11	11	0	0	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	11	0	0	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.00	0.08	0.72
Stops (#)	56	159	0	7	222
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	2	0	1	3
Distance Traveled (mi)	5	32	0	23	60
Fuel Consumed (gal)	1	3	0	1	4
Fuel Economy (mpg)	NA	12.5	NA	NA	14.4
CO Emissions (kg)	0.05	0.18	0.00	0.07	0.29
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.00	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	6	5	48	63	122
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	6	5	48	63	122
Average Speed (mph)	20	22	24	25	24
Total Travel Time (hr)	0	0	1	1	1
Distance Traveled (mi)	1	1	13	18	32
Fuel Consumed (gal)	0	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	15.1	14.7
CO Emissions (kg)	0.00	0.01	0.06	0.08	0.15
NOx Emissions (kg)	0.00	0.00	0.01	0.02	0.03
VOC Emissions (kg)	0.00	0.00	0.01	0.02	0.04
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	4	503	467	974
Control Delay / Veh (s/v)	11	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.03	0.00	0.02
Stops (#)	4	14	0	18
Average Speed (mph)	20	30	30	30
Total Travel Time (hr)	0	4	4	9
Distance Traveled (mi)	1	130	132	262
Fuel Consumed (gal)	0	5	5	11
Fuel Economy (mpg)	NA	23.9	24.3	24.0
CO Emissions (kg)	0.00	0.38	0.38	0.76
NOx Emissions (kg)	0.00	0.07	0.07	0.15
VOC Emissions (kg)	0.00	0.09	0.09	0.18
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	107	124	63	26	320
Control Delay / Veh (s/v)	1	2	10	11	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	11	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.39	1.00	1.00	0.48
Stops (#)	15	48	63	26	152
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	2	1	1	0	3
Distance Traveled (mi)	47	22	18	1	87
Fuel Consumed (gal)	2	1	1	0	5
Fuel Economy (mpg)	23.1	18.1	14.6	NA	18.6
CO Emissions (kg)	0.14	0.09	0.08	0.02	0.33
NOx Emissions (kg)	0.03	0.02	0.02	0.00	0.06
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	25	94	42	9	170
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.30
Stops (#)	0	0	42	9	51
Average Speed (mph)	30	30	9	13	22
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	3	6	1	1	11
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.02	0.03	0.01	0.06
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	68	132	52	252
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.22
Stops (#)	4	0	52	56
Average Speed (mph)	29	30	18	26
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	4	17	6	27
Fuel Consumed (gal)	0	1	1	2
Fuel Economy (mpg)	NA	NA	NA	17.7
CO Emissions (kg)	0.01	0.05	0.05	0.11
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	52	37	15	104
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.40	0.91
Stops (#)	52	37	6	95
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	7	5	0	12
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	9.8
CO Emissions (kg)	0.05	0.03	0.00	0.08
NOx Emissions (kg)	0.01	0.01	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	108	71	23	64	266
Control Delay / Veh (s/v)	9	9	8	4	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	9	8	4	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	0.58	0.59	0.65	0.28	0.52
Stops (#)	63	42	15	18	138
Average Speed (mph)	22	19	10	24	21
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	24	9	1	10	43
Fuel Consumed (gal)	2	1	0	1	3
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.11	0.05	0.01	0.04	0.21
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.05
Unservd Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	216	216
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	6	6
Distance Traveled (mi)	356	356
Fuel Consumed (gal)	12	12
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.85	0.85
NOx Emissions (kg)	0.17	0.17
VOC Emissions (kg)	0.20	0.20
Unservd Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	62	94	52	88	296
Control Delay / Veh (s/v)	2	2	10	11	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	10	11	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.35	0.33	1.00	1.00	0.65
Stops (#)	22	31	52	88	193
Average Speed (mph)	33	34	20	17	30
Total Travel Time (hr)	1	2	0	1	4
Distance Traveled (mi)	23	65	8	10	106
Fuel Consumed (gal)	1	3	1	1	6
Fuel Economy (mpg)	21.6	23.7	NA	9.2	18.9
CO Emissions (kg)	0.07	0.19	0.05	0.08	0.39
NOx Emissions (kg)	0.01	0.04	0.01	0.01	0.08
VOC Emissions (kg)	0.02	0.04	0.01	0.02	0.09
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	79	86	40	205
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.27	0.00	1.00	0.30
Stops (#)	21	0	40	61
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	14	18	5	36
Fuel Consumed (gal)	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	19.4
CO Emissions (kg)	0.05	0.05	0.03	0.13
NOx Emissions (kg)	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	103	132	14	32	281
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.06	0.17	1.00	1.00	0.26
Stops (#)	6	22	14	32	74
Average Speed (mph)	30	29	23	20	28
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	27	20	4	5	55
Fuel Consumed (gal)	1	1	0	0	3
Fuel Economy (mpg)	23.5	NA	NA	NA	19.7
CO Emissions (kg)	0.08	0.07	0.02	0.03	0.20
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.02	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	53	74	40	40	207
Control Delay / Veh (s/v)	1	1	9	9	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	1	9	9	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.25	0.23	1.00	1.00	0.53
Stops (#)	13	17	40	40	110
Average Speed (mph)	33	34	20	18	29
Total Travel Time (hr)	0	1	0	0	2
Distance Traveled (mi)	11	27	6	5	49
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	23.0	NA	NA	17.8
CO Emissions (kg)	0.04	0.08	0.04	0.03	0.19
NOx Emissions (kg)	0.01	0.02	0.01	0.01	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 7th St SW/Beltline Rd & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	171	100	10	59	340
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	171	100	10	59	340
Average Speed (mph)	30	30	30	35	30
Total Travel Time (hr)	3	1	0	0	4
Distance Traveled (mi)	82	26	7	10	125
Fuel Consumed (gal)	4	2	0	1	7
Fuel Economy (mpg)	19.0	16.0	NA	NA	17.6
CO Emissions (kg)	0.30	0.11	0.02	0.06	0.50
NOx Emissions (kg)	0.06	0.02	0.00	0.01	0.10
VOC Emissions (kg)	0.07	0.03	0.01	0.01	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	16	121	142	88	367
Control Delay / Veh (s/v)	10	11	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	11	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.34	0.47
Stops (#)	16	121	7	30	174
Average Speed (mph)	23	24	30	27	27
Total Travel Time (hr)	0	2	3	0	5
Distance Traveled (mi)	4	42	81	11	138
Fuel Consumed (gal)	0	3	3	1	7
Fuel Economy (mpg)	NA	15.8	24.0	NA	19.8
CO Emissions (kg)	0.02	0.19	0.24	0.04	0.49
NOx Emissions (kg)	0.00	0.04	0.05	0.01	0.10
VOC Emissions (kg)	0.00	0.04	0.05	0.01	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	98	52	90	240
Control Delay / Veh (s/v)	10	1	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.29	0.00	0.47
Stops (#)	98	15	0	113
Average Speed (mph)	22	21	30	27
Total Travel Time (hr)	1	0	2	3
Distance Traveled (mi)	22	1	51	74
Fuel Consumed (gal)	2	0	2	4
Fuel Economy (mpg)	13.3	NA	24.3	19.1
CO Emissions (kg)	0.11	0.01	0.15	0.27
NOx Emissions (kg)	0.02	0.00	0.03	0.05
VOC Emissions (kg)	0.03	0.00	0.03	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	127	129	73	2	331
Control Delay / Veh (s/v)	0	2	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.31	1.00	1.00	0.35
Stops (#)	0	40	73	2	115
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	1	0	2
Distance Traveled (mi)	19	29	9	0	57
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	19.9	NA	NA	17.9
CO Emissions (kg)	0.05	0.10	0.06	0.00	0.22
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	92	68	4	99	263
Control Delay / Veh (s/v)	2	0	8	11	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	8	11	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.38	0.00	1.00	1.00	0.52
Stops (#)	35	0	4	99	138
Average Speed (mph)	29	30	23	26	28
Total Travel Time (hr)	2	1	0	2	5
Distance Traveled (mi)	47	15	1	65	128
Fuel Consumed (gal)	2	1	0	3	6
Fuel Economy (mpg)	21.7	NA	NA	18.9	20.4
CO Emissions (kg)	0.15	0.04	0.00	0.24	0.44
NOx Emissions (kg)	0.03	0.01	0.00	0.05	0.09
VOC Emissions (kg)	0.04	0.01	0.00	0.06	0.10
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	67	149	205	421
Control Delay / Veh (s/v)	10	1	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.17	0.00	0.22
Stops (#)	67	26	0	93
Average Speed (mph)	51	29	30	40
Total Travel Time (hr)	2	1	2	5
Distance Traveled (mi)	124	23	53	200
Fuel Consumed (gal)	6	1	2	9
Fuel Economy (mpg)	22.2	20.6	24.3	22.5
CO Emissions (kg)	0.39	0.08	0.15	0.62
NOx Emissions (kg)	0.08	0.02	0.03	0.12
VOC Emissions (kg)	0.09	0.02	0.04	0.14
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	91	327	98	516
Control Delay / Veh (s/v)	12	0	0	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	0	0	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.00	0.18
Stops (#)	91	0	0	91
Average Speed (mph)	25	30	30	29
Total Travel Time (hr)	2	3	2	7
Distance Traveled (mi)	47	85	59	190
Fuel Consumed (gal)	3	3	2	9
Fuel Economy (mpg)	17.7	24.3	24.3	22.2
CO Emissions (kg)	0.18	0.24	0.17	0.60
NOx Emissions (kg)	0.04	0.05	0.03	0.12
VOC Emissions (kg)	0.04	0.06	0.04	0.14
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	148	14	113	275
Control Delay / Veh (s/v)	12	0	1	7
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	12	0	1	7
Total Delay (hr)	0	0	0	1
Stops / Veh	1.00	0.00	0.14	0.60
Stops (#)	148	0	16	164
Average Speed (mph)	12	30	29	19
Total Travel Time (hr)	1	0	1	1
Distance Traveled (mi)	10	2	17	29
Fuel Consumed (gal)	2	0	1	2
Fuel Economy (mpg)	6.1	NA	NA	11.7
CO Emissions (kg)	0.11	0.01	0.06	0.17
NOx Emissions (kg)	0.02	0.00	0.01	0.03
VOC Emissions (kg)	0.03	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	18	98	28	18	162
Control Delay / Veh (s/v)	2	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.39	0.01	1.00	1.00	0.33
Stops (#)	7	1	28	18	54
Average Speed (mph)	20	30	13	13	24
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	1	12	2	1	16
Fuel Consumed (gal)	0	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	15.0
CO Emissions (kg)	0.00	0.04	0.02	0.01	0.07
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	54	31	36	22	143
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	54	31	36	22	143
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	7	4	2	1	14
Fuel Consumed (gal)	1	0	0	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	8.7
CO Emissions (kg)	0.05	0.03	0.02	0.01	0.11
NOx Emissions (kg)	0.01	0.01	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.00	0.03
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	115	6	86	19	226
Control Delay / Veh (s/v)	8	7	8	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	7	8	7	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	115	6	86	19	226
Average Speed (mph)	25	14	26	15	25
Total Travel Time (hr)	2	0	1	0	3
Distance Traveled (mi)	40	0	38	1	79
Fuel Consumed (gal)	2	0	2	0	5
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.17	0.00	0.15	0.01	0.34
NOx Emissions (kg)	0.03	0.00	0.03	0.00	0.07
VOC Emissions (kg)	0.04	0.00	0.03	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	84	116	132	104	436
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	84	116	132	104	436
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	2	3	1	5
Distance Traveled (mi)	3	55	79	19	156
Fuel Consumed (gal)	1	3	4	1	9
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.7
CO Emissions (kg)	0.04	0.20	0.28	0.09	0.62
NOx Emissions (kg)	0.01	0.04	0.05	0.02	0.12
VOC Emissions (kg)	0.01	0.05	0.06	0.02	0.14
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	32	13	59	104
Control Delay / Veh (s/v)	8	0	2	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	8	0	2	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.37	0.52
Stops (#)	32	0	22	54
Average Speed (mph)	23	30	19	23
Total Travel Time (hr)	0	0	0	0
Distance Traveled (mi)	7	2	2	11
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA
CO Emissions (kg)	0.04	0.01	0.01	0.06
NOx Emissions (kg)	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.01	0.00	0.00	0.01
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	5
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	5
Total Delay (hr)	19
Stops / Veh	0.43
Stops (#)	6229
Average Speed (mph)	28
Total Travel Time (hr)	128
Distance Traveled (mi)	3538
Fuel Consumed (gal)	192
Fuel Economy (mpg)	18.5
CO Emissions (kg)	13.40
NOx Emissions (kg)	2.61
VOC Emissions (kg)	3.10
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	36.8

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.933			0.929			0.968			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1803	0	1770	3405	0
Flt Permitted		0.928			0.945					0.459		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1803	0	855	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			34			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	80	107	42	124	186	0	299	80	5	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	379	0	5	413	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	24.0	24.0		24.0	24.0		26.0	26.0		26.0	26.0	
Total Split (%)	48.0%	48.0%		48.0%	48.0%		52.0%	52.0%		52.0%	52.0%	
Maximum Green (s)	19.5	19.5		19.5	19.5		21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		19.5			19.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.39			0.39			0.43		0.43	0.43	

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.31			0.49			0.48		0.01	0.27	
Control Delay		7.1			9.8			11.7		8.4	7.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		7.1			9.8			11.7		8.4	7.3	
LOS		A			A			B		A	A	
Approach Delay		7.1			9.8			11.7			7.3	
Approach LOS		A			A			B			A	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.1

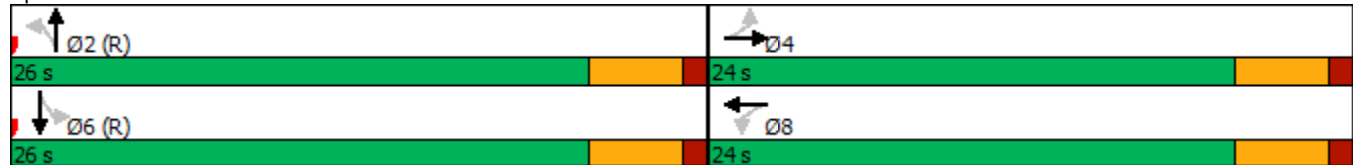
Intersection LOS: A

Intersection Capacity Utilization 50.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.933			0.929			0.968			0.962	
Flt Protected		0.993			0.994					0.950		
Satd. Flow (prot)	0	1726	0	0	1720	0	1863	1803	0	1770	3405	0
Flt Permitted		0.928			0.945					0.459		
Satd. Flow (perm)	0	1613	0	0	1635	0	1863	1803	0	855	3405	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			132			34			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		355			389			1167			1360	
Travel Time (s)		8.1			8.8			26.5			30.9	

Intersection Summary

Area Type: Other

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

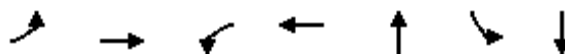
01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (vph)	21	59	79	31	91	137	0	220	59	4	227	77
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	80	107	42	124	186	0	299	80	5	308	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	352	0	0	379	0	5	413	0
Intersection Summary												

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔
Traffic Volume (vph)	21	59	31	91	220	4	227
Future Volume (vph)	21	59	31	91	220	4	227
Turn Type	Perm	NA	Perm	NA	NA	Perm	NA
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Detector Phase	4	4	8	8	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		19.5		19.5	21.5	21.5	21.5
Actuated g/C Ratio		0.39		0.39	0.43	0.43	0.43
v/c Ratio		0.31		0.49	0.48	0.01	0.27
Control Delay		7.1		9.8	11.7	8.4	7.3
Queue Delay		0.0		0.0	0.0	0.0	0.0
Total Delay		7.1		9.8	11.7	8.4	7.3
LOS		A		A	B	A	A
Approach Delay		7.1		9.8	11.7		7.3
Approach LOS		A		A	B		A

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.1

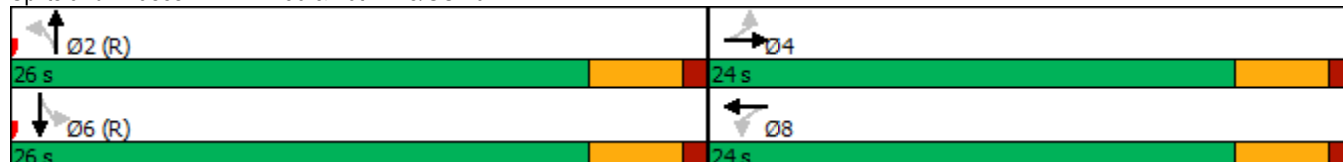
Intersection LOS: A

Intersection Capacity Utilization 50.6%

ICU Level of Service A

Analysis Period (min) 15

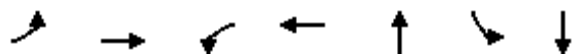
Splits and Phases: 1: IA 136 & 16th Ave/US 20



DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Protected Phases		4		8	2		6
Permitted Phases	4		8			6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	24.0	24.0	24.0	24.0	26.0	26.0	26.0
Total Split (%)	48.0%	48.0%	48.0%	48.0%	52.0%	52.0%	52.0%
Maximum Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0
90th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
70th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
50th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
30th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord
10th %ile Green (s)	19.5	19.5	19.5	19.5	21.5	21.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 2 (4%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	216	352	379	5	413
v/c Ratio	0.31	0.49	0.48	0.01	0.27
Control Delay	7.1	9.8	11.7	8.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	9.8	11.7	8.4	7.3
Queue Length 50th (ft)	20	43	67	1	27
Queue Length 95th (ft)	56	100	126	5	50
Internal Link Dist (ft)	275	309	1087		1280
Turn Bay Length (ft)				125	
Base Capacity (vph)	694	718	794	367	1524
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.49	0.48	0.01	0.27
Intersection Summary					

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	74	99	39	114	171	0	275	74	5	284	96
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	199	0	0	324	0	0	349	0	5	380	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1747	0	0	1739	0	1805	1840	0	1805	3480	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			0.0			0.0	22.7	0.0	0.3	13.1	0.0
Adj Reference Time (s)	0.0			0.0			9.5	27.2	0.0	9.5	17.6	0.0
Permitted Option												
Adj Saturation A (vph)	0	1273		0	1339		120	1840		120	1740	
Reference Time A (s)	0.0	18.7		0.0	29.0		0.0	22.7		5.0	13.1	
Adj Saturation B (vph)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA		NA	NA		NA	NA	
Reference Time (s)	18.7			29.0			22.7			13.1		
Adj Reference Time (s)	23.2			33.5			27.2			17.6		
Split Option												
Ref Time Combined (s)	0.0	13.7		0.0	22.3		0.0	22.7		0.3	13.1	
Ref Time Seperate (s)	1.7	5.1		2.6	7.9		0.0	17.9		0.3	9.8	
Reference Time (s)	13.7	13.7		22.3	22.3		22.7	22.7		13.1	13.1	
Adj Reference Time (s)	18.2	18.2		26.8	26.8		27.2	27.2		17.6	17.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		36.7									
Permitted Option (s)	33.5		27.2									
Split Option (s)	45.0		44.9									
Minimum (s)	33.5		27.2		60.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	50.6%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↕	↘
Traffic Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	299	80	5	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	282	318	123	262	341	144	611	164	423	1125	376
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	106	724	815	108	672	873	973	1422	380	1004	2615	875
Grp Volume(v), veh/h	216	0	0	352	0	0	0	0	379	5	207	206
Grp Sat Flow(s),veh/h/ln	1645	0	0	1653	0	0	973	0	1802	1004	1777	1713
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	0.2	3.8	3.9
Cycle Q Clear(g_c), s	4.4	0.0	0.0	7.9	0.0	0.0	0.0	0.0	7.6	7.8	3.8	3.9
Prop In Lane	0.13		0.50	0.12		0.53	1.00		0.21	1.00		0.51
Lane Grp Cap(c), veh/h	723	0	0	725	0	0	144	0	775	423	764	737
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.01	0.27	0.28
Avail Cap(c_a), veh/h	723	0	0	725	0	0	144	0	775	423	764	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	11.7	0.0	0.0	0.0	0.0	10.3	13.1	9.2	9.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.3	0.0	0.0	0.0	0.0	2.2	0.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	3.0	0.0	0.0	0.0	0.0	2.9	0.0	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	12.5	13.1	10.1	10.2
LnGrp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h		216			352			379			418	
Approach Delay, s/veh		11.7			14.0			12.5			10.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		24.0		26.0		24.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		19.5		21.5		19.5				
Max Q Clear Time (g_c+I1), s		9.6		6.4		9.8		9.9				
Green Ext Time (p_c), s		1.8		1.0		1.9		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				12.0								
HCM 6th LOS				B								

DESIGN YEAR 2D

1: IA 136 & 16th Ave/US 20

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Future Volume (veh/h)	21	59	79	31	91	137	0	220	59	4	227	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	80	107	42	124	186	0	299	80	5	308	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	123	282	318	123	262	341	144	611	164	423	1125	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	11.7	0.0	0.0	14.0	0.0	0.0	0.0	0.0	12.5	13.1	10.1	10.2
Ln Grp LOS	B	A	A	B	A	A	A	A	B	B	B	B
Approach Vol, veh/h	216			352			379			418		
Approach Delay, s/veh	11.7			14.0			12.5			10.2		
Approach LOS	B			B			B			B		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2			4			6			8		
Case No	6.0			8.0			6.0			8.0		
Phs Duration (G+Y+Rc), s	26.0			24.0			26.0			24.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green (Gmax), s	21.5			19.5			21.5			19.5		
Max Allow Headway (MAH), s	5.3			5.5			5.3			5.5		
Max Q Clear (g_c+I1), s	9.6			6.4			9.8			9.9		
Green Ext Time (g_e), s	1.8			1.0			1.9			1.5		
Prob of Phs Call (p_c)	1.00			1.00			1.00			1.00		
Prob of Max Out (p_x)	0.00			0.00			0.00			0.00		
Left-Turn Movement Data												
Assigned Mvmt	5			7			1			3		
Mvmt Sat Flow, veh/h	973			106			1004			108		
Through Movement Data												
Assigned Mvmt	2			4			6			8		
Mvmt Sat Flow, veh/h	1422			724			2615			672		
Right-Turn Movement Data												
Assigned Mvmt	12			14			16			18		
Mvmt Sat Flow, veh/h	380			815			875			873		
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L			L+T+R			L			L+T+R		

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1: IA 136 & 16th Ave/US 20

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	216	0	5	0	352
Grp Sat Flow (s), veh/h/ln	0	973	0	1645	0	1004	0	1653
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	4.4	0.0	7.8	0.0	7.9
Perm LT Sat Flow (s_l), veh/h/ln	0	973	0	1086	0	1004	0	1215
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	1858	0	0	0	1859
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	19.5	0.0	21.5	0.0	19.5
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	11.6	0.0	13.9	0.0	15.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	9.7	0.0	0.0	0.0	8.6
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	4.4	0.0	0.0	0.0	7.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	0.12
Lane Grp Cap (c), veh/h	0	144	0	723	0	423	0	725
V/C Ratio (X)	0.00	0.00	0.00	0.30	0.00	0.01	0.00	0.49
Avail Cap (c_a), veh/h	0	144	0	723	0	423	0	725
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	10.6	0.0	13.1	0.0	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.1	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	11.7	0.0	13.1	0.0	14.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.0	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	1.6	0.0	0.0	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.15	0.00	0.01	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	207	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1777	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	764	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	764	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

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1: IA 136 & 16th Ave/US 20

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	379	0	0	0	206	0	0
Grp Sat Flow (s), veh/h/ln	0	1802	0	0	0	1713	0	0
Q Serve Time (g_s), s	0.0	7.6	0.0	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	0.0	0.0	3.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.21	0.00	0.50	0.00	0.51	0.00	0.53
Lane Grp Cap (c), veh/h	0	775	0	0	0	737	0	0
V/C Ratio (X)	0.00	0.49	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	775	0	0	0	737	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.2	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.5	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.9	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	29.4	24.1	52.5	49.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	25.0	25.0	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.92	1.95	2.32	2.34
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	216	352	379	418
Effct. Green for Bike (s)	19.5	19.5	21.5	21.5
Cross Street Width (ft)	52.5	49.5	24.1	29.4
Through Lanes Number	1	1	1	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	780	780	860	860
Bicycle Delay (s/bike)	9.3	9.3	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.72	2.90	2.55	2.35
Bicycle LOS	C	C	C	B

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2: IA 136

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.925									0.900	
Flt Protected		0.978						0.989				
Satd. Flow (prot)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.978						0.989				
Satd. Flow (perm)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	73	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	0	0	0	293	0	0	432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.7%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.925									0.900	
Flt Protected		0.978						0.989				
Satd. Flow (prot)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Flt Permitted		0.978						0.989				
Satd. Flow (perm)	0	1685	0	0	1863	0	0	3500	0	0	3185	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		421			285			307			1167	
Travel Time (s)		9.6			6.5			7.0			26.5	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

2: IA 136

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Future Volume (vph)	54	0	68	0	0	0	46	169	0	0	107	211
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	73	0	92	0	0	0	63	230	0	0	145	287
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	0	0	0	293	0	0	432	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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2: IA 136

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	0	85	0	0	0	58	211	0	0	134	264
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	153	0	0	0	0	0	269	0	0	398	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Turning Factor (vph)	0.95	0.90	0.85	0.95	1.00	0.85	0.95	0.99	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1703	0	0	1900	0	0	3579	0	0	3258	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1419		0	1900		0	119		0	1629	
Reference Time A (s)	0.0	12.9		0.0	0.0		0.0	57.8		0.0	14.6	
Adj Saturation B (vph)	0	0		0	1900		NA	NA		NA	NA	
Reference Time B (s)	12.5	18.7		0.0	0.0		NA	NA		NA	NA	
Reference Time (s)		12.9			0.0			57.8			14.6	
Adj Reference Time (s)		16.9			8.0			61.8			18.6	
Split Option												
Ref Time Combined (s)	0.0	10.7		0.0	0.0		0.0	9.0		0.0	14.6	
Ref Time Seperate (s)	4.5	0.0		0.0	0.0		3.8	7.0		0.0	4.9	
Reference Time (s)	10.7	10.7		0.0	0.0		9.0	9.0		14.6	14.6	
Adj Reference Time (s)	14.7	14.7		0.0	0.0		13.0	13.0		18.6	18.6	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	16.9		61.8									
Split Option (s)	14.7		31.7									
Minimum (s)	14.7		31.7		46.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	38.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	54	0	68	0	0	0	46	169	0	0	107	211
Future Vol, veh/h	54	0	68	0	0	0	46	169	0	0	107	211
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	0	92	0	0	0	63	230	0	0	145	287

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	530	645	216	429	788	115	432	0	0	230	0	0
Stage 1	289	289	-	356	356	-	-	-	-	-	-	-
Stage 2	241	356	-	73	432	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	432	389	789	510	322	916	1124	-	-	1335	-	-
Stage 1	694	672	-	634	628	-	-	-	-	-	-	-
Stage 2	741	628	-	928	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	411	364	789	428	301	916	1124	-	-	1335	-	-
Mov Cap-2 Maneuver	411	364	-	428	301	-	-	-	-	-	-	-
Stage 1	650	672	-	593	588	-	-	-	-	-	-	-
Stage 2	694	588	-	819	581	-	-	-	-	-	-	-

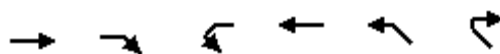
Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.1		0		2		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1124	-	-	561	-	1335	-
HCM Lane V/C Ratio	0.056	-	-	0.295	-	-	-
HCM Control Delay (s)	8.4	0.2	-	14.1	0	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.2	-	0	-

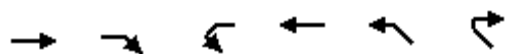
DESIGN YEAR 2D

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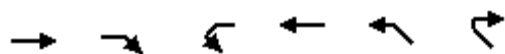
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	149	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	149	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	11.8%			ICU Level of Service A		
Analysis Period (min)	15					



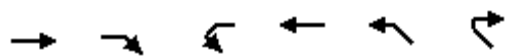
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	389			333	789	
Travel Time (s)	8.8			7.6	17.9	

Intersection Summary

Area Type: Other



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Traffic Volume (vph)	0	110	0	0	0	0
Future Volume (vph)	0	110	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	149	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	149	0	0	0	0
Intersection Summary						

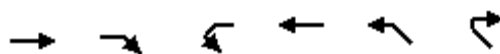


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2D

10: US 20

01/15/2025



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations		↗		↖		
Volume (vph)	0	138	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	138	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	1.00	0.85	0.95	1.00	0.95	0.85
Saturated Flow (vph)	0	1615	0	1900	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	Yes			Yes	No	
Reference Time (s)	0.0	10.2	0.0	0.0		0.0
Adj Reference Time (s)	0.0	14.2	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0		0	1900	0	
Reference Time A (s)	0.0		0.0	0.0	0.0	
Adj Saturation B (vph)	0		0	1900	NA	
Reference Time B (s)	0.0		0.0	0.0	NA	
Reference Time (s)	0.0			0.0		
Adj Reference Time (s)	8.0			8.0		
Split Option						
Ref Time Combined (s)	0.0		0.0	0.0	0.0	
Ref Time Seperate (s)	0.0		0.0	0.0	0.0	
Reference Time (s)	0.0		0.0	0.0	0.0	
Adj Reference Time (s)	0.0		0.0	0.0	0.0	
Summary	EB WB		NW	Combined		
Protected Option (s)	8.0		NA			
Permitted Option (s)	8.0		Err			
Split Option (s)	0.0		0.0			
Minimum (s)	0.0		0.0	0.0		
Right Turns	EBR					
Adj Reference Time (s)	14.2					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	14.2					
Intersection Summary						
Intersection Capacity Utilization		11.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D

16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897				0.850		0.972			0.997	
Flt Protected		0.991			0.989		0.950			0.950		
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted		0.950			0.940		0.479			0.541		
Satd. Flow (perm)	0	1587	0	0	1751	1583	892	1811	0	1008	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		118				36		31			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		942			1785			1488			913	
Travel Time (s)		21.4			40.6			33.8			20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	29	7	118	14	49	19	114	249	57	4	352	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	306	0	4	359	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effect Green (s)		18.0			18.0	18.0	18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40	0.40	0.40		0.40	0.40	

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.22			0.09	0.03	0.32	0.41		0.01	0.48	
Control Delay		4.3			9.0	2.6	12.5	10.8		8.2	12.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		4.3			9.0	2.6	12.5	10.8		8.2	12.7	
LOS		A			A	A	B	B		A	B	
Approach Delay		4.3			7.5			11.2			12.6	
Approach LOS		A			A			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE

 Ø2 (R)	 Ø4
22.5 s	22.5 s
 Ø6 (R)	 Ø8
22.5 s	22.5 s

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%				0%		0%	
Storage Length (ft)	0		0	0		150	150		0	100		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.897				0.850		0.972				0.997	
Flt Protected	0.991				0.989		0.950				0.950	
Satd. Flow (prot)	0	1656	0	0	1842	1583	1770	1811	0	1770	1857	0
Flt Permitted	0.950				0.940		0.479				0.541	
Satd. Flow (perm)	0	1587	0	0	1751	1583	892	1811	0	1008	1857	0
Right Turn on Red			Yes				Yes		Yes			
Satd. Flow (RTOR)	118				36		31				3	
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	942				1785		1488				913	
Travel Time (s)	21.4				40.6		33.8				20.8	

Intersection Summary

Area Type: Other

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (vph)	21	5	87	10	36	14	84	183	42	3	259	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	7	118	14	49	19	114	249	57	4	352	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	63	19	114	306	0	4	359	0
Intersection Summary												

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	21	5	10	36	14	84	183	3	259
Future Volume (vph)	21	5	10	36	14	84	183	3	259
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0	18.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio		0.40		0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio		0.22		0.09	0.03	0.32	0.41	0.01	0.48
Control Delay		4.3		9.0	2.6	12.5	10.8	8.2	12.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		4.3		9.0	2.6	12.5	10.8	8.2	12.7
LOS		A		A	A	B	B	A	B
Approach Delay		4.3		7.5			11.2		12.6
Approach LOS		A		A			B		B

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.4

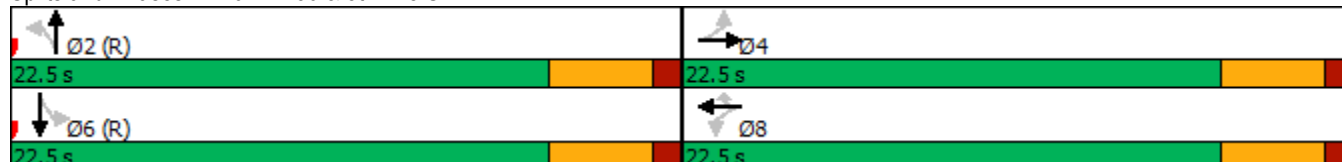
Intersection LOS: B

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 16: IA 136 & 8th Ave SE



DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases		4		8			2		6
Permitted Phases	4		8		8	2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	63	19	114	306	4	359
v/c Ratio	0.22	0.09	0.03	0.32	0.41	0.01	0.48
Control Delay	4.3	9.0	2.6	12.5	10.8	8.2	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.0	2.6	12.5	10.8	8.2	12.7
Queue Length 50th (ft)	5	9	0	19	47	1	64
Queue Length 95th (ft)	31	m26	m6	49	95	5	120
Internal Link Dist (ft)	862	1705			1408		833
Turn Bay Length (ft)			150	150		100	
Base Capacity (vph)	705	700	654	356	743	403	744
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.09	0.03	0.32	0.41	0.01	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
16: IA 136 & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	6	109	13	45	18	105	229	53	4	324	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	141	0	0	58	18	105	281	0	4	330	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.88	0.85	0.95	0.99	0.85	0.95	0.97	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1665	0	0	1879	1615	1805	1847	0	1805	1895	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			Yes			Yes		
Reference Time (s)	0.0			1.3			7.0			18.3		
Adj Reference Time (s)	0.0			9.5			11.5			22.8		
Permitted Option												
Adj Saturation A (vph)	0	436	0	1327	120	1847	120	1895	0	4	330	0
Reference Time A (s)	0.0	38.8	0.0	5.2	104.7	18.3	3.7	20.9	0.0	0.2	25.4	0.0
Adj Saturation B (vph)	0	0	0	0	NA	NA	NA	NA	0	0	0	0
Reference Time B (s)	9.7	18.2	8.8	11.7	NA	NA	NA	NA	9.7	18.2	25.4	8.8
Reference Time (s)	18.2			5.2			104.7			20.9		
Adj Reference Time (s)	22.7			9.7			109.2			25.4		
Split Option												
Ref Time Combined (s)	0.0	10.2	0.0	3.7	7.0	18.3	0.2	20.9	0.0	0.2	25.4	0.0
Ref Time Seperate (s)	1.7	0.5	0.8	2.8	7.0	14.9	0.2	20.5	1.7	0.5	25.4	0.8
Reference Time (s)	10.2	10.2	3.7	3.7	18.3	18.3	20.9	20.9	10.2	10.2	25.4	3.7
Adj Reference Time (s)	14.7	14.7	9.5	9.5	22.8	22.8	25.4	25.4	14.7	14.7	25.4	9.5
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		36.9									
Permitted Option (s)	22.7		109.2									
Split Option (s)	24.2		48.2									
Minimum (s)	22.7		36.9		59.6							
Right Turns	WBR											
Adj Reference Time (s)	9.5											
Cross Thru Ref Time (s)	22.8											
Oncoming Left Ref Time (s)	14.7											
Combined (s)	47.0											
Intersection Summary												
Intersection Capacity Utilization			49.6%		ICU Level of Service			A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	249	57	4	352	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	79	485	196	603	634	423	589	135	458	731	15
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	172	198	1213	245	1509	1585	1022	1473	337	1073	1827	36
Grp Volume(v), veh/h	154	0	0	63	0	19	114	0	306	4	0	359
Grp Sat Flow(s),veh/h/ln	1583	0	0	1753	0	1585	1022	0	1810	1073	0	1864
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.3	4.2	0.0	5.5	0.1	0.0	6.4
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.9	0.0	0.3	10.6	0.0	5.5	5.6	0.0	6.4
Prop In Lane	0.19		0.77	0.22		1.00	1.00		0.19	1.00		0.02
Lane Grp Cap(c), veh/h	728	0	0	799	0	634	423	0	724	458	0	746
V/C Ratio(X)	0.21	0.00	0.00	0.08	0.00	0.03	0.27	0.00	0.42	0.01	0.00	0.48
Avail Cap(c_a), veh/h	728	0	0	799	0	634	423	0	724	458	0	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	8.4	0.0	8.2	14.0	0.0	9.7	11.8	0.0	10.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.2	0.0	0.1	1.6	0.0	1.8	0.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.3	0.0	0.1	1.0	0.0	2.1	0.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.6	0.0	11.6	11.8	0.0	12.3
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		154			82			420			363	
Approach Delay, s/veh		9.6			8.5			12.6			12.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		12.6		4.8		8.4		2.9				
Green Ext Time (p_c), s		1.1		0.7		1.5		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				11.7								
HCM 6th LOS				B								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Future Volume (veh/h)	21	5	87	10	36	14	84	183	42	3	259	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	7	118	14	49	19	114	249	57	4	352	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	164	79	485	196	603	634	423	589	135	458	731	15
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.6	0.0	0.0	8.6	0.0	8.3	15.6	0.0	11.6	11.8	0.0	12.3
Ln Grp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		154			82			420			363	
Approach Delay, s/veh		9.6			8.5			12.6			12.2	
Approach LOS		A			A			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			6.0		8.0		6.0		7.0			
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		18.0		18.0		18.0			
Max Allow Headway (MAH), s			5.2		5.5		5.2		5.0			
Max Q Clear (g_c+I1), s			12.6		4.8		8.4		2.9			
Green Ext Time (g_e), s			1.1		0.7		1.5		0.2			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			1022		172		1073		245			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1473		198		1827		1509			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			337		1213		36		1585			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L		L+T+R		L		L+T			

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	114	0	154	0	4	0	63
Grp Sat Flow (s), veh/h/ln	0	1022	0	1583	0	1073	0	1753
Q Serve Time (g_s), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.6	0.0	2.8	0.0	5.6	0.0	0.9
Perm LT Sat Flow (s_l), veh/h/ln	0	1022	0	1354	0	1073	0	1286
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	1850
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	11.6	0.0	17.1	0.0	12.5	0.0	15.2
Perm LT Q Serve Time (g_ps), s	0.0	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	7.3	0.0	0.0	0.0	6.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.9
Prop LT Inside Lane (P_L)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	0.22
Lane Grp Cap (c), veh/h	0	423	0	728	0	458	0	799
V/C Ratio (X)	0.00	0.27	0.00	0.21	0.00	0.01	0.00	0.08
Avail Cap (c_a), veh/h	0	423	0	728	0	458	0	799
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	8.9	0.0	11.8	0.0	8.4
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.7	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.6	0.0	9.6	0.0	11.8	0.0	8.6
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	0.9	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.03	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment	T+R				T+R			
Lanes in Grp	0	1	0	0	0	1	0	1
Grp Vol (v), veh/h	0	306	0	0	0	359	0	19
Grp Sat Flow (s), veh/h/ln	0	1810	0	0	0	1864	0	1585
Q Serve Time (g_s), s	0.0	5.5	0.0	0.0	0.0	6.4	0.0	0.3
Cycle Q Clear Time (g_c), s	0.0	5.5	0.0	0.0	0.0	6.4	0.0	0.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	0.77	0.00	0.02	0.00	1.00
Lane Grp Cap (c), veh/h	0	724	0	0	0	746	0	634
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.48	0.00	0.03
Avail Cap (c_a), veh/h	0	724	0	0	0	746	0	634
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.7	0.0	0.0	0.0	10.0	0.0	8.2
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	2.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	12.3	0.0	8.3
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.0	0.0	2.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.0	0.0	2.5	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.08	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	36.3	36.1	36.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	3	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.85	1.97	2.22	2.14
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	82	420	363
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	36.1	36.6	36.3	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.37	2.25	2.81	2.53
Bicycle LOS	B	B	C	C

DESIGN YEAR 2D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.977			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1747	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1747	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	76	50	20	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	24	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Sign Control	Free		Stop			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.1%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0		0	0		0
Storage Lanes	1		1	0		1
Taper Length (ft)			25			25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865		0.977			
Flt Protected			0.960			0.950
Satd. Flow (prot)	1611	0	1747	0	0	1770
Flt Permitted			0.960			0.950
Satd. Flow (perm)	1611	0	1747	0	0	1770
Link Speed (mph)	30		30			30
Link Distance (ft)	661		984			892
Travel Time (s)	15.0		22.4			20.3

Intersection Summary

Area Type: Other

DESIGN YEAR 2D
26: 9th St SE & 2nd Ave SE

01/15/2025



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Traffic Volume (vph)	56	37	15	3	3	71
Future Volume (vph)	56	37	15	3	3	71
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	76	50	20	4	4	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	126	0	24	0	0	100
Intersection Summary						



Lane Group	EBR	EBR2	NBL	NBR	NWL2	NWL
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9	15	15
Intersection Summary						

DESIGN YEAR 2D
26: 9th St SE & 2nd Ave SE

01/15/2025



Movement	EBR	EBR2	NBL	NBR	NWL2	NWL
Lane Configurations						
Volume (vph)	70	46	19	4	4	89
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No	No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	116	0	23	0	0	93
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	0.93	0.85	0.95	0.95
Saturated Flow (vph)	1615	0	1775	0	0	1805
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)	8.6	0.0		0.0		
Adj Reference Time (s)	12.6	0.0		0.0		
Permitted Option						
Adj Saturation A (vph)			118		0	120
Reference Time A (s)			22.8		0.0	92.2
Adj Saturation B (vph)			NA		NA	NA
Reference Time B (s)			NA		NA	NA
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)			1.5		0.0	6.1
Ref Time Seperate (s)			1.3		0.2	5.9
Reference Time (s)			1.5		6.1	6.1
Adj Reference Time (s)			8.0		10.1	10.1
Summary	EB		NB		NW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	0.0		8.0		10.1	
Minimum (s)	0.0		8.0		10.1	18.1
Right Turns	EBR					
Adj Reference Time (s)	12.6					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	12.6					
Intersection Summary						
Intersection Capacity Utilization			15.1%		ICU Level of Service	A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	39	174	18	44	224	5
Future Volume (vph)	39	174	18	44	224	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.890		0.904		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1660	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	236	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	84	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Sign Control	Free		Stop		Free	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 46.6% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2D

29:

01/15/2025

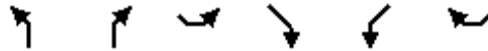
						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%		0%	
Storage Length (ft)	0	0	0	0	0	0
Storage Lanes	1	0	1	0	1	0
Taper Length (ft)	25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890		0.904		0.997	
Flt Protected	0.991		0.986		0.953	
Satd. Flow (prot)	1643	0	1660	0	1770	0
Flt Permitted	0.991		0.986		0.953	
Satd. Flow (perm)	1643	0	1660	0	1770	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	913		121		598	
Travel Time (s)	20.8		2.8		13.6	
Intersection Summary						
Area Type:	Other					

DESIGN YEAR 2D

29:

01/15/2025

						
Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Traffic Volume (vph)	39	174	18	44	224	5
Future Volume (vph)	39	174	18	44	224	5
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%		0%	
Adj. Flow (vph)	53	236	24	60	304	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	289	0	84	0	311	0
Intersection Summary						



Lane Group	NBL	NBR	SEL	SER	SWL	SWR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9
Intersection Summary						

DESIGN YEAR 2D

29:

01/15/2025

						
Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Volume (vph)	49	218	23	55	280	6
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	266	0	78	0	286	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.87	0.85	0.88	0.85	0.95	0.85
Saturated Flow (vph)	1652	0	1673	0	1801	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00		0.00	
Protected Option Allowed	No		No		No	
Reference Time (s)		0.0		0.0		0.0
Adj Reference Time (s)		0.0		0.0		0.0
Permitted Option						
Adj Saturation A (vph)	110		112		120	
Reference Time A (s)	290.1		83.4		286.1	
Adj Saturation B (vph)	NA		NA		NA	
Reference Time B (s)	NA		NA		NA	
Reference Time (s)						
Adj Reference Time (s)						
Split Option						
Ref Time Combined (s)	19.3		5.6		19.1	
Ref Time Seperate (s)	3.5		1.6		18.7	
Reference Time (s)	19.3		5.6		19.1	
Adj Reference Time (s)	23.3		9.6		23.1	
Summary	NB		SE		SW	Combined
Protected Option (s)	NA		NA		NA	
Permitted Option (s)	Err		Err		Err	
Split Option (s)	23.3		9.6		23.1	
Minimum (s)	23.3		9.6		23.1	56.0
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		46.6%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D

30: Beltline Rd

01/15/2025

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.966		0.995			0.999	
Flt Protected		0.969			0.964		0.954			0.953	
Satd. Flow (prot)	0	1715	0	0	1735	0	1768	0	0	1773	0
Flt Permitted		0.969			0.964		0.954			0.953	
Satd. Flow (perm)	0	1715	0	0	1735	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	53	0	31	3	0	1	394	16	8	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	84	0	0	4	0	410	0	0	364	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Sign Control		Stop			Stop		Free			Free	
Intersection Summary											
Area Type:	Other										
Control Type:	Unsignalized										
Intersection Capacity Utilization	54.7%					ICU Level of Service A					
Analysis Period (min)	15										

DESIGN YEAR 2D

30: Beltline Rd

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%		0%			0%	
Storage Length (ft)	0		0	0		0	0	0		0	0
Storage Lanes	0		0	0		0	1	0		1	0
Taper Length (ft)	25			25			25			25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor											
Frt		0.950			0.966		0.995			0.999	
Flt Protected		0.969			0.964		0.954			0.953	
Satd. Flow (prot)	0	1715	0	0	1735	0	1768	0	0	1773	0
Flt Permitted		0.969			0.964		0.954			0.953	
Satd. Flow (perm)	0	1715	0	0	1735	0	1768	0	0	1773	0
Link Speed (mph)		35			35		30			30	
Link Distance (ft)		3650			1147		200			502	
Travel Time (s)		71.1			22.3		4.5			11.4	

Intersection Summary

Area Type: Other

											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Traffic Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Future Volume (vph)	39	0	23	2	0	1	290	12	6	260	2
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%			0%		0%			0%	
Adj. Flow (vph)	53	0	31	3	0	1	394	16	8	353	3
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	84	0	0	4	0	410	0	0	364	0
Intersection Summary											



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12			12	
Link Offset(ft)		0			0		0			0	
Crosswalk Width(ft)		16			16		16			16	
Two way Left Turn Lane											
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15	9	15	15	9
Intersection Summary											

DESIGN YEAR 2D

30: Beltline Rd

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL2	NEL	NER
Lane Configurations		↔			↔		↔			↔	
Volume (vph)	49	0	29	3	0	1	363	15	8	325	3
Pedestrians											
Ped Button											
Pedestrian Timing (s)											
Free Right			No			No		No			No
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	78	0	0	4	0	378	0	0	335	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.92	0.85	0.95	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1738	0	0	1745	0	1798	0	0	1804	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00			0.00		0.00			0.00	
Protected Option Allowed		No			No		No			No	
Reference Time (s)			0.0			0.0		0.0			0.0
Adj Reference Time (s)			0.0			0.0		0.0			0.0
Permitted Option											
Adj Saturation A (vph)	0	1521		0	1442		120		0	120	
Reference Time A (s)	0.0	6.1		0.0	0.3		377.9		0.0	334.3	
Adj Saturation B (vph)	0	0		0	0		NA		NA	NA	
Reference Time B (s)	11.2	13.4		8.2	8.3		NA		NA	NA	
Reference Time (s)		6.1			0.3						
Adj Reference Time (s)		10.1			8.0						
Split Option											
Ref Time Combined (s)	0.0	5.4		0.0	0.3		25.2		0.0	22.3	
Ref Time Seperate (s)	3.2	0.0		0.2	0.0		24.2		0.5	21.6	
Reference Time (s)	5.4	5.4		0.3	0.3		25.2		22.3	22.3	
Adj Reference Time (s)	9.4	9.4		8.0	8.0		29.2		26.3	26.3	
Summary	EB WB		SB		NE		Combined				
Protected Option (s)	NA		NA		NA						
Permitted Option (s)	10.1		Err		Err						
Split Option (s)	17.4		29.2		26.3						
Minimum (s)	10.1		29.2		26.3		65.6				
Right Turns											
Adj Reference Time (s)											
Cross Thru Ref Time (s)											
Oncoming Left Ref Time (s)											
Combined (s)											
Intersection Summary											
Intersection Capacity Utilization		54.7%			ICU Level of Service				A		
Reference Times and Phasing Options do not represent an optimized timing plan.											

DESIGN YEAR 2D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.920			0.979			0.988	
Flt Protected		0.994			0.997						0.987	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1816	0
Flt Permitted		0.994			0.997						0.987	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1816	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	73	5	15	75	132	0	226	41	110	287	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	267	0	0	434	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	58.6%				ICU Level of Service B							
Analysis Period (min)	15											

DESIGN YEAR 2D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.920			0.979			0.988	
Flt Protected		0.994			0.997						0.987	
Satd. Flow (prot)	0	1837	0	0	1709	0	0	1824	0	0	1816	0
Flt Permitted		0.994			0.997						0.987	
Satd. Flow (perm)	0	1837	0	0	1709	0	0	1824	0	0	1816	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		892			1754			165			502	
Travel Time (s)		20.3			39.9			3.8			11.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

31: 2nd Ave SE

01/15/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Traffic Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Future Volume (vph)	8	54	4	11	55	97	0	166	30	81	211	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	73	5	15	75	132	0	226	41	110	287	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	89	0	0	222	0	0	267	0	0	434	0
Intersection Summary												

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

31: 2nd Ave SE

01/15/2025

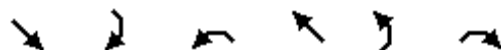
												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	10	68	5	14	69	121	0	208	38	101	264	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	83	0	0	204	0	0	245	0	0	399	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.91	0.85	0.95	0.98	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1871	0	0	1725	0	0	1856	0	0	1852	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1197		0	1474		0	1856		0	378	
Reference Time A (s)	0.0	8.3		0.0	16.6		0.0	15.8		0.0	126.6	
Adj Saturation B (vph)	NA	NA		0	0		NA	NA		NA	NA	
Reference Time B (s)	NA	NA		8.9	22.2		NA	NA		NA	NA	
Reference Time (s)	8.3			16.6			15.8			126.6		
Adj Reference Time (s)	12.3			20.6			19.8			130.6		
Split Option												
Ref Time Combined (s)	0.0	5.3		0.0	14.2		0.0	15.8		0.0	25.8	
Ref Time Seperate (s)	0.7	4.3		0.9	4.8		0.0	13.4		6.7	16.9	
Reference Time (s)	5.3	5.3		14.2	14.2		15.8	15.8		25.8	25.8	
Adj Reference Time (s)	9.3	9.3		18.2	18.2		19.8	19.8		29.8	29.8	
Summary	NW SE		NE SW		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.6		130.6									
Split Option (s)	27.5		49.7									
Minimum (s)	20.6		49.7		70.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	58.6%			ICU Level of Service			B					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	7.5											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	54	4	11	55	97	0	166	30	81	211	27
Future Vol, veh/h	8	54	4	11	55	97	0	166	30	81	211	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	73	5	15	75	132	0	226	41	110	287	37
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	876	793	306	812	791	247	324	0	0	267	0	0
Stage 1	526	526	-	247	247	-	-	-	-	-	-	-
Stage 2	350	267	-	565	544	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	269	321	734	298	322	792	1236	-	-	1297	-	-
Stage 1	535	529	-	757	702	-	-	-	-	-	-	-
Stage 2	666	688	-	510	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	166	288	734	220	289	792	1236	-	-	1297	-	-
Mov Cap-2 Maneuver	166	288	-	220	289	-	-	-	-	-	-	-
Stage 1	535	474	-	757	702	-	-	-	-	-	-	-
Stage 2	496	688	-	383	465	-	-	-	-	-	-	-
Approach	SE		NW		NE		SW					
HCM Control Delay, s	24.4		20.6		0		2					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR					
Capacity (veh/h)	1236	-	-	449	274	1297	-	-				
HCM Lane V/C Ratio	-	-	-	0.493	0.327	0.085	-	-				
HCM Control Delay (s)	0	-	-	20.6	24.4	8	0	-				
HCM Lane LOS	A	-	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	2.7	1.4	0.3	-	-				

DESIGN YEAR 2D

38: 2nd Ave SE

01/15/2025



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	31.8%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.976				0.936	
Flt Protected				0.993	0.974	
Satd. Flow (prot)	1818	0	0	1850	1698	0
Flt Permitted				0.993	0.974	
Satd. Flow (perm)	1818	0	0	1850	1698	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1754			170	267	
Travel Time (s)	39.9			3.9	6.1	

Intersection Summary

Area Type: Other



Lane Group	SET	SER	NWL	NWT	NEL	NER
Traffic Volume (vph)	112	24	20	120	13	12
Future Volume (vph)	112	24	20	120	13	12
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	152	33	27	163	18	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	190	34	0
Intersection Summary						

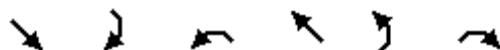


Lane Group	SET	SER	NWL	NWT	NEL	NER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Intersection Summary						

DESIGN YEAR 2D

38: 2nd Ave SE

01/15/2025



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	140	30	25	150	16	15
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	170	0	0	175	31	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.97	0.85	0.95	0.99	0.90	0.85
Saturated Flow (vph)	1850	0	0	1886	1717	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	1850		0	601	114	
Reference Time A (s)	11.0		0.0	34.9	32.8	
Adj Saturation B (vph)	NA		NA	NA	NA	
Reference Time B (s)	NA		NA	NA	NA	
Reference Time (s)	11.0			34.9		
Adj Reference Time (s)	15.0			38.9		
Split Option						
Ref Time Combined (s)	11.0		0.0	11.1	2.2	
Ref Time Seperate (s)	9.1		1.7	9.5	1.1	
Reference Time (s)	11.0		11.1	11.1	2.2	
Adj Reference Time (s)	15.0		15.1	15.1	8.0	
Summary	NW SE		NE	Combined		
Protected Option (s)	NA		NA			
Permitted Option (s)	38.9		Err			
Split Option (s)	30.2		8.0			
Minimum (s)	30.2		8.0	38.2		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		31.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D

38: 2nd Ave SE

01/15/2025

Intersection

Int Delay, s/veh 1.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	112	24	20	120	13	12
Future Vol, veh/h	112	24	20	120	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	33	27	163	18	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	185
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1390
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1390
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	SE	NW	NE
HCM Control Delay, s	0	1.1	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	709	1390	-	-	-
HCM Lane V/C Ratio	0.048	0.02	-	-	-
HCM Control Delay (s)	10.3	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	-

DESIGN YEAR 2D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.936	0.865						
Flt Protected					0.996					0.950		
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996					0.950		
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)	30				30				30			
Link Distance (ft)	480				697				223			
Travel Time (s)	10.9				15.8				5.1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop				Free			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.7%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.936			0.865				
Flt Protected					0.996						0.950	
Satd. Flow (prot)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Flt Permitted					0.996						0.950	
Satd. Flow (perm)	0	1863	0	0	1737	0	0	1611	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		480			697			223			1407	
Travel Time (s)		10.9			15.8			5.1			32.0	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

49: 6th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Future Volume (vph)	0	45	0	10	57	60	0	0	8	68	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	61	0	14	77	82	0	0	11	92	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	173	0	0	11	0	0	92	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

49: 6th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	56	0	13	71	75	0	0	10	85	0	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	56	0	0	159	0	0	10	0	0	85	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.85	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1900	0	0	1758	0	0	1615	0	0	1805	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	818		0	1615		0	120	
Reference Time A (s)	0.0	3.6		0.0	23.3		0.0	0.7		0.0	84.8	
Adj Saturation B (vph)	NA	NA		0	0		0	1615		0	0	
Reference Time B (s)	NA	NA		8.8	18.8		0.0	0.7		13.7	13.7	
Reference Time (s)	3.6			18.8			0.7			13.7		
Adj Reference Time (s)	8.0			22.8			8.0			17.7		
Split Option												
Ref Time Combined (s)	0.0	3.6		0.0	10.8		0.0	0.7		0.0	5.7	
Ref Time Seperate (s)	0.0	3.6		0.8	4.9		0.0	0.0		5.7	0.0	
Reference Time (s)	3.6	3.6		10.8	10.8		0.7	0.7		5.7	5.7	
Adj Reference Time (s)	8.0	8.0		14.8	14.8		8.0	8.0		9.7	9.7	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	22.8		17.7									
Split Option (s)	22.8		17.7									
Minimum (s)	22.8		17.7		40.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	33.7%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D

49: 6th St SE

01/15/2025

Intersection													
Int Delay, s/veh	2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕			↕			↕		
Traffic Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Future Vol, veh/h	0	45	0	10	57	60	0	0	8	68	0	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	
Mvmt Flow	0	61	0	14	77	82	0	0	11	92	0	0	
Major/Minor	Minor2		Minor1			Major1			Major2				
Conflicting Flow All	269	195	0	221	190	6	0	0	0	11	0	0	
Stage 1	184	184	-	6	6	-	-	-	-	-	-	-	
Stage 2	85	11	-	215	184	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-	
Pot Cap-1 Maneuver	684	700	-	735	705	1077	-	-	-	1608	-	-	
Stage 1	818	747	-	1016	891	-	-	-	-	-	-	-	
Stage 2	923	886	-	787	747	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	551	660	-	-	665	1077	-	-	-	1608	-	-	
Mov Cap-2 Maneuver	551	660	-	-	665	-	-	-	-	-	-	-	
Stage 1	818	704	-	1016	891	-	-	-	-	-	-	-	
Stage 2	779	886	-	678	704	-	-	-	-	-	-	-	
Approach	EB		WB			NB			SB				
HCM Control Delay, s							0			7.4			
HCM LOS	-		-										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR						
Capacity (veh/h)	-	-	-	-	-	1608	-	-					
HCM Lane V/C Ratio	-	-	-	-	-	0.057	-	-					
HCM Control Delay (s)	0	-	-	-	-	7.4	0	-					
HCM Lane LOS	A	-	-	-	-	A	A	-					
HCM 95th %tile Q(veh)	-	-	-	-	-	0.2	-	-					

DESIGN YEAR 2D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997						0.990				
Flt Protected		0.999			0.999			0.993				
Satd. Flow (prot)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Flt Permitted		0.999			0.999			0.993				
Satd. Flow (perm)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1614			942			1407			1471	
Travel Time (s)		36.7			21.4			32.0			33.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	132	3	5	245	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	250	0	0	52	0	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997						0.990				
Flt Protected		0.999			0.999			0.993				
Satd. Flow (prot)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Flt Permitted		0.999			0.999			0.993				
Satd. Flow (perm)	0	1855	0	0	1861	0	0	1831	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1614			942			1407			1471	
Travel Time (s)		36.7			21.4			32.0			33.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Future Volume (vph)	2	97	2	4	180	0	5	30	3	0	51	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	132	3	5	245	0	7	41	4	0	69	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	250	0	0	52	0	0	69	0
Intersection Summary												

DESIGN YEAR 2D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

52: 6th St SE & 13th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	121	3	5	225	0	6	38	4	0	64	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	126	0	0	230	0	0	48	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.98	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1892	0	0	1898	0	0	1865	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1627		0	1599		0	630		0	1900	
Reference Time A (s)	0.0	9.3		0.0	17.3		0.0	9.1		0.0	4.0	
Adj Saturation B (vph)	NA	NA		NA	NA		0	0		0	1900	
Reference Time B (s)	NA	NA		NA	NA		8.4	11.1		0.0	4.0	
Reference Time (s)	9.3			17.3			9.1			4.0		
Adj Reference Time (s)	13.3			21.3			13.1			8.0		
Split Option												
Ref Time Combined (s)	0.0	8.0		0.0	14.5		0.0	3.1		0.0	4.0	
Ref Time Seperate (s)	0.2	7.7		0.3	14.2		0.4	2.4		0.0	4.0	
Reference Time (s)	8.0	8.0		14.5	14.5		3.1	3.1		4.0	4.0	
Adj Reference Time (s)	12.0	12.0		18.5	18.5		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.3		13.1									
Split Option (s)	30.5		16.0									
Minimum (s)	21.3		13.1		34.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	28.6%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
52: 6th St SE & 13th Ave SE

01/15/2025

Intersection												
Intersection Delay, s/veh	8.9											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Future Vol, veh/h	2	97	2	4	180	0	5	30	3	0	51	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	132	3	5	245	0	7	41	4	0	69	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9.3	8.3	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	13%	2%	2%	0%
Vol Thru, %	79%	96%	98%	100%
Vol Right, %	8%	2%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	101	184	51
LT Vol	5	2	4	0
Through Vol	30	97	180	51
RT Vol	3	2	0	0
Lane Flow Rate	52	137	250	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.171	0.305	0.094
Departure Headway (Hd)	4.879	4.494	4.388	4.875
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	734	799	820	735
Service Time	2.912	2.521	2.411	2.908
HCM Lane V/C Ratio	0.071	0.171	0.305	0.094
HCM Control Delay	8.3	8.5	9.3	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.6	1.3	0.3

DESIGN YEAR 2D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	97	3	114	277	279	70
Future Volume (vph)	97	3	114	277	279	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.973	
Flt Protected	0.954				0.986	
Satd. Flow (prot)	1770	0	0	1837	1812	0
Flt Permitted	0.954				0.986	
Satd. Flow (perm)	1770	0	0	1837	1812	0
Link Speed (mph)	30				30	30
Link Distance (ft)	942				1360	1488
Travel Time (s)	21.4				30.9	33.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	132	4	155	376	379	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	0	531	474	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12				14	14
Link Offset(ft)	0				0	0
Crosswalk Width(ft)	16				16	16
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop				Free	Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	66.7%			ICU Level of Service C		
Analysis Period (min)	15					

DESIGN YEAR 2D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.996				0.973	
Flt Protected	0.954			0.986		
Satd. Flow (prot)	1770	0	0	1837	1812	0
Flt Permitted	0.954			0.986		
Satd. Flow (perm)	1770	0	0	1837	1812	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	942			1360	1488	
Travel Time (s)	21.4			30.9	33.8	
Intersection Summary						

Area Type: Other

DESIGN YEAR 2D
53: IA 136 & 13th Ave SE

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	97	3	114	277	279	70
Future Volume (vph)	97	3	114	277	279	70
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	132	4	155	376	379	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	0	531	474	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			14	14	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane					Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2D
53: IA 136 & 13th Ave SE

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	121	4	143	346	349	88
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No				No	
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	125	0	0	489	436	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.85	0.95	0.99	0.97	0.85
Saturated Flow (vph)	1800	0	0	1872	1843	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)	0.0				0.0	
Adj Reference Time (s)	0.0				0.0	
Permitted Option						
Adj Saturation A (vph)	120	0		340	1843	
Reference Time A (s)	125.0	0.0		172.3	28.4	
Adj Saturation B (vph)	NA	NA		NA	NA	
Reference Time B (s)	NA	NA		NA	NA	
Reference Time (s)				172.3	28.4	
Adj Reference Time (s)				176.3	32.4	
Split Option						
Ref Time Combined (s)	8.3	0.0		31.3	28.4	
Ref Time Seperate (s)	8.1	9.5		21.9	22.7	
Reference Time (s)	8.3	31.3		31.3	28.4	
Adj Reference Time (s)	12.3	35.3		35.3	32.4	
Summary	EB	NB SB		Combined		
Protected Option (s)	NA	NA				
Permitted Option (s)	Err	176.3				
Split Option (s)	12.3	67.7				
Minimum (s)	12.3	67.7		80.1		
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	66.7%		ICU Level of Service		C	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 4

Movement	EBL	EBR	NBL	NBT	SBT	SBR

Lane Configurations						

Traffic Vol, veh/h	97	3	114	277	279	70

Future Vol, veh/h	97	3	114	277	279	70

Conflicting Peds, #/hr	0	0	0	0	0	0

Sign Control	Stop	Stop	Free	Free	Free	Free

RT Channelized	-	None	-	None	-	None

Storage Length	0	-	-	-	-	-

Veh in Median Storage, #	0	-	-	0	0	-

Grade, %	0	-	-	0	0	-

Peak Hour Factor	92	92	92	92	92	92

Heavy Vehicles, %	2	2	2	2	2	2

Mvmt Flow	132	4	155	376	379	95

Major/Minor	Minor2	Major1	Major2

Conflicting Flow All	1113	427	474

Stage 1	427	-	-

Stage 2	686	-	-

Critical Hdwy	6.42	6.22	4.12

Critical Hdwy Stg 1	5.42	-	-

Critical Hdwy Stg 2	5.42	-	-

Follow-up Hdwy	3.518	3.318	2.218

Pot Cap-1 Maneuver	231	628	1088

Stage 1	658	-	-

Stage 2	500	-	-

Platoon blocked, %			

Mov Cap-1 Maneuver	189	628	1088

Mov Cap-2 Maneuver	323	-	-

Stage 1	540	-	-

Stage 2	500	-	-

Approach	EB	NB	SB

HCM Control Delay, s	23.5	2.6	0

HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR

Capacity (veh/h)	1088	-	328	-	-

HCM Lane V/C Ratio	0.142	-	0.414	-	-

HCM Control Delay (s)	8.9	0	23.5	-	-

HCM Lane LOS	A	A	C	-	-

HCM 95th %tile Q(veh)	0.5	-	2	-	-

DESIGN YEAR 2D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.979			0.988			0.920			0.966	
Flt Protected		0.995			0.983			0.981			0.969	
Satd. Flow (prot)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Flt Permitted		0.995			0.983			0.981			0.969	
Satd. Flow (perm)	0	1815	0	0	1809	0	0	1681	0	0	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		648			942			1471			191	
Travel Time (s)		14.7			21.4			33.4			4.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Future Volume (vph)	8	64	13	35	55	9	20	1	30	13	2	5
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	87	18	48	75	12	27	1	41	18	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	135	0	0	69	0	0	28	0
Intersection Summary												

DESIGN YEAR 2D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

55: 6th St SE & 8th Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	80	16	44	69	11	25	1	38	16	3	6
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	106	0	0	124	0	0	64	0	0	25	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.97	0.85	0.95	0.89	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1848	0	0	1841	0	0	1698	0	0	1769	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1770		0	725		0	1633		0	1073	
Reference Time A (s)	0.0	7.2		0.0	20.5		0.0	4.7		0.0	2.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	14.9		10.9	16.1		9.7	12.5		9.1	9.7	
Reference Time (s)	7.2			16.1			4.7			2.8		
Adj Reference Time (s)	11.2			20.1			8.7			8.0		
Split Option												
Ref Time Combined (s)	0.0	6.9		0.0	8.1		0.0	4.5		0.0	1.7	
Ref Time Seperate (s)	0.7	5.2		2.9	4.4		1.7	0.1		1.1	0.2	
Reference Time (s)	6.9	6.9		8.1	8.1		4.5	4.5		1.7	1.7	
Adj Reference Time (s)	10.9	10.9		12.1	12.1		8.5	8.5		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.1		8.7									
Split Option (s)	23.0		16.5									
Minimum (s)	20.1		8.7		28.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
55: 6th St SE & 8th Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Future Vol, veh/h	8	64	13	35	55	9	20	1	30	13	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	87	18	48	75	12	27	1	41	18	3	7
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	105	0	0	300	301	96	316	304	81
Stage 1	-	-	-	-	-	-	118	118	-	177	177	-
Stage 2	-	-	-	-	-	-	182	183	-	139	127	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1486	-	-	652	612	960	637	609	979
Stage 1	-	-	-	-	-	-	887	798	-	825	753	-
Stage 2	-	-	-	-	-	-	820	748	-	864	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1486	-	-	625	586	960	589	583	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	586	-	589	583	-
Stage 1	-	-	-	-	-	-	880	792	-	818	727	-
Stage 2	-	-	-	-	-	-	784	723	-	819	785	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2.7			10			10.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	785	1509	-	-	1486	-	-	653				
HCM Lane V/C Ratio	0.088	0.007	-	-	0.032	-	-	0.042				
HCM Control Delay (s)	10	7.4	0	-	7.5	0	-	10.8				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1				

DESIGN YEAR 2D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865											
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	658			323			163			323		
Travel Time (s)	15.0			7.3			3.7			7.3		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	27	0	0	75	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	75	0	0	46	0	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free			Free			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	13.6%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt								0.865				
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	1611	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		658			323			163			323	
Travel Time (s)		15.0			7.3			3.7			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Future Volume (vph)	0	20	0	0	55	0	0	0	34	0	7	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	27	0	0	75	0	0	0	46	0	10	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	75	0	0	46	0	0	10	0
Intersection Summary												

DESIGN YEAR 2D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

59: 6th St SE & 2nd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	25	0	0	69	0	0	0	43	0	9	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	25	0	0	69	0	0	43	0	0	9	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	1.00	0.85
Saturated Flow (vph)	0	1900	0	0	1900	0	0	1615	0	0	1900	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time A (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Adj Saturation B (vph)	0	1900		0	1900		0	1615		0	1900	
Reference Time B (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Reference Time (s)	1.6				4.3				3.2			
Adj Reference Time (s)	8.0				8.3				8.0			
Split Option												
Ref Time Combined (s)	0.0	1.6		0.0	4.3		0.0	3.2		0.0	0.6	
Ref Time Seperate (s)	0.0	1.6		0.0	4.3		0.0	0.0		0.0	0.6	
Reference Time (s)	1.6	1.6		4.3	4.3		3.2	3.2		0.6	0.6	
Adj Reference Time (s)	8.0	8.0		8.3	8.3		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.3		8.0									
Split Option (s)	16.3		16.0									
Minimum (s)	8.3		8.0		16.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	13.6%			ICU Level of Service				A				
Reference Times and Phasing Options do not represent an optimized timing plan.												

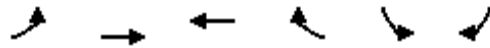
DESIGN YEAR 2D
59: 6th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Future Vol, veh/h	0	20	0	0	55	0	0	0	34	0	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	0	0	75	0	0	0	46	0	10	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	27	0	0	107	102	27	125	102	75
Stage 1	-	-	-	-	-	-	27	27	-	75	75	-
Stage 2	-	-	-	-	-	-	80	75	-	50	27	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1524	-	-	1587	-	-	872	788	1048	849	788	986
Stage 1	-	-	-	-	-	-	990	873	-	934	833	-
Stage 2	-	-	-	-	-	-	929	833	-	963	873	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1524	-	-	1587	-	-	864	788	1048	812	788	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	864	788	-	812	788	-
Stage 1	-	-	-	-	-	-	990	873	-	934	833	-
Stage 2	-	-	-	-	-	-	918	833	-	921	873	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			8.6			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1048	1524	-	-	1587	-	-	788				
HCM Lane V/C Ratio	0.044	-	-	-	-	-	-	0.012				
HCM Control Delay (s)	8.6	0	-	-	0	-	-	9.6				
HCM Lane LOS	A	A	-	-	A	-	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0				

DESIGN YEAR 2D
62: 2nd Ave SE & 7th St SE

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	71	73	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	115	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	15.9%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2D
62: 2nd Ave SE & 7th St SE

01/15/2025



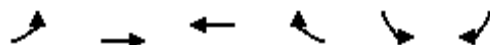
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1859	1771	0	1766	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1859	1771	0	1766	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		323	661		329	
Travel Time (s)		7.3	15.0		7.5	

Intersection Summary

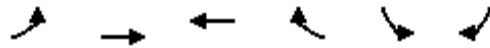
Area Type: Other

DESIGN YEAR 2D
62: 2nd Ave SE & 7th St SE

01/15/2025



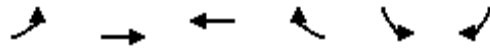
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	2	52	54	31	39	2
Future Volume (vph)	2	52	54	31	39	2
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	3	71	73	42	53	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	115	0	56	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2D
62: 2nd Ave SE & 7th St SE

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	3	65	68	39	49	3
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	68	106	0	51	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.95	0.85	0.95	0.85
Saturated Flow (vph)	0	1896	1796	0	1796	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1240	1796		120	
Reference Time A (s)	0.0	6.5	7.1		51.4	
Adj Saturation B (vph)	0	0	1796		NA	
Reference Time B (s)	8.2	12.3	7.1		NA	
Reference Time (s)		6.5	7.1			
Adj Reference Time (s)		10.5	11.1			
Split Option						
Ref Time Combined (s)	0.0	4.3	7.1		3.4	
Ref Time Seperate (s)	0.2	4.1	4.5		3.3	
Reference Time (s)	4.3	4.3	7.1		3.4	
Adj Reference Time (s)	8.3	8.3	11.1		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	11.1		Err			
Split Option (s)	19.4		8.0			
Minimum (s)	11.1		8.0		19.1	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		15.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	52	54	31	39	2
Future Vol, veh/h	2	52	54	31	39	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	71	73	42	53	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	0 171 94
Stage 1	-	-	- - 94 -
Stage 2	-	-	- - 77 -
Critical Hdwy	4.12	-	- - 6.42 6.22
Critical Hdwy Stg 1	-	-	- - 5.42 -
Critical Hdwy Stg 2	-	-	- - 5.42 -
Follow-up Hdwy	2.218	-	- - 3.518 3.318
Pot Cap-1 Maneuver	1474	-	- - 819 963
Stage 1	-	-	- - 930 -
Stage 2	-	-	- - 946 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	- - 817 963
Mov Cap-2 Maneuver	-	-	- - 817 -
Stage 1	-	-	- - 928 -
Stage 2	-	-	- - 946 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	823
HCM Lane V/C Ratio	0.002	-	-	-	0.068
HCM Control Delay (s)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

DESIGN YEAR 2D

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	14.0%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D
64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.990			0.983						0.932	
Flt Protected		0.991			0.994						0.976	
Satd. Flow (prot)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Flt Permitted		0.991			0.994						0.976	
Satd. Flow (perm)	0	1828	0	0	1820	0	0	1863	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		665			319			323			157	
Travel Time (s)		15.1			7.3			7.3			3.6	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Future Volume (vph)	7	31	3	4	22	4	0	0	0	6	0	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	42	4	5	30	5	0	0	0	8	0	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	40	0	0	0	0	0	16	0
Intersection Summary												

DESIGN YEAR 2D

64: 6th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
64: 6th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	39	4	5	28	5	0	0	0	8	0	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	51	0	0	38	0	0	0	0	0	15	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.85	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1863	0	0	1850	0	0	1900	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1284		0	1478		0	1900		0	1371	
Reference Time A (s)	0.0	4.8		0.0	3.0		0.0	0.0		0.0	1.3	
Adj Saturation B (vph)	0	0		0	0		0	1900		0	0	
Reference Time B (s)	8.6	11.3		8.3	10.4		0.0	0.0		8.5	9.1	
Reference Time (s)	4.8			3.0			0.0			1.3		
Adj Reference Time (s)	8.8			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.3		0.0	2.4		0.0	0.0		0.0	1.1	
Ref Time Seperate (s)	0.6	2.5		0.3	1.8		0.0	0.0		0.5	0.0	
Reference Time (s)	3.3	3.3		2.4	2.4		0.0	0.0		1.1	1.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		0.0	0.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.8		8.0									
Split Option (s)	16.0		8.0									
Minimum (s)	8.8		8.0		16.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	14.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
64: 6th St SE & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Future Vol, veh/h	7	31	3	4	22	4	0	0	0	6	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	42	4	5	30	5	0	0	0	8	0	8
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	38	20	4	43	24	0	8	0	0	0	0	0
Stage 1	20	20	-	0	0	-	-	-	-	-	-	-
Stage 2	18	0	-	43	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	967	874	1080	960	869	-	1612	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	971	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	874	1080	922	869	-	1612	-	-	-	-	-
Mov Cap-2 Maneuver	-	874	-	922	869	-	-	-	-	-	-	-
Stage 1	999	879	-	-	-	-	-	-	-	-	-	-
Stage 2	1001	-	-	921	875	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0											
HCM LOS	-		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1612	-	-	-	-	-	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Control Delay (s)	0	-	-	-	-	-	-	-				
HCM Lane LOS	A	-	-	-	-	-	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-				

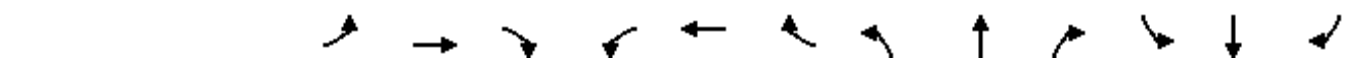
DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.992			0.978			0.921	
Flt Protected		0.977			0.993			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1835	0	0	1773	0	0	1690	0
Flt Permitted		0.873			0.969			0.894			0.935	
Satd. Flow (perm)	0	1613	0	0	1791	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	54	56	7	7	39	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	49	0	0	25	0	0	70	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		2			6			
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5		22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.18			0.07			0.04			0.11	
Control Delay		9.2			8.3			7.7			5.3	
Queue Delay		0.0			0.0			0.0			0.0	

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		9.2			8.3			7.7			5.3	
LOS		A			A			A			A	
Approach Delay		9.3			8.3			7.7			5.3	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.9

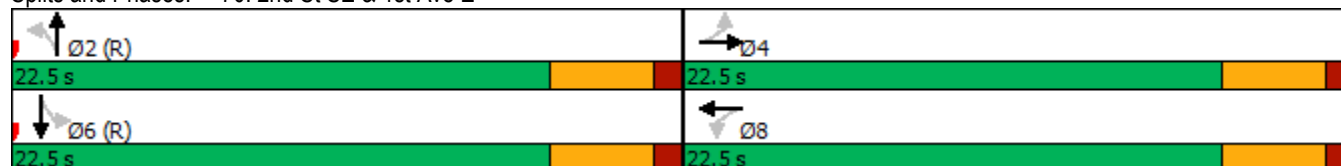
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.992			0.978			0.921	
Flt Protected		0.977			0.993			0.973			0.985	
Satd. Flow (prot)	0	1805	0	0	1835	0	0	1773	0	0	1690	0
Flt Permitted		0.873			0.969			0.894			0.935	
Satd. Flow (perm)	0	1613	0	0	1791	0	0	1629	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			4			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1176			661			164			803	
Travel Time (s)		26.7			15.0			3.7			18.3	

Intersection Summary

Area Type: Other

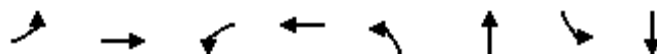
DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (vph)	40	41	5	5	29	2	10	5	3	16	5	30
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	54	56	7	7	39	3	14	7	4	22	7	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	49	0	0	25	0	0	70	0
Intersection Summary												

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	40	41	5	29	10	5	16	5
Future Volume (vph)	40	41	5	29	10	5	16	5
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		18.0		18.0		18.0		18.0
Actuated g/C Ratio		0.40		0.40		0.40		0.40
v/c Ratio		0.18		0.07		0.04		0.11
Control Delay		9.2		8.3		7.7		5.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		9.2		8.3		7.7		5.3
LOS		A		A		A		A
Approach Delay		9.3		8.3		7.7		5.3
Approach LOS		A		A		A		A

Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 7.9

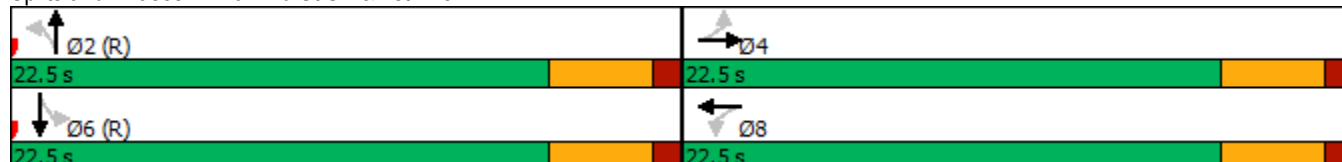
Intersection LOS: A

Intersection Capacity Utilization 24.2%

ICU Level of Service A

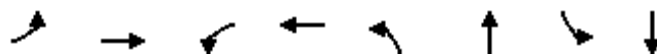
Analysis Period (min) 15

Splits and Phases: 70: 2nd St SE & 1st Ave E



DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0
90th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

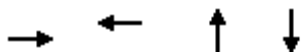
Intersection Summary

Cycle Length: 45

Actuated Cycle Length: 45

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Pretimed



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	117	49	25	70
v/c Ratio	0.18	0.07	0.04	0.11
Control Delay	9.2	8.3	7.7	5.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.2	8.3	7.7	5.3
Queue Length 50th (ft)	17	7	3	4
Queue Length 95th (ft)	41	21	13	m21
Internal Link Dist (ft)	1096	581	84	723
Turn Bay Length (ft)				
Base Capacity (vph)	649	718	654	666
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.07	0.04	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	51	6	6	36	3	13	6	4	20	6	38
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Minimum Green (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	108	0	0	45	0	0	23	0	0	64	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	0.98	0.85	0.95	0.95	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1840	0	0	1871	0	0	1801	0	0	1705	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	726		0	1820		0	1036		0	1603	
Reference Time A (s)	0.0	17.8		0.0	3.0		0.0	2.6		0.0	4.8	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	11.3	15.0		8.4	10.9		8.8	9.5		9.3	12.5	
Reference Time (s)	15.0			3.0			2.6			4.8		
Adj Reference Time (s)	19.5			9.5			9.5			9.5		
Split Option												
Ref Time Combined (s)	0.0	7.0		0.0	2.9		0.0	1.5		0.0	4.5	
Ref Time Seperate (s)	3.3	3.3		0.4	2.3		0.8	0.4		1.3	0.5	
Reference Time (s)	7.0	7.0		2.9	2.9		1.5	1.5		4.5	4.5	
Adj Reference Time (s)	11.5	11.5		9.5	9.5		9.5	9.5		9.5	9.5	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	19.5		9.5									
Split Option (s)	21.0		19.0									
Minimum (s)	19.5		9.5		29.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	39	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	354	39	141	626	44	433	207	98	254	113	370
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	636	884	97	125	1566	110	771	519	246	372	283	925
Grp Volume(v), veh/h	117	0	0	49	0	0	25	0	0	70	0	0
Grp Sat Flow(s),veh/h/ln	1617	0	0	1801	0	0	1535	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.7	0.0	0.0	0.4	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.46		0.06	0.14		0.06	0.56		0.16	0.31		0.59
Lane Grp Cap(c), veh/h	764	0	0	812	0	0	739	0	0	737	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.06	0.00	0.00	0.03	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	764	0	0	812	0	0	739	0	0	737	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.3	0.0	0.0	8.2	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.1	0.0	0.0	8.5	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		117			49			25			70	
Approach Delay, s/veh		9.1			8.5			8.3			8.7	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5		22.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		2.4		3.8		3.2		2.7				
Green Ext Time (p_c), s		0.0		0.4		0.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Future Volume (veh/h)	40	41	5	5	29	2	10	5	3	16	5	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	56	7	7	39	3	14	7	4	22	7	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	371	354	39	141	626	44	433	207	98	254	113	370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.1	0.0	0.0	8.5	0.0	0.0	8.3	0.0	0.0	8.7	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h	117				49				25		70	
Approach Delay, s/veh	9.1				8.5				8.3		8.7	
Approach LOS	A				A				A		A	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	2				4				6		8	
Case No	8.0				8.0				8.0		8.0	
Phs Duration (G+Y+Rc), s	22.5				22.5				22.5		22.5	
Change Period (Y+Rc), s	4.5				4.5				4.5		4.5	
Max Green (Gmax), s	18.0				18.0				18.0		18.0	
Max Allow Headway (MAH), s	5.4				5.3				5.4		5.3	
Max Q Clear (g_c+I1), s	2.4				3.8				3.2		2.7	
Green Ext Time (g_e), s	0.0				0.4				0.2		0.1	
Prob of Phs Call (p_c)	1.00				1.00				1.00		1.00	
Prob of Max Out (p_x)	0.00				0.00				0.00		0.00	
Left-Turn Movement Data												
Assigned Mvmt	5				7				1		3	
Mvmt Sat Flow, veh/h	771				636				372		125	
Through Movement Data												
Assigned Mvmt	2				4				6		8	
Mvmt Sat Flow, veh/h	519				884				283		1566	
Right-Turn Movement Data												
Assigned Mvmt	12				14				16		18	
Mvmt Sat Flow, veh/h	246				97				925		110	
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment	L+T+R		L+T+R		L+T+R		L+T+R					

DESIGN YEAR 2D
70: 2nd St SE & 1st Ave E

01/15/2025

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	25	0	117	0	70	0	49
Grp Sat Flow (s), veh/h/ln	0	1535	0	1617	0	1580	0	1801
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	0.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	1386	0	1426	0	1360
Shared LT Sat Flow (s_sh), veh/h/ln	0	1819	0	1828	0	1841	0	1857
Perm LT Eff Green (g_p), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Perm LT Serve Time (g_u), s	0.0	16.8	0.0	17.3	0.0	17.6	0.0	16.2
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.6	0.0	2.3	0.0	4.2	0.0	9.0
Serve Time pre Blk (g_fs), s	0.0	0.4	0.0	1.8	0.0	1.2	0.0	0.7
Prop LT Inside Lane (P_L)	0.00	0.56	0.00	0.46	0.00	0.31	0.00	0.14
Lane Grp Cap (c), veh/h	0	739	0	764	0	737	0	812
V/C Ratio (X)	0.00	0.03	0.00	0.15	0.00	0.09	0.00	0.06
Avail Cap (c_a), veh/h	0	739	0	764	0	737	0	812
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	8.6	0.0	8.4	0.0	8.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.4	0.0	0.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.3	0.0	9.1	0.0	8.7	0.0	8.5
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	0.3	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.7	0.0	0.4	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.02	0.00	0.01	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.16	0.00	0.06	0.00	0.59	0.00	0.06
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

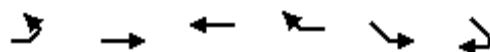
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	24.0	24.0	24.0	24.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	1.80	1.76	1.72	1.76
Pedestrian Crosswalk LOS	B	B	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	117	49	25	70
Effct. Green for Bike (s)	18.0	18.0	18.0	18.0
Cross Street Width (ft)	24.0	24.0	24.0	24.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	800	800	800
Bicycle Delay (s/bike)	8.1	8.1	8.1	8.1
Bicycle Compliance	Good	Good	Good	Good
Bicycle LOS Score	2.12	2.01	1.97	2.04
Bicycle LOS	B	B	B	B

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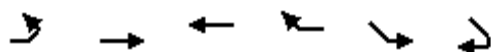


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Traffic Volume (vph)	0	121	0	0	0	0
Future Volume (vph)	0	121	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frnt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	164	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	164	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	11.3%			ICU Level of Service A		
Analysis Period (min)	15					

DESIGN YEAR 2D

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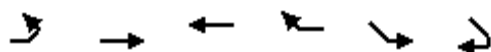
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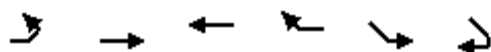
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	1863	0	0
Link Speed (mph)		60	30		30	
Link Distance (ft)		3996	421		653	
Travel Time (s)		45.4	9.6		14.8	

Intersection Summary

Area Type: Other



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Traffic Volume (vph)	0	121	0	0	0	0
Future Volume (vph)	0	121	0	0	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	164	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	164	0	0	0	0
Intersection Summary						

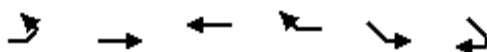


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

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Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑		↑		
Volume (vph)	0	151	0	0	0	0
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	151	0	0	0	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	1.00	0.85	0.95	0.85
Saturated Flow (vph)	0	1900	0	1615	0	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		Yes	Yes		No	
Reference Time (s)	0.0	9.6	0.0	0.0		0.0
Adj Reference Time (s)	0.0	13.6	0.0	8.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	1900	0		0	
Reference Time A (s)	0.0	9.6	0.0		0.0	
Adj Saturation B (vph)	0	1900	NA		NA	
Reference Time B (s)	0.0	9.6	NA		NA	
Reference Time (s)		9.6	0.0			
Adj Reference Time (s)		13.6	8.0			
Split Option						
Ref Time Combined (s)	0.0	9.6	0.0		0.0	
Ref Time Seperate (s)	0.0	9.6	0.0		0.0	
Reference Time (s)	9.6	9.6	0.0		0.0	
Adj Reference Time (s)	13.6	13.6	0.0		0.0	
Summary	EB WB		SE	Combined		
Protected Option (s)	13.6		NA			
Permitted Option (s)	13.6		Err			
Split Option (s)	13.6		0.0			
Minimum (s)	13.6		0.0	13.6		
Right Turns	WBR					
Adj Reference Time (s)	8.0					
Cross Thru Ref Time (s)	0.0					
Oncoming Left Ref Time (s)	0.0					
Combined (s)	0.0					
Intersection Summary						
Intersection Capacity Utilization		11.3%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

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79: 2nd St SE & Beltline Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959			0.941			0.929			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	24	4	12	24	18	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	75	0	0	57	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%				ICU Level of Service A							
Analysis Period (min)	15											

DESIGN YEAR 2D

79: 2nd St SE & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.941			0.929			0.963	
Flt Protected		0.971			0.984			0.984			0.975	
Satd. Flow (prot)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Flt Permitted		0.971			0.984			0.984			0.975	
Satd. Flow (perm)	0	1735	0	0	1725	0	0	1703	0	0	1749	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1960			3650			803			601	
Travel Time (s)		38.2			71.1			18.3			13.7	
Intersection Summary												
Area Type:	Other											

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79: 2nd St SE & Beltline Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Future Volume (vph)	18	3	9	18	13	24	14	6	22	37	15	19
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	24	4	12	24	18	33	19	8	30	50	20	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	75	0	0	57	0	0	96	0
Intersection Summary												

DESIGN YEAR 2D

79: 2nd St SE & Beltline Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

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79: 2nd St SE & Beltline Rd

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	4	11	23	16	30	18	8	28	46	19	24
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	38	0	0	69	0	0	53	0	0	89	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.91	0.85	0.95	0.93	0.85
Saturated Flow (vph)	0	1760	0	0	1747	0	0	1722	0	0	1776	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	992			0	1674			0	1567		
Reference Time A (s)	0.0	4.5			0.0	4.9			0.0	4.0		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	9.5	10.6			9.5	12.7			9.2	11.7		
Reference Time (s)	4.5				4.9				4.0			
Adj Reference Time (s)	8.5				8.9				8.0			
Split Option												
Ref Time Combined (s)	0.0	2.6			0.0	4.7			0.0	3.7		
Ref Time Seperate (s)	1.5	0.3			1.5	1.1			1.2	0.5		
Reference Time (s)	2.6	2.6			4.7	4.7			3.7	3.7		
Adj Reference Time (s)	8.0	8.0			8.7	8.7			8.0	8.0		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	8.9		13.7									
Split Option (s)	16.7		18.0									
Minimum (s)	8.9		13.7		22.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.8%				ICU Level of Service				A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

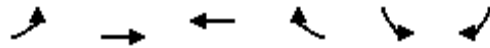
DESIGN YEAR 2D
79: 2nd St SE & Beltline Rd

01/15/2025

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Future Vol, veh/h	18	3	9	18	13	24	14	6	22	37	15	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	4	12	24	18	33	19	8	30	50	20	26
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	51	0	0	16	0	0	164	157	10	160	147	35
Stage 1	-	-	-	-	-	-	58	58	-	83	83	-
Stage 2	-	-	-	-	-	-	106	99	-	77	64	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1555	-	-	1602	-	-	801	735	1071	806	744	1038
Stage 1	-	-	-	-	-	-	954	847	-	925	826	-
Stage 2	-	-	-	-	-	-	900	813	-	932	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1555	-	-	1602	-	-	747	712	1071	758	721	1038
Mov Cap-2 Maneuver	-	-	-	-	-	-	747	712	-	758	721	-
Stage 1	-	-	-	-	-	-	939	833	-	910	814	-
Stage 2	-	-	-	-	-	-	843	801	-	883	829	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.4			2.4			9.4			10.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	880	1555	-	-	1602	-	-	808				
HCM Lane V/C Ratio	0.065	0.016	-	-	0.015	-	-	0.119				
HCM Control Delay (s)	9.4	7.4	0	-	7.3	0	-	10.1				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4				

DESIGN YEAR 2D
80: Beltline Rd & 8th St NW

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 20.9%				ICU Level of Service A		
Analysis Period (min) 15						

DESIGN YEAR 2D
80: Beltline Rd & 8th St NW

01/15/2025



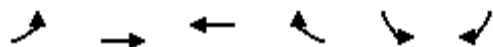
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.951		0.899	
Flt Protected		0.990			0.988	
Satd. Flow (prot)	0	1844	1771	0	1655	0
Flt Permitted		0.990			0.988	
Satd. Flow (perm)	0	1844	1771	0	1655	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		939	1095		603	
Travel Time (s)		18.3	21.3		13.7	

Intersection Summary

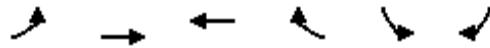
Area Type: Other

DESIGN YEAR 2D
80: Beltline Rd & 8th St NW

01/15/2025



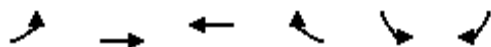
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	13	50	44	25	8	24
Future Volume (vph)	13	50	44	25	8	24
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	18	68	60	34	11	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	94	0	44	0
Intersection Summary						



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2D
80: Beltline Rd & 8th St NW

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	16	63	55	31	10	30
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	79	86	0	40	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.99	0.95	0.85	0.88	0.85
Saturated Flow (vph)	0	1880	1797	0	1665	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	454	1797		111	
Reference Time A (s)	0.0	20.8	5.8		43.2	
Adj Saturation B (vph)	0	0	1797		NA	
Reference Time B (s)	9.1	13.0	5.8		NA	
Reference Time (s)		13.0	5.8			
Adj Reference Time (s)		17.0	9.8			
Split Option						
Ref Time Combined (s)	0.0	5.0	5.8		2.9	
Ref Time Seperate (s)	1.1	3.9	3.7		0.7	
Reference Time (s)	5.0	5.0	5.8		2.9	
Adj Reference Time (s)	9.0	9.0	9.8		8.0	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	17.0		Err			
Split Option (s)	18.8		8.0			
Minimum (s)	17.0		8.0		25.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		20.9%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	50	44	25	8	24
Future Vol, veh/h	13	50	44	25	8	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	68	60	34	11	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	94	0	0 181 77
Stage 1	-	-	- 77 -
Stage 2	-	-	- 104 -
Critical Hdwy	4.12	-	- 6.42 6.22
Critical Hdwy Stg 1	-	-	- 5.42 -
Critical Hdwy Stg 2	-	-	- 5.42 -
Follow-up Hdwy	2.218	-	- 3.518 3.318
Pot Cap-1 Maneuver	1500	-	- 808 984
Stage 1	-	-	- 946 -
Stage 2	-	-	- 920 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1500	-	- 798 984
Mov Cap-2 Maneuver	-	-	- 798 -
Stage 1	-	-	- 935 -
Stage 2	-	-	- 920 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1500	-	-	-	930
HCM Lane V/C Ratio	0.012	-	-	-	0.047
HCM Control Delay (s)	7.4	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

DESIGN YEAR 2D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.963			0.937			0.956	
Flt Protected		0.998			0.994			0.977			0.970	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1727	0
Flt Permitted		0.998			0.994			0.977			0.970	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1727	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	30	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	49	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.5%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.963			0.937			0.956	
Flt Protected		0.998			0.994			0.977			0.970	
Satd. Flow (prot)	0	1857	0	0	1783	0	0	1705	0	0	1727	0
Flt Permitted		0.998			0.994			0.977			0.970	
Satd. Flow (perm)	0	1857	0	0	1783	0	0	1705	0	0	1727	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1359			793			643			812	
Travel Time (s)		30.9			18.0			14.6			18.5	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D
95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Future Volume (vph)	3	79	1	12	65	29	5	1	5	22	2	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	107	1	16	88	39	7	1	7	30	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	143	0	0	15	0	0	49	0
Intersection Summary												

DESIGN YEAR 2D

95: 5th St NW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

95: 5th St NW & 1st Ave E

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	4	99	1	15	81	36	6	1	6	28	3	15
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	104	0	0	133	0	0	14	0	0	45	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.91	0.85	0.95	0.92	0.85
Saturated Flow (vph)	0	1893	0	0	1812	0	0	1730	0	0	1750	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	1732		0	1010		0	1576		0	1212	
Reference Time A (s)	0.0	7.2		0.0	15.7		0.0	1.0		0.0	4.5	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.2	14.6		9.0	16.8		8.4	9.0		9.8	11.1	
Reference Time (s)	7.2			15.7			1.0			4.5		
Adj Reference Time (s)	11.2			19.7			8.0			8.5		
Split Option												
Ref Time Combined (s)	0.0	6.6		0.0	8.8		0.0	1.0		0.0	3.1	
Ref Time Seperate (s)	0.2	6.2		1.0	5.4		0.4	0.1		1.8	0.2	
Reference Time (s)	6.6	6.6		8.8	8.8		1.0	1.0		3.1	3.1	
Adj Reference Time (s)	10.6	10.6		12.8	12.8		8.0	8.0		8.0	8.0	
Summary	EB WB	NB SB		Combined								
Protected Option (s)	NA		NA									
Permitted Option (s)	19.7		8.5									
Split Option (s)	23.4		16.0									
Minimum (s)	19.7		8.5		28.2							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.5%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
95: 5th St NW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	79	1	12	65	29	5	1	5	22	2	12
Future Vol, veh/h	3	79	1	12	65	29	5	1	5	22	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	107	1	16	88	39	7	1	7	30	3	16
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	108	0	0	265	275	108	260	256	108
Stage 1	-	-	-	-	-	-	116	116	-	140	140	-
Stage 2	-	-	-	-	-	-	149	159	-	120	116	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1483	-	-	688	632	946	693	648	946
Stage 1	-	-	-	-	-	-	889	800	-	863	781	-
Stage 2	-	-	-	-	-	-	854	766	-	884	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1483	-	-	666	623	946	679	638	946
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	679	638	-
Stage 1	-	-	-	-	-	-	886	798	-	860	772	-
Stage 2	-	-	-	-	-	-	826	757	-	874	798	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			9.8			10.2		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	764	1459	-	-	1483	-	-	747				
HCM Lane V/C Ratio	0.02	0.003	-	-	0.011	-	-	0.065				
HCM Control Delay (s)	9.8	7.5	0	-	7.5	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2				

DESIGN YEAR 2D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.935			0.975			0.939			0.939	
Flt Protected		0.981			0.999			0.973			0.982	
Satd. Flow (prot)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Flt Permitted		0.981			0.999			0.973			0.982	
Satd. Flow (perm)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	4	15	1	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	66	0	0	44	0	0	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.935			0.975			0.939			0.939	
Flt Protected		0.981			0.999			0.973			0.982	
Satd. Flow (prot)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Flt Permitted		0.981			0.999			0.973			0.982	
Satd. Flow (perm)	0	1709	0	0	1814	0	0	1702	0	0	1718	0
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		1095			1960			812			602	
Travel Time (s)		21.3			38.2			18.5			13.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Future Volume (vph)	9	3	11	1	39	9	18	0	15	12	6	15
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	4	15	1	53	12	24	0	20	16	8	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	31	0	0	66	0	0	44	0	0	44	0
Intersection Summary												

DESIGN YEAR 2D

96: 5th St NW & Beltline Rd

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

96: 5th St NW & Beltline Rd

01/15/2025



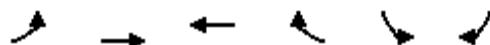
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	11	4	14	1	49	11	23	0	19	15	8	19
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	29	0	0	61	0	0	41	0	0	41	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.91	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.91	0.85
Saturated Flow (vph)	0	1729	0	0	1846	0	0	1722	0	0	1738	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	339		0	1838		0	1099		0	1582	
Reference Time A (s)	0.0	10.2		0.0	4.0		0.0	4.5		0.0	3.1	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	10.0		8.1	12.0		9.5	10.9		9.0	10.8	
Reference Time (s)	10.0		4.0			4.5			3.1			
Adj Reference Time (s)	14.0		8.0			8.5			8.0			
Split Option												
Ref Time Combined (s)	0.0	2.0		0.0	4.0		0.0	2.9		0.0	2.8	
Ref Time Seperate (s)	0.7	0.3		0.1	3.2		1.5	0.0		1.0	0.5	
Reference Time (s)	2.0	2.0		4.0	4.0		2.9	2.9		2.8	2.8	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.0		8.5									
Split Option (s)	16.0		16.0									
Minimum (s)	14.0		8.5		22.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	18.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection												
Int Delay, s/veh	4.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Future Vol, veh/h	9	3	11	1	39	9	18	0	15	12	6	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	4	15	1	53	12	24	0	20	16	8	20
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	19	0	0	111	103	12	107	104	59
Stage 1	-	-	-	-	-	-	36	36	-	61	61	-
Stage 2	-	-	-	-	-	-	75	67	-	46	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1597	-	-	867	787	1069	872	786	1007
Stage 1	-	-	-	-	-	-	980	865	-	950	844	-
Stage 2	-	-	-	-	-	-	934	839	-	968	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1597	-	-	837	780	1069	849	779	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	837	780	-	849	779	-
Stage 1	-	-	-	-	-	-	972	858	-	942	843	-
Stage 2	-	-	-	-	-	-	905	838	-	942	852	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.9			0.1			9.1			9.2		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	929	1537	-	-	1597	-	-	898				
HCM Lane V/C Ratio	0.048	0.008	-	-	0.001	-	-	0.05				
HCM Control Delay (s)	9.1	7.4	0	-	7.3	0	-	9.2				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2				

DESIGN YEAR 2D

101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	98	94	15	16	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	170	109	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 26.8%

ICU Level of Service A

Analysis Period (min) 15

DESIGN YEAR 2D
101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.981		0.889	
Flt Protected		0.979			0.991	
Satd. Flow (prot)	0	1824	1827	0	1641	0
Flt Permitted		0.979			0.991	
Satd. Flow (perm)	0	1824	1827	0	1641	0
Link Speed (mph)		30	30		35	
Link Distance (ft)		2523	1359		939	
Travel Time (s)		57.3	30.9		18.3	

Intersection Summary

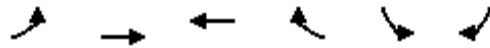
Area Type: Other

DESIGN YEAR 2D
101: 1st Ave E & Beltline Rd

01/15/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	53	72	69	11	12	55
Future Volume (vph)	53	72	69	11	12	55
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	72	98	94	15	16	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	170	109	0	91	0
Intersection Summary						

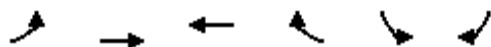


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Intersection Summary						

DESIGN YEAR 2D

101: 1st Ave E & Beltline Rd

01/15/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰		↰	
Volume (vph)	66	90	86	14	15	69
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right				No		No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	0	156	100	0	84	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.98	0.98	0.85	0.87	0.85
Saturated Flow (vph)	0	1860	1861	0	1651	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)		0.00	0.00		0.00	
Protected Option Allowed		No	No		No	
Reference Time (s)				0.0		0.0
Adj Reference Time (s)				0.0		0.0
Permitted Option						
Adj Saturation A (vph)	0	245	1861		110	
Reference Time A (s)	0.0	76.5	6.4		91.3	
Adj Saturation B (vph)	0	0	1861		NA	
Reference Time B (s)	12.4	18.1	6.4		NA	
Reference Time (s)		18.1	6.4			
Adj Reference Time (s)		22.1	10.4			
Split Option						
Ref Time Combined (s)	0.0	10.1	6.4		6.1	
Ref Time Seperate (s)	4.4	5.7	5.6		1.1	
Reference Time (s)	10.1	10.1	6.4		6.1	
Adj Reference Time (s)	14.1	14.1	10.4		10.1	
Summary	EB WB		SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	22.1		Err			
Split Option (s)	24.5		10.1			
Minimum (s)	22.1		10.1		32.2	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		26.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D
101: 1st Ave E & Beltline Rd

01/15/2025

Intersection

Int Delay, s/veh 3.8

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations						
Traffic Vol, veh/h	53	72	69	11	12	55
Future Vol, veh/h	53	72	69	11	12	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	98	94	15	16	75

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	109	0	-	0	344	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1481	-	-	-	652	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1481	-	-	-	619	953
Mov Cap-2 Maneuver	-	-	-	-	619	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	798	-

Approach EB WB SB

HCM Control Delay, s	3.2	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1481	-	-	-	869
HCM Lane V/C Ratio	0.049	-	-	-	0.105
HCM Control Delay (s)	7.6	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

DESIGN YEAR 2D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.965			0.919			0.992	
Flt Protected		0.991			0.968			0.998			0.971	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Flt Permitted		0.991			0.968			0.998			0.971	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	16	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	48	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.1%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.944			0.965			0.919			0.992	
Flt Protected		0.991			0.968			0.998			0.971	
Satd. Flow (prot)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Flt Permitted		0.991			0.968			0.998			0.971	
Satd. Flow (perm)	0	1743	0	0	1740	0	0	1708	0	0	1794	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		804			1849			1710			645	
Travel Time (s)		18.3			42.0			38.9			14.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Future Volume (vph)	2	5	5	65	7	25	4	42	68	21	12	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	7	7	88	10	34	5	57	92	29	16	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	132	0	0	154	0	0	48	0
Intersection Summary												

DESIGN YEAR 2D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
102: 3rd St SW & 3rd Ave SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	6	6	81	9	31	5	53	85	26	15	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	15	0	0	121	0	0	143	0	0	44	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.93	0.85	0.95	0.91	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1766	0	0	1765	0	0	1727	0	0	1827	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1802			0	579			0	1737	0	289
Reference Time A (s)	0.0	1.0			0.0	25.1			0.0	9.8	0.0	18.2
Adj Saturation B (vph)	0	0			0	0			0	0	NA	NA
Reference Time B (s)	8.2	9.0			13.4	16.2			8.3	17.9	NA	NA
Reference Time (s)	1.0				16.2				9.8		18.2	
Adj Reference Time (s)	8.0				20.2				13.8		22.2	
Split Option												
Ref Time Combined (s)	0.0	1.0			0.0	8.2			0.0	9.9	0.0	2.9
Ref Time Seperate (s)	0.2	0.4			5.4	0.6			0.3	3.7	1.7	1.0
Reference Time (s)	1.0	1.0			8.2	8.2			9.9	9.9	2.9	2.9
Adj Reference Time (s)	8.0	8.0			12.2	12.2			13.9	13.9	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	20.2		22.2									
Split Option (s)	20.2		21.9									
Minimum (s)	20.2		21.9		42.1							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	35.1%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Future Vol, veh/h	2	5	5	65	7	25	4	42	68	21	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	7	7	88	10	34	5	57	92	29	16	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	211	235	18	196	190	103	19	0	0	149	0	0
Stage 1	76	76	-	113	113	-	-	-	-	-	-	-
Stage 2	135	159	-	83	77	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	746	666	1061	763	705	952	1597	-	-	1432	-	-
Stage 1	933	832	-	892	802	-	-	-	-	-	-	-
Stage 2	868	766	-	925	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	699	651	1061	739	689	952	1597	-	-	1432	-	-
Mov Cap-2 Maneuver	699	651	-	739	689	-	-	-	-	-	-	-
Stage 1	930	815	-	889	800	-	-	-	-	-	-	-
Stage 2	825	764	-	893	814	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.6	0.3	4.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1597	-	-	787 780	1432	-	-
HCM Lane V/C Ratio	0.003	-	-	0.021 0.169	0.02	-	-
HCM Control Delay (s)	7.3	0	-	9.7 10.6	7.6	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.6	0.1	-	-

DESIGN YEAR 2D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	53	45	62	32	24	58
Future Volume (vph)	53	45	62	32	24	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.938				0.905	
Flt Protected	0.974			0.968		
Satd. Flow (prot)	1702	0	0	1803	1686	0
Flt Permitted	0.974			0.968		
Satd. Flow (perm)	1702	0	0	1803	1686	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	72	61	84	43	33	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	133	0	0	127	112	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 26.8%						
ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.938				0.905	
Flt Protected	0.974			0.968		
Satd. Flow (prot)	1702	0	0	1803	1686	0
Flt Permitted	0.974			0.968		
Satd. Flow (perm)	1702	0	0	1803	1686	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1170			142	1289	
Travel Time (s)	26.6			3.2	29.3	

Intersection Summary

Area Type: Other

DESIGN YEAR 2D
103: 3rd St SW & 12th Ave SW

01/15/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	53	45	62	32	24	58
Future Volume (vph)	53	45	62	32	24	58
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	72	61	84	43	33	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	133	0	0	127	112	0
Intersection Summary						



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Intersection Summary						

DESIGN YEAR 2D
103: 3rd St SW & 12th Ave SW

01/15/2025



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	66	56	78	40	30	73
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No				No
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	123	0	0	118	103	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.91	0.85	0.95	0.97	0.89	0.85
Saturated Flow (vph)	1721	0	0	1837	1698	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00	0.00	
Protected Option Allowed	No			No	No	
Reference Time (s)		0.0				0.0
Adj Reference Time (s)		0.0				0.0
Permitted Option						
Adj Saturation A (vph)	115		0	166	1698	
Reference Time A (s)	128.1		0.0	84.7	7.2	
Adj Saturation B (vph)	NA		0	0	1698	
Reference Time B (s)	NA		13.2	15.7	7.2	
Reference Time (s)				15.7	7.2	
Adj Reference Time (s)				19.7	11.2	
Split Option						
Ref Time Combined (s)	8.5		0.0	7.7	7.2	
Ref Time Seperate (s)	4.6		5.2	2.5	2.1	
Reference Time (s)	8.5		7.7	7.7	7.2	
Adj Reference Time (s)	12.5		11.7	11.7	11.2	
Summary	EB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		19.7			
Split Option (s)	12.5		22.9			
Minimum (s)	12.5		19.7		32.2	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		26.8%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	5.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	45	62	32	24	58
Future Vol, veh/h	53	45	62	32	24	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	61	84	43	33	79
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	284	73	112	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	706	989	1478	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	665	989	1478	-	-	-
Mov Cap-2 Maneuver	665	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.5	5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1478	-	783	-	-	
HCM Lane V/C Ratio	0.057	-	0.17	-	-	
HCM Control Delay (s)	7.6	0	10.5	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-	

DESIGN YEAR 2D

104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.999			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	82	42	34	71	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	106	0	0	79	0	0	2	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.6%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.954			0.999			0.921			0.932	
Flt Protected					0.984			0.980			0.976	
Satd. Flow (prot)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Flt Permitted					0.984			0.980			0.976	
Satd. Flow (perm)	0	1777	0	0	1831	0	0	1681	0	0	1694	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			1176			645			163	
Travel Time (s)		18.0			26.7			14.7			3.7	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Future Volume (vph)	0	60	31	25	52	1	24	0	34	1	0	1
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	82	42	34	71	1	33	0	46	1	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	106	0	0	79	0	0	2	0
Intersection Summary												

DESIGN YEAR 2D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
104: 3rd St SW & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	75	39	31	65	1	30	0	43	1	0	1
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	114	0	0	98	0	0	73	0	0	3	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.98	0.85	0.95	0.89	0.85	0.95	0.90	0.85
Saturated Flow (vph)	0	1803	0	0	1866	0	0	1697	0	0	1714	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1803			0	313			0	1443	0	1233
Reference Time A (s)	0.0	7.6			0.0	37.4			0.0	6.0	0.0	0.2
Adj Saturation B (vph)	0	1803			0	0			0	0	0	0
Reference Time B (s)	0.0	7.6			10.1	14.3			10.0	13.1	8.1	8.2
Reference Time (s)	7.6				14.3				6.0		0.2	
Adj Reference Time (s)	11.6				18.3				10.0		8.0	
Split Option												
Ref Time Combined (s)	0.0	7.6			0.0	6.3			0.0	5.1	0.0	0.2
Ref Time Seperate (s)	0.0	5.0			2.1	4.1			2.0	0.0	0.1	0.0
Reference Time (s)	7.6	7.6			6.3	6.3			5.1	5.1	0.2	0.2
Adj Reference Time (s)	11.6	11.6			10.3	10.3			9.1	9.1	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	18.3		10.0									
Split Option (s)	21.8		17.1									
Minimum (s)	18.3		10.0		28.3							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	23.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
104: 3rd St SW & 1st Ave E

01/15/2025

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Future Vol, veh/h	0	60	31	25	52	1	24	0	34	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	42	34	71	1	33	0	46	1	0	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	124	0	0	243	243	103	266	264	72
Stage 1	-	-	-	-	-	-	103	103	-	140	140	-
Stage 2	-	-	-	-	-	-	140	140	-	126	124	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1528	-	-	1463	-	-	711	659	952	687	641	990
Stage 1	-	-	-	-	-	-	903	810	-	863	781	-
Stage 2	-	-	-	-	-	-	863	781	-	878	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1528	-	-	1463	-	-	697	643	952	642	626	990
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	643	-	642	626	-
Stage 1	-	-	-	-	-	-	903	810	-	863	762	-
Stage 2	-	-	-	-	-	-	841	762	-	835	793	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.8			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	827	1528	-	-	1463	-	-	779				
HCM Lane V/C Ratio	0.095	-	-	-	0.023	-	-	0.003				
HCM Control Delay (s)	9.8	0	-	-	7.5	0	-	9.6				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0				

DESIGN YEAR 2D

106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986						0.865			0.894	
Flt Protected		0.984									0.989	
Satd. Flow (prot)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.984									0.989	
Satd. Flow (perm)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	12	22	4	0	63	0	0	0	4	10	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	63	0	0	4	0	0	47	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.5%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.986						0.865			0.894	
Flt Protected		0.984									0.989	
Satd. Flow (prot)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Flt Permitted		0.984									0.989	
Satd. Flow (perm)	0	1807	0	0	1863	0	0	1611	0	0	1647	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1310			1170			1141			2411	
Travel Time (s)		29.8			26.6			25.9			54.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Future Volume (vph)	9	16	3	0	46	0	0	0	3	7	0	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	12	22	4	0	63	0	0	0	4	10	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	63	0	0	4	0	0	47	0
Intersection Summary												

DESIGN YEAR 2D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
106: 7th St SW & 12th Ave SW

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	20	4	0	58	0	0	0	4	9	0	34
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	35	0	0	58	0	0	4	0	0	43	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.97	0.85	0.95	1.00	0.85	0.95	0.85	0.85	0.95	0.87	0.85
Saturated Flow (vph)	0	1839	0	0	1900	0	0	1615	0	0	1656	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	308		0	1900		0	1615		0	401	
Reference Time A (s)	0.0	13.6		0.0	3.6		0.0	0.3		0.0	12.7	
Adj Saturation B (vph)	0	0		0	1900		0	1615		0	0	
Reference Time B (s)	8.7	10.3		0.0	3.6		0.0	0.3		8.6	11.1	
Reference Time (s)	10.3			3.6			0.3			11.1		
Adj Reference Time (s)	14.3			8.0			8.0			15.1		
Split Option												
Ref Time Combined (s)	0.0	2.3		0.0	3.6		0.0	0.3		0.0	3.1	
Ref Time Seperate (s)	0.7	1.3		0.0	3.6		0.0	0.0		0.6	0.0	
Reference Time (s)	2.3	2.3		3.6	3.6		0.3	0.3		3.1	3.1	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	14.3		15.1									
Split Option (s)	16.0		16.0									
Minimum (s)	14.3		15.1		29.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.5%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
106: 7th St SW & 12th Ave SW

01/15/2025

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	16	3	0	46	0	0	0	3	7	0	27
Future Vol, veh/h	9	16	3	0	46	0	0	0	3	7	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	22	4	0	63	0	0	0	4	10	0	37
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	26	0	0	130	111	24	113	113	63
Stage 1	-	-	-	-	-	-	48	48	-	63	63	-
Stage 2	-	-	-	-	-	-	82	63	-	50	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1588	-	-	843	779	1052	864	777	1002
Stage 1	-	-	-	-	-	-	965	855	-	948	842	-
Stage 2	-	-	-	-	-	-	926	842	-	963	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1540	-	-	1588	-	-	808	773	1052	855	771	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	808	773	-	855	771	-
Stage 1	-	-	-	-	-	-	957	848	-	940	842	-
Stage 2	-	-	-	-	-	-	892	842	-	952	846	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.4			0			8.4			8.9		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	1052	1540	-	-	1588	-	-	968				
HCM Lane V/C Ratio	0.004	0.008	-	-	-	-	-	0.048				
HCM Control Delay (s)	8.4	7.4	0	-	0	-	-	8.9				
HCM Lane LOS	A	A	A	-	A	-	-	A				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.892											
Flt Protected					0.950			0.994				
Satd. Flow (prot)	0	0	0	0	1770	0	0	1852	0	0	1662	0
Flt Permitted					0.950			0.994				
Satd. Flow (perm)	0	0	0	0	1770	0	0	1852	0	0	1662	0
Link Speed (mph)	30				60			30	30			
Link Distance (ft)	364				4320			808	1371			
Travel Time (s)	8.3				49.1			18.4	31.2			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	0	0	16	0	0	18	144	0	0	30	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	16	0	0	162	0	0	152	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0			0	0			
Link Offset(ft)	0				0			0	0			
Crosswalk Width(ft)	16				16			16	16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Stop				Stop		Free		Free			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 29.6%					ICU Level of Service A							
Analysis Period (min) 15												

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt											0.892	
Flt Protected					0.950			0.994				
Satd. Flow (prot)	0	0	0	0	1770	0	0	1852	0	0	1662	0
Flt Permitted					0.950			0.994				
Satd. Flow (perm)	0	0	0	0	1770	0	0	1852	0	0	1662	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		364			4320			808			1371	
Travel Time (s)		8.3			49.1			18.4			31.2	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Future Volume (vph)	0	0	0	12	0	0	13	106	0	0	22	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	16	0	0	18	144	0	0	30	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	16	0	0	162	0	0	152	0
Intersection Summary												

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	15	0	0	16	133	0	0	28	113
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	0	0	0	15	0	0	149	0	0	140	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	1.00	0.85	0.95	0.95	0.85	0.95	0.99	0.85	0.95	0.88	0.85
Saturated Flow (vph)	0	0	0	0	1805	0	0	1890	0	0	1671	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00			0.00			0.00			0.00		
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	0		0	120		0	722		0	1671	
Reference Time A (s)	0.0	0.0		0.0	15.0		0.0	24.7		0.0	10.1	
Adj Saturation B (vph)	0	0		0	0		NA	NA		NA	NA	
Reference Time B (s)	0.0	0.0		9.0	9.0		NA	NA		NA	NA	
Reference Time (s)	0.0			9.0			24.7			10.1		
Adj Reference Time (s)	8.0			13.0			28.7			14.1		
Split Option												
Ref Time Combined (s)	0.0	0.0		0.0	1.0		0.0	9.4		0.0	10.1	
Ref Time Seperate (s)	0.0	0.0		1.0	0.0		1.1	8.4		0.0	2.0	
Reference Time (s)	0.0	0.0		1.0	1.0		9.4	9.4		10.1	10.1	
Adj Reference Time (s)	0.0	0.0		8.0	8.0		13.4	13.4		14.1	14.1	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.0		28.7									
Split Option (s)	8.0		27.5									
Minimum (s)	8.0		27.5		35.5							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	29.6%			ICU Level of Service					A			
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D

111: 330th Ave

01/15/2025

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	12	0	0	13	106	0	0	22	90
Future Vol, veh/h	0	0	0	12	0	0	13	106	0	0	22	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	0	0	18	144	0	0	30	122
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				271	332	144	152	0	-	-	-	0
Stage 1				180	180	-	-	-	-	-	-	-
Stage 2				91	152	-	-	-	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				718	588	903	1429	-	0	0	-	-
Stage 1				851	750	-	-	-	0	0	-	-
Stage 2				933	772	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				708	0	903	1429	-	-	-	-	-
Mov Cap-2 Maneuver				708	0	-	-	-	-	-	-	-
Stage 1				839	0	-	-	-	-	-	-	-
Stage 2				933	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				10.2		0.8		0				
HCM LOS				B								
Minor Lane/Major Mvmt		NBL	NBTWBLn1	SBT	SBR							
Capacity (veh/h)		1429	-	708	-	-						
HCM Lane V/C Ratio		0.012	-	0.023	-	-						
HCM Control Delay (s)		7.6	0	10.2	-	-						
HCM Lane LOS		A	A	B	-	-						
HCM 95th %tile Q(veh)		0	-	0.1	-	-						

DESIGN YEAR 2D

114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	17	142	9	20	58
Future Volume (vph)	32	17	142	9	20	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.953		0.992			
Flt Protected	0.968					0.987
Satd. Flow (prot)	1718	0	1848	0	0	1839
Flt Permitted	0.968					0.987
Satd. Flow (perm)	1718	0	1848	0	0	1839
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	43	23	193	12	27	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	0	205	0	0	106
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 28.7% ICU Level of Service A						
Analysis Period (min) 15						

DESIGN YEAR 2D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.953		0.992			
Flt Protected	0.968					0.987
Satd. Flow (prot)	1718	0	1848	0	0	1839
Flt Permitted	0.968					0.987
Satd. Flow (perm)	1718	0	1848	0	0	1839
Link Speed (mph)	30		30			30
Link Distance (ft)	1394		1371			2211
Travel Time (s)	31.7		31.2			50.3

Intersection Summary

Area Type: Other

DESIGN YEAR 2D
114: 330th Ave & 12th Ave SW

01/15/2025



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	32	17	142	9	20	58
Future Volume (vph)	32	17	142	9	20	58
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	43	23	193	12	27	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	0	205	0	0	106
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2D

114: 330th Ave & 12th Ave SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	40	21	178	11	25	73
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right		No		No		
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	61	0	189	0	0	98
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.92	0.85	0.99	0.85	0.95	0.99
Saturated Flow (vph)	1742	0	1883	0	0	1876
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	116		1883		0	380
Reference Time A (s)	63.3		12.0		0.0	30.8
Adj Saturation B (vph)	NA		1883		NA	NA
Reference Time B (s)	NA		12.0		NA	NA
Reference Time (s)			12.0			30.8
Adj Reference Time (s)			16.0			34.8
Split Option						
Ref Time Combined (s)	4.2		12.0		0.0	6.2
Ref Time Seperate (s)	2.8		11.3		1.7	4.6
Reference Time (s)	4.2		12.0		6.2	6.2
Adj Reference Time (s)	8.2		16.0		10.2	10.2
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		34.8			
Split Option (s)	8.2		26.3			
Minimum (s)	8.2		26.3		34.5	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization		28.7%		ICU Level of Service		A
Reference Times and Phasing Options do not represent an optimized timing plan.						

DESIGN YEAR 2D
114: 330th Ave & 12th Ave SW

01/15/2025

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	17	142	9	20	58
Future Vol, veh/h	32	17	142	9	20	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	23	193	12	27	79
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	332	199	0	0	205	0
Stage 1	199	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	663	842	-	-	1366	-
Stage 1	835	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	649	842	-	-	1366	-
Mov Cap-2 Maneuver	649	-	-	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	10.6		0		2	
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	705	1366	-	
HCM Lane V/C Ratio	-	-	0.094	0.02	-	
HCM Control Delay (s)	-	-	10.6	7.7	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

DESIGN YEAR 2D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994						0.937				
Flt Protected		0.954									0.955	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1779	0
Flt Permitted		0.954									0.955	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1779	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	49	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.2%						ICU Level of Service A					
Analysis Period (min)	15											

DESIGN YEAR 2D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994						0.937				
Flt Protected		0.954									0.955	
Satd. Flow (prot)	0	1766	0	0	0	0	0	1745	0	0	1779	0
Flt Permitted		0.954									0.955	
Satd. Flow (perm)	0	1766	0	0	0	0	0	1745	0	0	1779	0
Link Speed (mph)		30			60			30			30	
Link Distance (ft)		340			4704			752			808	
Travel Time (s)		7.7			53.5			17.1			18.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

118: 330th Ave

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Future Volume (vph)	113	0	5	0	0	0	0	6	5	36	2	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	154	0	7	0	0	0	0	8	7	49	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	0	0	0	0	15	0	0	52	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

118: 330th Ave

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	0	6	0	0	0	0	8	6	45	3	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	148	0	0	0	0	0	14	0	0	48	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	1.00	0.85	0.95	0.93	0.85	0.95	0.95	0.85
Saturated Flow (vph)	0	1798	0	0	0	0	0	1770	0	0	1810	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	123			0	0			0	1770	0	125
Reference Time A (s)	0.0	143.6			0.0	0.0			0.0	0.9	0.0	45.6
Adj Saturation B (vph)	0	0			0	0			0	1770	0	0
Reference Time B (s)	17.4	17.8			0.0	0.0			0.0	0.9	11.0	11.1
Reference Time (s)	17.8				0.0				0.9		11.1	
Adj Reference Time (s)	21.8				8.0				8.0		15.1	
Split Option												
Ref Time Combined (s)	0.0	9.8			0.0	0.0			0.0	0.9	0.0	3.1
Ref Time Seperate (s)	9.4	0.0			0.0	0.0			0.0	0.5	3.0	0.2
Reference Time (s)	9.8	9.8			0.0	0.0			0.9	0.9	3.1	3.1
Adj Reference Time (s)	13.8	13.8			0.0	0.0			8.0	8.0	8.0	8.0
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.8		15.1									
Split Option (s)	13.8		16.0									
Minimum (s)	13.8		15.1		29.0							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.2%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D

118: 330th Ave

01/15/2025

Intersection

Int Delay, s/veh 8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	113	0	5	0	0	0	0	6	5	36	2	0
Future Vol, veh/h	113	0	5	0	0	0	0	6	5	36	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	154	0	7	0	0	0	0	8	7	49	3	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	113	116	3	-	0	0	15	0	0
Stage 1	101	101	-	-	-	-	-	-	-
Stage 2	12	15	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	884	774	1081	0	-	-	1603	-	0
Stage 1	923	811	-	0	-	-	-	-	0
Stage 2	1011	883	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	857	0	1081	-	-	-	1603	-	-
Mov Cap-2 Maneuver	857	0	-	-	-	-	-	-	-
Stage 1	923	0	-	-	-	-	-	-	-
Stage 2	980	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	6.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	865	1603	-
HCM Lane V/C Ratio	-	-	0.185	0.031	-
HCM Control Delay (s)	-	-	10.1	7.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

DESIGN YEAR 2D

124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.966			0.966			0.977			0.980	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	11	4	5	1	68	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	92	0	0	30	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	17.8%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.966			0.966			0.977			0.980	
Flt Protected		0.973			0.999			0.968			0.988	
Satd. Flow (prot)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Flt Permitted		0.973			0.999			0.968			0.988	
Satd. Flow (perm)	0	1751	0	0	1798	0	0	1762	0	0	1804	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		168			658			322			326	
Travel Time (s)		3.8			15.0			7.3			7.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D
124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Future Volume (vph)	8	3	4	1	50	17	15	4	4	4	9	2
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	11	4	5	1	68	23	20	5	5	5	12	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	92	0	0	30	0	0	20	0
Intersection Summary												

DESIGN YEAR 2D

124: 4th St SE & 2nd Ave SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

124: 4th St SE & 2nd Ave SE

01/15/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	10	4	5	1	63	21	19	5	5	5	11	3
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	19	0	0	85	0	0	29	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.93	0.85	0.95	0.96	0.85	0.95	0.94	0.85	0.95	0.97	0.85
Saturated Flow (vph)	0	1775	0	0	1827	0	0	1790	0	0	1837	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00			0.00			
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	244		0	1830		0	829		0	1839	
Reference Time A (s)	0.0	9.2		0.0	5.6		0.0	4.2		0.0	1.2	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	8.7	9.3		8.1	13.6		9.2	9.9		8.3	9.2	
Reference Time (s)	9.2			5.6			4.2			1.2		
Adj Reference Time (s)	13.2			9.6			8.2			8.0		
Split Option												
Ref Time Combined (s)	0.0	1.3		0.0	5.6		0.0	1.9		0.0	1.2	
Ref Time Seperate (s)	0.7	0.3		0.1	4.1		1.2	0.3		0.3	0.7	
Reference Time (s)	1.3	1.3		5.6	5.6		1.9	1.9		1.2	1.2	
Adj Reference Time (s)	8.0	8.0		9.6	9.6		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	13.2		8.2									
Split Option (s)	17.6		16.0									
Minimum (s)	13.2		8.2		21.4							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	17.8%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
124: 4th St SE & 2nd Ave SE

01/15/2025

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Future Vol, veh/h	8	3	4	1	50	17	15	4	4	4	9	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	4	5	1	68	23	20	5	5	5	12	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	9	0	0	118	122	7	116	113	80
Stage 1	-	-	-	-	-	-	29	29	-	82	82	-
Stage 2	-	-	-	-	-	-	89	93	-	34	31	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1504	-	-	1611	-	-	858	768	1075	861	777	980
Stage 1	-	-	-	-	-	-	988	871	-	926	827	-
Stage 2	-	-	-	-	-	-	918	818	-	982	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1504	-	-	1611	-	-	840	762	1075	847	771	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	840	762	-	847	771	-
Stage 1	-	-	-	-	-	-	981	865	-	920	826	-
Stage 2	-	-	-	-	-	-	901	817	-	964	863	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			9.4			9.5		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	857	1504	-	-	1611	-	-	814				
HCM Lane V/C Ratio	0.036	0.007	-	-	0.001	-	-	0.025				
HCM Control Delay (s)	9.4	7.4	0	-	7.2	0	-	9.5				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

DESIGN YEAR 2D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.973			0.931			0.972	
Flt Protected		0.978			0.998			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	27	20	12	1	15	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	20	0	0	39	0	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.7%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.973			0.931			0.972	
Flt Protected		0.978			0.998			0.990			0.972	
Satd. Flow (prot)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Flt Permitted		0.978			0.998			0.990			0.972	
Satd. Flow (perm)	0	1773	0	0	1809	0	0	1717	0	0	1760	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			665			326			165	
Travel Time (s)		15.0			15.1			7.4			3.8	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D
125: 4th St SE & 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Future Volume (vph)	20	15	9	1	11	3	6	8	15	10	4	4
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	27	20	12	1	15	4	8	11	20	14	5	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	20	0	0	39	0	0	24	0
Intersection Summary												

DESIGN YEAR 2D

125: 4th St SE & 1st Ave E

01/15/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D
125: 4th St SE & 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	19	11	1	14	4	8	10	19	13	5	5
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	55	0	0	19	0	0	36	0	0	23	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.95	0.85	0.95	0.97	0.85	0.95	0.91	0.85	0.95	0.94	0.85
Saturated Flow (vph)	0	1800	0	0	1837	0	0	1734	0	0	1786	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No			No			No			No		
Reference Time (s)	0.0			0.0			0.0			0.0		
Adj Reference Time (s)	0.0			0.0			0.0			0.0		
Permitted Option												
Adj Saturation A (vph)	0	485		0	1822		0	1701		0	785	
Reference Time A (s)	0.0	13.6		0.0	1.2		0.0	2.6		0.0	3.4	
Adj Saturation B (vph)	0	0		0	0		0	0		0	0	
Reference Time B (s)	9.7	11.7		8.1	9.2		8.5	10.5		8.8	9.5	
Reference Time (s)	11.7			1.2			2.6			3.4		
Adj Reference Time (s)	15.7			8.0			8.0			8.0		
Split Option												
Ref Time Combined (s)	0.0	3.7		0.0	1.2		0.0	2.5		0.0	1.5	
Ref Time Seperate (s)	1.7	1.3		0.1	0.9		0.5	0.7		0.8	0.3	
Reference Time (s)	3.7	3.7		1.2	1.2		2.5	2.5		1.5	1.5	
Adj Reference Time (s)	8.0	8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	15.7		8.0									
Split Option (s)	16.0		16.0									
Minimum (s)	15.7		8.0		23.7							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	19.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

DESIGN YEAR 2D
125: 4th St SE & 1st Ave E

01/15/2025

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Future Vol, veh/h	20	15	9	1	11	3	6	8	15	10	4	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	20	12	1	15	4	8	11	20	14	5	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.3	7.1	7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	45%	7%	56%
Vol Thru, %	28%	34%	73%	22%
Vol Right, %	52%	20%	20%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	44	15	18
LT Vol	6	20	1	10
Through Vol	8	15	11	4
RT Vol	15	9	3	4
Lane Flow Rate	39	60	20	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.067	0.023	0.028
Departure Headway (Hd)	3.822	4.029	3.984	4.081
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	932	888	896	873
Service Time	1.864	2.058	2.021	2.124
HCM Lane V/C Ratio	0.042	0.068	0.022	0.027
HCM Control Delay	7	7.3	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.1	0.1

DESIGN YEAR 2D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	24.7%											
Analysis Period (min)	15											
ICU Level of Service A												

DESIGN YEAR 2D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.934						0.980				
Flt Protected		0.991			0.972			0.963			0.993	
Satd. Flow (prot)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Flt Permitted		0.991			0.972			0.963			0.993	
Satd. Flow (perm)	0	1724	0	0	1811	0	0	1758	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1849			305			345			322	
Travel Time (s)		42.0			6.9			7.8			7.3	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Future Volume (vph)	17	30	45	3	2	0	52	6	10	2	13	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	41	61	4	3	0	71	8	14	3	18	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	7	0	0	93	0	0	21	0
Intersection Summary												

DESIGN YEAR 2D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

126: 3rd Ave SE & 4th St SE

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	38	56	4	3	0	65	8	13	3	16	0
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	115	0	0	6	0	0	85	0	0	19	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.97	0.85	0.95	0.94	0.85	0.95	0.99	0.85
Saturated Flow (vph)	0	1744	0	0	1843	0	0	1787	0	0	1887	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1745			0	710			0	451		
Reference Time A (s)	0.0	7.9			0.0	1.1			0.0	22.6		
Adj Saturation B (vph)	0	0			0	0			0	0		
Reference Time B (s)	9.4	15.9			8.2	8.4			12.3	13.7		
Reference Time (s)	7.9				1.1				13.7			
Adj Reference Time (s)	11.9				8.0				17.7			
Split Option												
Ref Time Combined (s)	0.0	7.9			0.0	0.4			0.0	5.7		
Ref Time Seperate (s)	1.4	2.6			0.2	0.2			4.3	0.5		
Reference Time (s)	7.9	7.9			0.4	0.4			5.7	5.7		
Adj Reference Time (s)	11.9	11.9			8.0	8.0			9.7	9.7		
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	11.9		17.7									
Split Option (s)	19.9		17.7									
Minimum (s)	11.9		17.7		29.6							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	24.7%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Future Vol, veh/h	17	30	45	3	2	0	52	6	10	2	13	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	41	61	4	3	0	71	8	14	3	18	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.5	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	18%	60%	13%
Vol Thru, %	9%	33%	40%	87%
Vol Right, %	15%	49%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	92	5	15
LT Vol	52	17	3	2
Through Vol	6	30	2	13
RT Vol	10	45	0	0
Lane Flow Rate	92	125	7	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.135	0.008	0.024
Departure Headway (Hd)	4.244	3.877	4.347	4.262
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	915	812	830
Service Time	2.3	1.943	2.434	2.338
HCM Lane V/C Ratio	0.11	0.137	0.009	0.024
HCM Control Delay	7.8	7.6	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0	0.1

DESIGN YEAR 2D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936			0.953			0.938			0.990	
Flt Protected		0.992			0.981			0.989			0.971	
Satd. Flow (prot)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Flt Permitted		0.992			0.981			0.989			0.971	
Satd. Flow (perm)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	14	34	43	63	41	56	33	50	71	67	38	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	160	0	0	154	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	
Intersection Summary												
Area Type:	Other											
Control Type:	Roundabout											
Intersection Capacity Utilization	34.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

DESIGN YEAR 2D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.936			0.953			0.938			0.990	
Flt Protected		0.992			0.981			0.989			0.971	
Satd. Flow (prot)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Flt Permitted		0.992			0.981			0.989			0.971	
Satd. Flow (perm)	0	1730	0	0	1741	0	0	1728	0	0	1791	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		185			2523			960			940	
Travel Time (s)		4.2			57.3			21.8			21.4	
Intersection Summary												
Area Type:	Other											

DESIGN YEAR 2D

145: 1st Ave E

01/15/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Future Volume (vph)	10	25	32	46	30	41	24	37	52	49	28	6
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	14	34	43	63	41	56	33	50	71	67	38	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	91	0	0	160	0	0	154	0	0	113	0
Intersection Summary												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Intersection Summary												

DESIGN YEAR 2D

145: 1st Ave E

01/15/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	31	40	58	38	51	30	46	65	61	35	8
Pedestrians												
Ped Button												
Pedestrian Timing (s)												
Free Right	No			No			No			No		
Ideal Flow	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120	120	120	120	120	120	120
Volume Combined (vph)	0	84	0	0	146	0	0	141	0	0	104	0
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.95	0.92	0.85	0.95	0.93	0.85	0.95	0.92	0.85	0.95	0.96	0.85
Saturated Flow (vph)	0	1751	0	0	1765	0	0	1750	0	0	1824	0
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00				0.00				0.00	
Protected Option Allowed	No		No				No				No	
Reference Time (s)			0.0				0.0				0.0	
Adj Reference Time (s)			0.0				0.0				0.0	
Permitted Option												
Adj Saturation A (vph)	0	1647			0	821			0	1735	0	780
Reference Time A (s)	0.0	6.1			0.0	21.4			0.0	9.8	0.0	16.0
Adj Saturation B (vph)	0	0			0	0			0	0	0	0
Reference Time B (s)	8.8	13.7			11.8	17.9			10.0	17.7	12.1	14.8
Reference Time (s)	6.1				17.9				9.8		14.8	
Adj Reference Time (s)	10.1				21.9				13.8		18.8	
Split Option												
Ref Time Combined (s)	0.0	5.7			0.0	9.9			0.0	9.7	0.0	6.8
Ref Time Seperate (s)	0.8	2.2			3.8	2.6			2.0	3.2	4.1	2.3
Reference Time (s)	5.7	5.7			9.9	9.9			9.7	9.7	6.8	6.8
Adj Reference Time (s)	9.7	9.7			13.9	13.9			13.7	13.7	10.8	10.8
Summary	EB WB		NB SB		Combined							
Protected Option (s)	NA		NA									
Permitted Option (s)	21.9		18.8									
Split Option (s)	23.7		24.5									
Minimum (s)	21.9		18.8		40.8							
Right Turns												
Adj Reference Time (s)												
Cross Thru Ref Time (s)												
Oncoming Left Ref Time (s)												
Combined (s)												
Intersection Summary												
Intersection Capacity Utilization	34.0%			ICU Level of Service			A					
Reference Times and Phasing Options do not represent an optimized timing plan.												

Intersection				
Intersection Delay, s/veh	4.0			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	91	159	154	113
Demand Flow Rate, veh/h	93	162	157	115
Vehicles Circulating, veh/h	170	99	117	139
Vehicles Exiting, veh/h	84	175	146	122
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	4.0	4.1	3.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	93	162	157	115
Cap Entry Lane, veh/h	1160	1247	1225	1197
Entry HV Adj Factor	0.982	0.983	0.981	0.985
Flow Entry, veh/h	91	159	154	113
Cap Entry, veh/h	1139	1226	1201	1179
V/C Ratio	0.080	0.130	0.128	0.096
Control Delay, s/veh	3.8	4.0	4.1	3.9
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

DESIGN YEAR 2D

167: 3rd St SW

01/15/2025

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1666		872			142
Travel Time (s)	37.9		19.8			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Adj. Flow (vph)	0	280	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	14	0	0	64
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.5%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.865					
Flt Protected						0.971
Satd. Flow (prot)	1611	0	1863	0	0	1809
Flt Permitted						0.971
Satd. Flow (perm)	1611	0	1863	0	0	1809
Link Speed (mph)	30		30			30
Link Distance (ft)	1666		872			142
Travel Time (s)	37.9		19.8			3.2

Intersection Summary

Area Type: Other



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Volume (vph)	0	206	10	0	28	19
Future Volume (vph)	0	206	10	0	28	19
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	125%	125%	125%	125%	125%	125%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	280	14	0	38	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	280	0	14	0	0	64
Intersection Summary						



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Intersection Summary						

DESIGN YEAR 2D

167: 3rd St SW

01/15/2025



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	258	13	0	35	24
Pedestrians						
Ped Button						
Pedestrian Timing (s)						
Free Right	No		No			
Ideal Flow	1900	1900	1900	1900	1900	1900
Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Green (s)	4.0	4.0	4.0	4.0	4.0	4.0
Refr Cycle Length (s)	120	120	120	120	120	120
Volume Combined (vph)	258	0	13	0	0	59
Lane Utilization Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Factor (vph)	0.85	0.85	1.00	0.85	0.95	0.97
Saturated Flow (vph)	1615	0	1900	0	0	1843
Ped Intf Time (s)	0.0	0.0	0.0	0.0	0.0	0.0
Pedestrian Frequency (%)	0.00		0.00			0.00
Protected Option Allowed	No		No			No
Reference Time (s)		0.0		0.0		
Adj Reference Time (s)		0.0		0.0		
Permitted Option						
Adj Saturation A (vph)	108		1900		0	182
Reference Time A (s)	287.0		0.8		0.0	38.8
Adj Saturation B (vph)	NA		1900		0	0
Reference Time B (s)	NA		0.8		10.3	11.8
Reference Time (s)			0.8			11.8
Adj Reference Time (s)			8.0			15.8
Split Option						
Ref Time Combined (s)	19.1		0.8		0.0	3.8
Ref Time Seperate (s)	0.0		0.8		2.3	1.5
Reference Time (s)	19.1		0.8		3.8	3.8
Adj Reference Time (s)	23.1		8.0		8.0	8.0
Summary	WB		NB SB		Combined	
Protected Option (s)	NA		NA			
Permitted Option (s)	Err		15.8			
Split Option (s)	23.1		16.0			
Minimum (s)	23.1		15.8		39.0	
Right Turns						
Adj Reference Time (s)						
Cross Thru Ref Time (s)						
Oncoming Left Ref Time (s)						
Combined (s)						
Intersection Summary						
Intersection Capacity Utilization	32.5%		ICU Level of Service		A	
Reference Times and Phasing Options do not represent an optimized timing plan.						

Intersection						
Int Delay, s/veh	8.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	206	10	0	28	19
Future Vol, veh/h	0	206	10	0	28	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	280	14	0	38	26
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	116	14	0	0	14	0
Stage 1	14	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	880	1066	-	-	1604	-
Stage 1	1009	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	1066	-	-	1604	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	1009	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.6		0		4.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	- 1066	1604	-		
HCM Lane V/C Ratio	-	- 0.263	0.024	-		
HCM Control Delay (s)	-	- 9.6	7.3	0		
HCM Lane LOS	-	- A	A	A		
HCM 95th %tile Q(veh)	-	- 1.1	0.1	-		

Network Totals

Number of Intersections	35
Total Delay (hr)	19
Stops (#)	6485
Average Speed (mph)	27
Total Travel Time (hr)	124
Distance Traveled (mi)	3296
Fuel Consumed (gal)	184
Fuel Economy (mpg)	17.9
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.1

1: IA 136 & 16th Ave/US 20

Direction	EB	WB	NB	SB	All
Future Volume (vph)	199	324	349	385	1257
Control Delay / Veh (s/v)	7	10	12	7	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	10	12	7	9
Total Delay (hr)	0	1	1	1	3
Stops / Veh	0.36	0.46	0.62	0.45	0.48
Stops (#)	71	149	215	172	607
Average Speed (mph)	23	14	21	24	21
Total Travel Time (hr)	2	2	4	4	11
Distance Traveled (mi)	40	24	77	99	240
Fuel Consumed (gal)	2	2	5	6	16
Fuel Economy (mpg)	17.2	9.7	14.8	17.7	15.4
CO Emissions (kg)	0.16	0.17	0.36	0.39	1.09
NOx Emissions (kg)	0.03	0.03	0.07	0.08	0.21
VOC Emissions (kg)	0.04	0.04	0.08	0.09	0.25
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

2: IA 136

Direction	EB	NB	SB	All
Future Volume (vph)	152	270	397	819
Control Delay / Veh (s/v)	14	1	0	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	14	1	0	3
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.28	0.00	0.28
Stops (#)	152	75	0	227
Average Speed (mph)	12	25	30	25
Total Travel Time (hr)	1	1	3	5
Distance Traveled (mi)	12	16	88	116
Fuel Consumed (gal)	2	1	4	7
Fuel Economy (mpg)	6.8	13.8	24.3	17.7
CO Emissions (kg)	0.12	0.08	0.25	0.46
NOx Emissions (kg)	0.02	0.02	0.05	0.09
VOC Emissions (kg)	0.03	0.02	0.06	0.11
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

10: US 20

Direction	EB	All
Future Volume (vph)	137	137
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	30	30
Total Travel Time (hr)	0	0
Distance Traveled (mi)	10	10
Fuel Consumed (gal)	0	0
Fuel Economy (mpg)	NA	NA
CO Emissions (kg)	0.03	0.03
NOx Emissions (kg)	0.01	0.01
VOC Emissions (kg)	0.01	0.01
Unserved Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

16: IA 136 & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	142	75	387	334	938
Control Delay / Veh (s/v)	4	8	11	13	10
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	4	8	11	13	10
Total Delay (hr)	0	0	1	1	3
Stops / Veh	0.24	0.53	0.62	0.70	0.58
Stops (#)	34	40	240	233	547
Average Speed (mph)	25	26	23	19	22
Total Travel Time (hr)	1	1	5	3	10
Distance Traveled (mi)	25	29	109	58	221
Fuel Consumed (gal)	1	2	7	5	14
Fuel Economy (mpg)	18.7	19.0	16.3	12.8	15.7
CO Emissions (kg)	0.09	0.11	0.47	0.32	0.99
NOx Emissions (kg)	0.02	0.02	0.09	0.06	0.19
VOC Emissions (kg)	0.02	0.02	0.11	0.07	0.23
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

26: 9th St SE & 2nd Ave SE

Direction	EB	NB	NW	All
Future Volume (vph)	116	22	92	230
Control Delay / Veh (s/v)	0	10	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	10	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.07	0.12
Stops (#)	0	22	6	28
Average Speed (mph)	30	22	30	28
Total Travel Time (hr)	0	0	1	1
Distance Traveled (mi)	15	5	16	35
Fuel Consumed (gal)	1	0	1	2
Fuel Economy (mpg)	NA	NA	NA	21.3
CO Emissions (kg)	0.04	0.02	0.05	0.11
NOx Emissions (kg)	0.01	0.00	0.01	0.02
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

29:

Direction	NB	SE	SW	All
Future Volume (vph)	266	77	286	629
Control Delay / Veh (s/v)	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	1.00	0.00	0.12
Stops (#)	0	77	0	77
Average Speed (mph)	30	30	30	30
Total Travel Time (hr)	2	1	1	3
Distance Traveled (mi)	46	16	41	103
Fuel Consumed (gal)	2	1	2	5
Fuel Economy (mpg)	24.3	14.8	24.3	22.1
CO Emissions (kg)	0.13	0.08	0.12	0.33
NOx Emissions (kg)	0.03	0.01	0.02	0.06
VOC Emissions (kg)	0.03	0.02	0.03	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

30: Beltline Rd

Direction	EB	WB	SB	NE	All
Future Volume (vph)	77	4	377	335	793
Control Delay / Veh (s/v)	40	30	3	0	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	40	30	3	0	6
Total Delay (hr)	1	0	0	0	1
Stops / Veh	1.00	1.00	0.67	0.04	0.44
Stops (#)	77	4	253	13	347
Average Speed (mph)	22	15	17	30	23
Total Travel Time (hr)	2	0	1	1	4
Distance Traveled (mi)	53	1	14	32	100
Fuel Consumed (gal)	3	0	2	1	7
Fuel Economy (mpg)	16.5	NA	6.4	22.8	14.4
CO Emissions (kg)	0.23	0.01	0.16	0.10	0.49
NOx Emissions (kg)	0.04	0.00	0.03	0.02	0.09
VOC Emissions (kg)	0.05	0.00	0.04	0.02	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

31: 2nd Ave SE

Direction	SE	NW	NE	SW	All
Future Volume (vph)	82	204	246	399	931
Control Delay / Veh (s/v)	25	20	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	25	20	0	2	8
Total Delay (hr)	1	1	0	0	2
Stops / Veh	1.00	1.00	0.00	0.44	0.50
Stops (#)	82	204	0	176	462
Average Speed (mph)	14	20	30	25	22
Total Travel Time (hr)	1	3	1	2	7
Distance Traveled (mi)	14	68	36	38	155
Fuel Consumed (gal)	1	5	1	3	10
Fuel Economy (mpg)	9.7	14.2	24.3	14.0	15.0
CO Emissions (kg)	0.10	0.33	0.10	0.19	0.72
NOx Emissions (kg)	0.02	0.06	0.02	0.04	0.14
VOC Emissions (kg)	0.02	0.08	0.02	0.04	0.17
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

38: 2nd Ave SE

Direction	SE	NW	NE	All
Future Volume (vph)	170	175	31	376
Control Delay / Veh (s/v)	0	1	10	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	1
Total Delay (hr)	0	0	0	0
Stops / Veh	0.00	0.22	1.00	0.18
Stops (#)	0	38	31	69
Average Speed (mph)	30	23	25	28
Total Travel Time (hr)	2	0	0	3
Distance Traveled (mi)	56	6	12	74
Fuel Consumed (gal)	2	0	1	4
Fuel Economy (mpg)	24.3	NA	NA	21.0
CO Emissions (kg)	0.16	0.03	0.05	0.25
NOx Emissions (kg)	0.03	0.01	0.01	0.05
VOC Emissions (kg)	0.04	0.01	0.01	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

49: 6th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	56	159	10	85	310
Control Delay / Veh (s/v)	11	11	0	0	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	11	11	0	0	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	1.00	1.00	0.00	0.08	0.72
Stops (#)	56	159	0	7	222
Average Speed (mph)	15	21	30	30	23
Total Travel Time (hr)	0	2	0	1	3
Distance Traveled (mi)	5	32	0	23	60
Fuel Consumed (gal)	1	3	0	1	4
Fuel Economy (mpg)	NA	12.5	NA	NA	14.4
CO Emissions (kg)	0.05	0.18	0.00	0.07	0.29
NOx Emissions (kg)	0.01	0.03	0.00	0.01	0.06
VOC Emissions (kg)	0.01	0.04	0.00	0.02	0.07
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

52: 6th St SE & 13th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	127	230	48	63	468
Control Delay / Veh (s/v)	8	9	8	8	9
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	9	8	8	9
Total Delay (hr)	0	1	0	0	1
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	127	230	48	63	468
Average Speed (mph)	27	21	24	24	24
Total Travel Time (hr)	3	2	1	1	6
Distance Traveled (mi)	79	41	13	18	150
Fuel Consumed (gal)	4	3	1	1	10
Fuel Economy (mpg)	18.9	12.1	NA	14.9	15.6
CO Emissions (kg)	0.29	0.24	0.06	0.08	0.67
NOx Emissions (kg)	0.06	0.05	0.01	0.02	0.13
VOC Emissions (kg)	0.07	0.06	0.01	0.02	0.16
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

53: IA 136 & 13th Ave SE

Direction	EB	NB	SB	All
Future Volume (vph)	125	489	436	1050
Control Delay / Veh (s/v)	19	3	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	19	3	0	4
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.62	0.00	0.41
Stops (#)	125	305	0	430
Average Speed (mph)	16	27	30	27
Total Travel Time (hr)	1	5	4	10
Distance Traveled (mi)	22	126	123	271
Fuel Consumed (gal)	2	7	5	14
Fuel Economy (mpg)	10.7	17.5	24.3	18.9
CO Emissions (kg)	0.15	0.50	0.35	1.00
NOx Emissions (kg)	0.03	0.10	0.07	0.19
VOC Emissions (kg)	0.03	0.12	0.08	0.23
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

55: 6th St SE & 8th Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	107	124	63	26	320
Control Delay / Veh (s/v)	1	2	10	11	4
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	1	2	10	11	4
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.14	0.39	1.00	1.00	0.48
Stops (#)	15	48	63	26	152
Average Speed (mph)	30	28	23	9	27
Total Travel Time (hr)	2	1	1	0	3
Distance Traveled (mi)	47	22	18	1	87
Fuel Consumed (gal)	2	1	1	0	5
Fuel Economy (mpg)	23.1	18.1	14.6	NA	18.6
CO Emissions (kg)	0.14	0.09	0.08	0.02	0.33
NOx Emissions (kg)	0.03	0.02	0.02	0.00	0.06
VOC Emissions (kg)	0.03	0.02	0.02	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

59: 6th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	25	69	42	9	145
Control Delay / Veh (s/v)	0	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.00	1.00	1.00	0.35
Stops (#)	0	0	42	9	51
Average Speed (mph)	30	30	9	13	21
Total Travel Time (hr)	0	0	0	0	0
Distance Traveled (mi)	3	4	1	1	9
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.01	0.01	0.03	0.01	0.05
NOx Emissions (kg)	0.00	0.00	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.00	0.01	0.00	0.01
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

62: 2nd Ave SE & 7th St SE

Direction	EB	WB	SB	All
Future Volume (vph)	68	106	52	226
Control Delay / Veh (s/v)	0	0	10	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	0	0	10	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.06	0.00	1.00	0.25
Stops (#)	4	0	52	56
Average Speed (mph)	29	30	18	25
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	4	13	6	24
Fuel Consumed (gal)	0	1	1	1
Fuel Economy (mpg)	NA	NA	NA	17.1
CO Emissions (kg)	0.01	0.04	0.05	0.10
NOx Emissions (kg)	0.00	0.01	0.01	0.02
VOC Emissions (kg)	0.00	0.01	0.01	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

64: 6th St SE & 1st Ave E

Direction	EB	WB	SB	All
Future Volume (vph)	52	37	15	104
Control Delay / Veh (s/v)	9	9	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	9	9	2	8
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	1.00	0.40	0.91
Stops (#)	52	37	6	95
Average Speed (mph)	19	18	20	19
Total Travel Time (hr)	0	0	0	1
Distance Traveled (mi)	7	5	0	12
Fuel Consumed (gal)	1	0	0	1
Fuel Economy (mpg)	NA	NA	NA	9.8
CO Emissions (kg)	0.05	0.03	0.00	0.08
NOx Emissions (kg)	0.01	0.01	0.00	0.02
VOC Emissions (kg)	0.01	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

70: 2nd St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	108	45	23	64	240
Control Delay / Veh (s/v)	9	8	8	5	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	9	8	8	5	8
Total Delay (hr)	0	0	0	0	1
Stops / Veh	0.58	0.62	0.65	0.34	0.53
Stops (#)	63	28	15	22	128
Average Speed (mph)	22	19	10	23	22
Total Travel Time (hr)	1	0	0	0	2
Distance Traveled (mi)	24	6	1	10	40
Fuel Consumed (gal)	2	0	0	1	3
Fuel Economy (mpg)	15.6	NA	NA	NA	14.6
CO Emissions (kg)	0.11	0.03	0.01	0.04	0.19
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.01	0.00	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

72:

Direction	EB	All
Future Volume (vph)	151	151
Control Delay / Veh (s/v)	0	0
Queue Delay / Veh (s/v)	0	0
Total Delay / Veh (s/v)	0	0
Total Delay (hr)	0	0
Stops / Veh	0.00	0.00
Stops (#)	0	0
Average Speed (mph)	60	60
Total Travel Time (hr)	4	4
Distance Traveled (mi)	249	249
Fuel Consumed (gal)	9	9
Fuel Economy (mpg)	29.3	29.3
CO Emissions (kg)	0.59	0.59
NOx Emissions (kg)	0.12	0.12
VOC Emissions (kg)	0.14	0.14
Unserviced Vehicles (#)	0	0
Vehicles in dilemma zone (#)	0	0

79: 2nd St SE & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	37	69	52	88	246
Control Delay / Veh (s/v)	2	2	9	10	6
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	2	9	10	6
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.38	0.33	1.00	1.00	0.72
Stops (#)	14	23	52	88	177
Average Speed (mph)	33	34	20	17	28
Total Travel Time (hr)	0	1	0	1	3
Distance Traveled (mi)	14	48	8	10	79
Fuel Consumed (gal)	1	2	1	1	4
Fuel Economy (mpg)	NA	23.7	NA	9.3	17.8
CO Emissions (kg)	0.04	0.14	0.05	0.08	0.31
NOx Emissions (kg)	0.01	0.03	0.01	0.01	0.06
VOC Emissions (kg)	0.01	0.03	0.01	0.02	0.07
Unserved Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

80: Beltline Rd & 8th St NW

Direction	EB	WB	SB	All
Future Volume (vph)	79	86	40	205
Control Delay / Veh (s/v)	1	0	9	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	1	0	9	2
Total Delay (hr)	0	0	0	0
Stops / Veh	0.27	0.00	1.00	0.30
Stops (#)	21	0	40	61
Average Speed (mph)	33	35	18	31
Total Travel Time (hr)	0	1	0	1
Distance Traveled (mi)	14	18	5	36
Fuel Consumed (gal)	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	19.4
CO Emissions (kg)	0.05	0.05	0.03	0.13
NOx Emissions (kg)	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.03
Unserved Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

95: 5th St NW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	103	132	14	45	294
Control Delay / Veh (s/v)	0	1	10	10	2
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	1	10	10	2
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.06	0.17	1.00	1.00	0.30
Stops (#)	6	22	14	45	87
Average Speed (mph)	30	29	23	19	27
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	27	20	4	7	57
Fuel Consumed (gal)	1	1	0	1	3
Fuel Economy (mpg)	23.5	NA	NA	NA	19.2
CO Emissions (kg)	0.08	0.07	0.02	0.04	0.21
NOx Emissions (kg)	0.02	0.01	0.00	0.01	0.04
VOC Emissions (kg)	0.02	0.02	0.00	0.01	0.05
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

96: 5th St NW & Beltline Rd

Direction	EB	WB	NB	SB	All
Future Volume (vph)	29	61	40	40	170
Control Delay / Veh (s/v)	2	0	9	9	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	9	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.34	0.02	1.00	1.00	0.54
Stops (#)	10	1	40	40	91
Average Speed (mph)	32	35	20	18	28
Total Travel Time (hr)	0	1	0	0	1
Distance Traveled (mi)	6	23	6	5	39
Fuel Consumed (gal)	0	1	1	0	2
Fuel Economy (mpg)	NA	NA	NA	NA	17.7
CO Emissions (kg)	0.02	0.06	0.04	0.03	0.16
NOx Emissions (kg)	0.00	0.01	0.01	0.01	0.03
VOC Emissions (kg)	0.01	0.01	0.01	0.01	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

101: 1st Ave E & Beltline Rd

Direction	EB	WB	SB	All
Future Volume (vph)	156	100	84	340
Control Delay / Veh (s/v)	2	0	10	3
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	2	0	10	3
Total Delay (hr)	0	0	0	0
Stops / Veh	0.43	0.00	1.00	0.44
Stops (#)	67	0	84	151
Average Speed (mph)	29	30	23	28
Total Travel Time (hr)	3	1	1	4
Distance Traveled (mi)	75	26	15	115
Fuel Consumed (gal)	4	1	1	6
Fuel Economy (mpg)	21.3	24.3	10.9	19.4
CO Emissions (kg)	0.25	0.07	0.10	0.41
NOx Emissions (kg)	0.05	0.01	0.02	0.08
VOC Emissions (kg)	0.06	0.02	0.02	0.10
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

102: 3rd St SW & 3rd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	16	121	142	44	323
Control Delay / Veh (s/v)	10	11	0	2	5
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	10	11	0	2	5
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	0.05	0.39	0.50
Stops (#)	16	121	7	17	161
Average Speed (mph)	23	24	30	26	27
Total Travel Time (hr)	0	2	3	0	5
Distance Traveled (mi)	4	42	81	5	133
Fuel Consumed (gal)	0	3	3	0	7
Fuel Economy (mpg)	NA	15.8	24.0	NA	19.9
CO Emissions (kg)	0.02	0.19	0.24	0.02	0.47
NOx Emissions (kg)	0.00	0.04	0.05	0.00	0.09
VOC Emissions (kg)	0.00	0.04	0.05	0.01	0.11
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

103: 3rd St SW & 12th Ave SW

Direction	EB	NB	SB	All
Future Volume (vph)	122	117	103	342
Control Delay / Veh (s/v)	11	2	0	4
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	2	0	4
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.41	0.00	0.50
Stops (#)	122	48	0	170
Average Speed (mph)	21	18	30	26
Total Travel Time (hr)	1	0	2	3
Distance Traveled (mi)	27	3	59	89
Fuel Consumed (gal)	2	0	2	5
Fuel Economy (mpg)	13.2	NA	24.3	18.1
CO Emissions (kg)	0.14	0.03	0.17	0.34
NOx Emissions (kg)	0.03	0.01	0.03	0.07
VOC Emissions (kg)	0.03	0.01	0.04	0.08
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

104: 3rd St SW & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	114	98	73	2	287
Control Delay / Veh (s/v)	0	2	10	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	2	10	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.00	0.36	1.00	1.00	0.38
Stops (#)	0	35	73	2	110
Average Speed (mph)	30	28	18	8	26
Total Travel Time (hr)	1	1	0	0	2
Distance Traveled (mi)	17	22	9	0	48
Fuel Consumed (gal)	1	1	1	0	3
Fuel Economy (mpg)	NA	19.4	NA	NA	17.3
CO Emissions (kg)	0.05	0.08	0.06	0.00	0.19
NOx Emissions (kg)	0.01	0.02	0.01	0.00	0.04
VOC Emissions (kg)	0.01	0.02	0.01	0.00	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

106: 7th St SW & 12th Ave SW

Direction	EB	WB	NB	SB	All
Future Volume (vph)	35	58	4	43	140
Control Delay / Veh (s/v)	2	0	8	9	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	8	9	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.31	0.00	1.00	1.00	0.41
Stops (#)	11	0	4	43	58
Average Speed (mph)	29	30	23	26	28
Total Travel Time (hr)	1	0	0	1	2
Distance Traveled (mi)	18	13	1	20	51
Fuel Consumed (gal)	1	1	0	1	3
Fuel Economy (mpg)	NA	NA	NA	17.5	20.3
CO Emissions (kg)	0.06	0.04	0.00	0.08	0.18
NOx Emissions (kg)	0.01	0.01	0.00	0.02	0.03
VOC Emissions (kg)	0.01	0.01	0.00	0.02	0.04
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

111: 330th Ave

Direction	WB	NB	SB	All
Future Volume (vph)	15	149	140	304
Control Delay / Veh (s/v)	10	1	0	1
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	1	0	1
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.17	0.00	0.13
Stops (#)	15	25	0	40
Average Speed (mph)	51	29	30	34
Total Travel Time (hr)	1	1	1	3
Distance Traveled (mi)	28	23	36	87
Fuel Consumed (gal)	1	1	1	4
Fuel Economy (mpg)	22.2	20.7	24.3	22.6
CO Emissions (kg)	0.09	0.08	0.10	0.27
NOx Emissions (kg)	0.02	0.01	0.02	0.05
VOC Emissions (kg)	0.02	0.02	0.02	0.06
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

114: 330th Ave & 12th Ave SW

Direction	WB	NB	SB	All
Future Volume (vph)	61	189	98	348
Control Delay / Veh (s/v)	11	0	2	2
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	11	0	2	2
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.32	0.26
Stops (#)	61	0	31	92
Average Speed (mph)	26	30	29	29
Total Travel Time (hr)	1	2	2	5
Distance Traveled (mi)	31	49	59	139
Fuel Consumed (gal)	2	2	3	6
Fuel Economy (mpg)	17.8	24.3	22.4	21.7
CO Emissions (kg)	0.12	0.14	0.18	0.45
NOx Emissions (kg)	0.02	0.03	0.04	0.09
VOC Emissions (kg)	0.03	0.03	0.04	0.10
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

118: 330th Ave

Direction	EB	NB	SB	All
Future Volume (vph)	148	14	48	210
Control Delay / Veh (s/v)	10	0	1	7
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	1	7
Total Delay (hr)	0	0	0	0
Stops / Veh	1.00	0.00	0.13	0.73
Stops (#)	148	0	6	154
Average Speed (mph)	13	30	29	18
Total Travel Time (hr)	1	0	0	1
Distance Traveled (mi)	10	2	7	19
Fuel Consumed (gal)	2	0	0	2
Fuel Economy (mpg)	6.3	NA	NA	9.7
CO Emissions (kg)	0.11	0.01	0.02	0.14
NOx Emissions (kg)	0.02	0.00	0.00	0.03
VOC Emissions (kg)	0.02	0.00	0.01	0.03
Unserviced Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

124: 4th St SE & 2nd Ave SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	18	85	28	18	149
Control Delay / Veh (s/v)	2	0	9	10	3
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	2	0	9	10	3
Total Delay (hr)	0	0	0	0	0
Stops / Veh	0.39	0.01	1.00	1.00	0.36
Stops (#)	7	1	28	18	54
Average Speed (mph)	20	30	13	13	23
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	1	11	2	1	14
Fuel Consumed (gal)	0	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	NA
CO Emissions (kg)	0.00	0.03	0.02	0.01	0.07
NOx Emissions (kg)	0.00	0.01	0.00	0.00	0.01
VOC Emissions (kg)	0.00	0.01	0.00	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

125: 4th St SE & 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	54	18	36	22	130
Control Delay / Veh (s/v)	7	7	7	7	7
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	7	7	7	7	7
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	54	18	36	22	130
Average Speed (mph)	20	20	15	10	18
Total Travel Time (hr)	0	0	0	0	1
Distance Traveled (mi)	7	2	2	1	12
Fuel Consumed (gal)	1	0	0	0	1
Fuel Economy (mpg)	NA	NA	NA	NA	8.5
CO Emissions (kg)	0.05	0.02	0.02	0.01	0.10
NOx Emissions (kg)	0.01	0.00	0.00	0.00	0.02
VOC Emissions (kg)	0.01	0.00	0.01	0.00	0.02
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

126: 3rd Ave SE & 4th St SE

Direction	EB	WB	NB	SB	All
Future Volume (vph)	115	6	86	19	226
Control Delay / Veh (s/v)	8	7	8	7	8
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	8	7	8	7	8
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	115	6	86	19	226
Average Speed (mph)	25	14	26	15	25
Total Travel Time (hr)	2	0	1	0	3
Distance Traveled (mi)	40	0	38	1	79
Fuel Consumed (gal)	2	0	2	0	5
Fuel Economy (mpg)	16.3	NA	17.4	NA	16.3
CO Emissions (kg)	0.17	0.00	0.15	0.01	0.34
NOx Emissions (kg)	0.03	0.00	0.03	0.00	0.07
VOC Emissions (kg)	0.04	0.00	0.03	0.00	0.08
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

145: 1st Ave E

Direction	EB	WB	NB	SB	All
Future Volume (vph)	84	147	142	104	477
Control Delay / Veh (s/v)	0	0	0	0	0
Queue Delay / Veh (s/v)	0	0	0	0	0
Total Delay / Veh (s/v)	0	0	0	0	0
Total Delay (hr)	0	0	0	0	0
Stops / Veh	1.00	1.00	1.00	1.00	1.00
Stops (#)	84	147	142	104	477
Average Speed (mph)	30	30	30	30	30
Total Travel Time (hr)	0	2	3	1	6
Distance Traveled (mi)	3	70	85	19	177
Fuel Consumed (gal)	1	4	4	1	10
Fuel Economy (mpg)	NA	19.0	19.8	13.8	17.8
CO Emissions (kg)	0.04	0.26	0.30	0.09	0.69
NOx Emissions (kg)	0.01	0.05	0.06	0.02	0.13
VOC Emissions (kg)	0.01	0.06	0.07	0.02	0.16
Unserviced Vehicles (#)	0	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0	0

167: 3rd St SW

Direction	WB	NB	SB	All
Future Volume (vph)	258	13	59	330
Control Delay / Veh (s/v)	10	0	2	8
Queue Delay / Veh (s/v)	0	0	0	0
Total Delay / Veh (s/v)	10	0	2	8
Total Delay (hr)	1	0	0	1
Stops / Veh	1.00	0.00	0.37	0.85
Stops (#)	258	0	22	280
Average Speed (mph)	27	30	19	27
Total Travel Time (hr)	6	0	0	6
Distance Traveled (mi)	160	2	2	164
Fuel Consumed (gal)	9	0	0	9
Fuel Economy (mpg)	18.8	NA	NA	18.6
CO Emissions (kg)	0.60	0.01	0.01	0.62
NOx Emissions (kg)	0.12	0.00	0.00	0.12
VOC Emissions (kg)	0.14	0.00	0.00	0.14
Unservd Vehicles (#)	0	0	0	0
Vehicles in dilemma zone (#)	0	0	0	0

Network Totals

Number of Intersections	35
Control Delay / Veh (s/v)	5
Queue Delay / Veh (s/v)	0
Total Delay / Veh (s/v)	5
Total Delay (hr)	19
Stops / Veh	0.48
Stops (#)	6485
Average Speed (mph)	27
Total Travel Time (hr)	124
Distance Traveled (mi)	3296
Fuel Consumed (gal)	184
Fuel Economy (mpg)	17.9
CO Emissions (kg)	12.84
NOx Emissions (kg)	2.50
VOC Emissions (kg)	2.98
Unservd Vehicles (#)	0
Vehicles in dilemma zone (#)	0
Performance Index	37.1

ATTACHMENT C

Crash Data



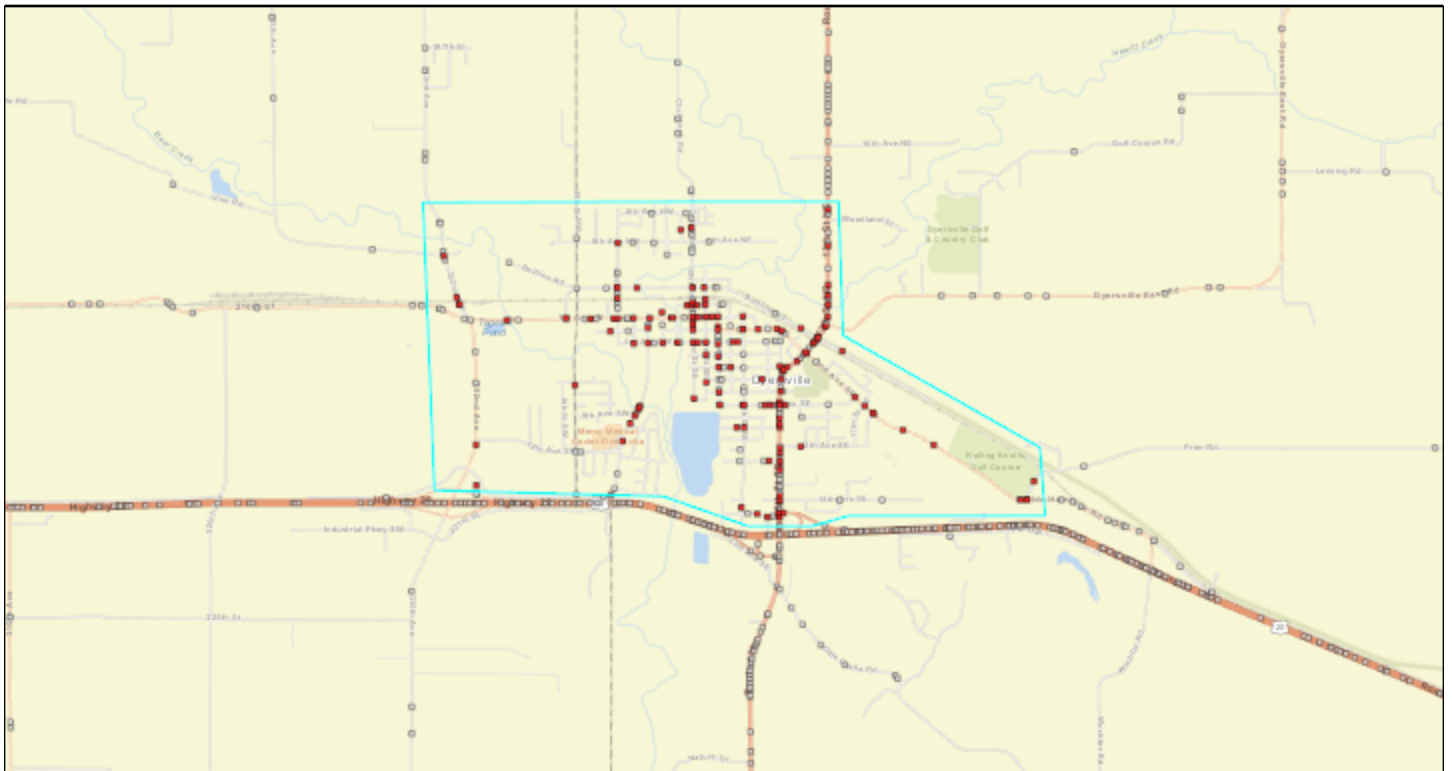
Iowa Crash Analysis Tool
Crash Characteristics
2015-2020

Crash Severity	186
Fatal Crash	0
Suspected Serious Injury Crash	2
Suspected Minor Injury Crash	11
Possible/Unknown Injury Crash	25
Property Damage Only	148

Injury Status Summary	46
Fatalities	0
Suspected serious/incapacitating	2
Suspected minor/non-incapacitating	12
Possible (complaint of pain/injury)	30
Unknown	2

Property/Vehicles/Occupants	
Property Damage Total (dollars):	1,074,088.00
Average (per crash dollars):	5,774.67
Total Vehicles:	332.00
Average (per crash):	1.78
Total Occupants:	395.00
Average (per crash):	2.15

Average Severity	
Fatalities/Fatal Crash:	0.00
Fatalities/Crash:	0.00
Injuries/Crash:	0.24
Major Injuries/Crash:	0.01
Minor Injuries/Crash:	0.06
Possible/Unknown Injuries/Crash:	0.16





**Iowa Crash Analysis Tool
Crash Characteristics
2015-2020**

Time of Day/Day of Week														
Day of Week	12 AM to 2 AM	2 AM to 4 AM	4 AM to 6 AM	6 AM to 8 AM	8 AM to 10 AM	10 AM to Noon	Noon to 2 PM	2 PM to 4 PM	4 PM to 6 PM	6 PM to 8 PM	8 PM to 10 PM	10 PM to 12 AM	Not reported	Total
Sunday	0	0	0	1	2	1	2	2	2	2	2	0	0	14
Monday	0	0	2	7	7	4	3	3	6	1	0	0	0	33
Tuesday	1	0	1	3	2	6	3	2	6	3	1	1	0	29
Wednesday	0	0	3	5	2	2	2	2	3	3	2	0	0	24
Thursday	0	0	1	5	2	4	6	7	5	2	1	1	0	34
Friday	0	2	0	1	2	3	7	6	9	1	3	0	0	34
Saturday	1	0	0	2	4	2	1	3	2	1	0	2	0	18
Total	2	2	7	24	21	22	24	25	33	13	9	4	0	186

Month	186
January	18
February	10
March	14
April	13
May	14
June	17
July	20
August	10
September	16
October	19
November	21
December	14
Not reported	0

Lighting	186
Daylight	138
Darkness	40
Morning Twilight (dawn 30 minutes after sunri...	3
Evening Twilight (dusk 30 minutes before suns...	5
Unknown	0

Weather Conditions	186
Clear	113
Cloudy	27
Fog, smoke, smog	0
Freezing rain/drizzle	5
Rain	15
Sleet, hail	1
Snow	10
Blowing snow	2
Severe winds	0
Blowing sand, soil, dirt	1
Not reported	10
Other	0
Unknown	2

Contributing Circumstance - Environment	186
None apparent	155
Weather conditions	11
Visual obstruction	1
Non-motorist action	0
Glare	4
Animal in roadway	2
Severe crosswind	1
Not reported	7
Other	2
Unknown	3

Light Condition	186
Daylight	128
Dusk	4
Dawn	8
Dark - roadway lighted	24
Dark - roadway not lighted	11
Dark - unknown roadway lighting	1
Unknown	0
Not reported	10

Surface Conditions	186
Dry	131
Wet	26
Ice/frost	4
Snow	11
Slush	3
Mud, dirt	0
Water (standing or moving)	0
Sand	0
Oil	0
Gravel	0
Not reported	10
Other	0
Unknown	1



Iowa Crash Analysis Tool
Crash Characteristics
2015-2020

Major Cause		182
Animal	15 Ran traffic signal	5
Ran stop sign	11 Failed to yield to emergency vehicle	1
FTYROW: At uncontrolled intersection	0 FTYROW: Making right turn on red signal	1
FTYROW: From stop sign	24 FTYROW: From yield sign	0
FTYROW: Making left turn	9 FTYROW: From driveway	2
FTYROW: From parked position	4 FTYROW: To pedestrian	2
FTYROW: Other	1 Drove around RR grade crossing gates	0
Disregarded RR Signal	1 Crossed centerline (undivided)	1
Crossed median (divided)	1 Traveling wrong way or on wrong side of road	0
Aggressive driving/road rage	0 Driving too fast for conditions	6
Exceeded authorized speed	1 Improper or erratic lane changing	0
Operating vehicle in an reckless, erratic, ca...	2 Followed too close	18
Passing: On wrong side	0 Passing: Where prohibited by signs/markings	0
Passing: With insufficient distance/inadequa...	0 Passing: Through/around barrier	0
Passing: Other passing	1 Made improper turn	7
Driver Distraction: Manual operation of an e...	1 Driver Distraction: Talking on a hand-held d...	0
Driver Distraction: Talking on a hands free ...	0 Driver Distraction: Adjusting devices (radio...	1
Driver Distraction: Other electronic device ...	2 Driver Distraction: Passenger	0
Driver Distraction: Unrestrained animal	0 Driver Distraction: Reaching for object(s)/f...	1
Driver Distraction: Inattentive/lost in thou...	3 Driver Distraction: Other interior distracti...	2
Driver Distraction: Exterior distraction	3 Ran off road - right	5
Ran off road - straight	0 Ran off road - left	3
Lost control	7 Swerving/Evasive Action	2
Over correcting/over steering	0 Failed to keep in proper lane	0
Failure to signal intentions	0 Traveling on prohibited traffic way	0
Vehicle stopped on railroad tracks	0 Other: Vision obstructed	1
Other: Improper operation	0 Other: Disregarded warning sign	0
Other: Disregarded signs/road markings	0 Other: Illegal off-road driving	0
Downhill runaway	0 Separation of units	0
Towing improperly	0 Cargo/equipment loss or shift	0
Equipment failure	0 Oversized load/vehicle	1
Other: Getting off/out of vehicle	0 Failure to dim lights/have lights on	0
Improper backing	3 Improper starting	0
Illegally parked/unattended	1 Driving less than the posted speed limit	0
Operator inexperience	1 Other	17
Unknown	8 Not reported	0
Other: No improper action	7	



**Iowa Crash Analysis Tool
Crash Characteristics
2015-2020**

Manner of Crash Collision	186	Location of First Harmful Event	186
Non-collision (single vehicle)	43	On roadway	147
Head-on (front to front)	2	Shoulder	9
Rear-end (front to rear)	40	Median	0
Angle, oncoming left turn	14	Roadside	9
Broadside (front to side)	46	Gore	0
Sideswipe, same direction	12	Outside trafficway	8
Sideswipe, opposite direction	4	In parking lane/zone	8
Rear to rear	1	Continuous left turn lane	0
Rear to side	12	Separator	0
Not reported	7	Not reported	0
Other	3	Other	0
Unknown	2	Unknown	5

Event Summary - Non-Collision							Total Vehicles: 332
Sequence							
First Harmful	Most Harmful	1st	2nd	3rd	4th		
0	2	0	1	1	1	Overturn/rollover	
0	0	0	0	0	0	Jackknife	
0	0	0	0	0	0	Non-contact vehicle (phantom)	
0	0	0	0	0	0	Vehicle went airborne	
0	0	0	0	0	0	Fell/jumped from vehicle	



Iowa Crash Analysis Tool
Crash Characteristics
2015-2020

Event Summary - Collision With							Total Vehicles: 332
First Harmful	Most Harmful	Sequence					
		1st	2nd	3rd	4th		
0	0	0	0	0	0	0	Thrown or falling object
14	9	10	0	0	0	0	Animal
3	3	2	2	0	0	0	Non-motorist (see non-motorist section - NOT ...
109	204	217	20	7	5	5	Vehicle in traffic
7	9	14	2	1	0	0	Re-entering roadway
16	28	27	13	4	1	1	Parked motor vehicle
0	0	0	0	0	0	0	Work zone maintenance equipment
0	0	0	0	0	0	0	Railway vehicle/train
1	8	1	6	1	0	0	Struck/struck by object/cargo/person from oth...
2	2	2	0	0	0	0	Other non-fixed object

Event Summary - Collision With Fixed Object							Total Vehicles: 332
First Harmful	Most Harmful	Sequence					
		1st	2nd	3rd	4th		
0	0	0	0	0	0	0	Bridge overhead structure
0	0	0	0	0	0	0	Bridge pier or support
1	1	0	1	0	0	0	Bridge/bridge rail parapet
1	0	0	1	0	0	0	Curb/island/raised median
10	6	1	5	2	1	1	Ditch
1	2	0	1	1	1	1	Embankment
0	0	0	0	0	0	0	Ground
0	1	0	0	0	0	1	Culvert/pipe opening
0	1	0	1	0	0	0	Guardrail - face
0	0	0	0	0	0	0	Guardrail - end
0	0	0	0	0	0	0	Concrete traffic barrier (median or right sid...
0	0	0	0	0	0	0	Other traffic barrier
0	0	0	0	0	0	0	Cable barrier
0	0	0	0	0	0	0	Impact attenuator/crash cushion
5	5	5	0	0	0	0	Utility pole/light support
1	1	0	3	0	0	0	Traffic sign support
1	1	1	1	0	0	0	Traffic signal support
2	2	1	1	0	0	0	Other post/pole/support
0	0	0	0	0	0	0	Fire hydrant
0	0	0	0	0	0	0	Mailbox
3	5	1	2	2	0	0	Tree
0	0	0	0	0	0	0	Landscape/shrubbery
0	0	0	0	0	0	0	Snow bank
0	0	0	0	0	0	0	Fence
1	1	1	0	0	0	0	Wall
0	0	0	0	0	0	0	Building
0	0	0	0	0	0	0	Other fixed object



**Iowa Crash Analysis Tool
Crash Characteristics
2015-2020**

Event Summary - Miscellaneous Events	Total Vehicles: 332

Sequence							
First Harmful	Most Harmful	1st	2nd	3rd	4th		
0	0	0	0	0	0	0	Fire/explosion
0	0	0	0	0	0	0	Immersion
3	7	3	6	2	1	1	Hit and run
0	0	0	0	0	0	0	Eluding law enforcement
0	0	0	0	0	0	0	Gas inhalation/asphyxiation
1	1	1	0	0	0	0	Vehicle out of gear/rolled

Fixed Object Struck	332

Bridge overhead structure	0	Bridge pier or support	0
Bridge/bridge rail parapet	1	Curb/island/raised median	0
Ditch	7	Embankment	2
Ground	0	Culvert/pipe opening	1
Guardrail - face	1	Guardrail - end	0
Concrete traffic barrier (median or right sid...	0	Other traffic barrier	0
Cable barrier	0	Impact attenuator/crash cushion	0
Utility pole/light support	5	Traffic sign support	1
Traffic signal support	1	Other post/pole/support	2
Fire hydrant	0	Mailbox	0
Tree	5	Landscape/shrubbery	0
Snow bank	0	Fence	0
Wall	1	Building	0
Other fixed object	0	None (no fixed object struck)	305

Drug/Alcohol Related	186	Non-Motorist Type	6
Drug	0	Pedestrian	4
Alcohol (< Statutory)	0	Pedalcyclist (bicycle/tricycle/unicycle/pedal...	2
Alcohol (Statutory)	2	Pedalcycle passenger	0
Drug/Alcohol (< Statutory)	0	In or on building	0
Drug/Alcohol (Statutory)	0	Horse and buggy	0
Refused	0	Skater, personal conveyance, wheelchair	0
Under Influence of Alcohol/Drugs/Medications	2	Not reported	0
None Indicated	182	Other non-motorist	0
		Unknown	0



Iowa Crash Analysis Tool
Crash Characteristics
2015-2020

Road Classification	186
Interstate	0
US Route	12
Iowa Route	52
Secondary Road	11
Municipal Road	111
Institutional Road	0
Other	0
Unknown	0

Work Zone Type	0
Lane closure	0
Lane switch/crossover	0
Work on shoulder or median	0
Intermittent or moving work	0
Not reported	0
Other	0
Unknown	0

Work Zone Location	0
Before work zone warning sign	0
Advance warning area	0
Transition area	0
Within or adjacent to work activity	0
Termination area	0
Not reported	0
Other	0
Unknown	0

Work Zone Activity	0
Construction	0
Maintenance	0
Utility	0
Not reported	0
Other	0
Unknown	0

Workers Present	0
Workers only	0
No workers present	0
Workers and officer present	0
Law enforcement only	0
No one present	0
Not reported	0
Other	0
Unknown	0

Intersection Classification	186
Interstate - Interstate	0
Interstate - US Route	0
Interstate - IA Route	0
Interstate - Secondary	0
Interstate - Municipal	0
Interstate - Institutions	0
US Route - US Route	0
US Route - IA Route	11
US Route - Secondary	0
US Route - Municipal	0
US Route - Institutions	0
IA Route - IA Route	0
IA Route - Secondary	0
IA Route - Municipal	30
IA Route - Institutions	0
Secondary - Secondary	5
Secondary - Municipal	0
Secondary - Institutions	0
Municipal - Municipal	50
Municipal - Institutions	0
Institutions - Institutions	0
Not Indicated as an Intersection	90
Unlocated or Unknown	0

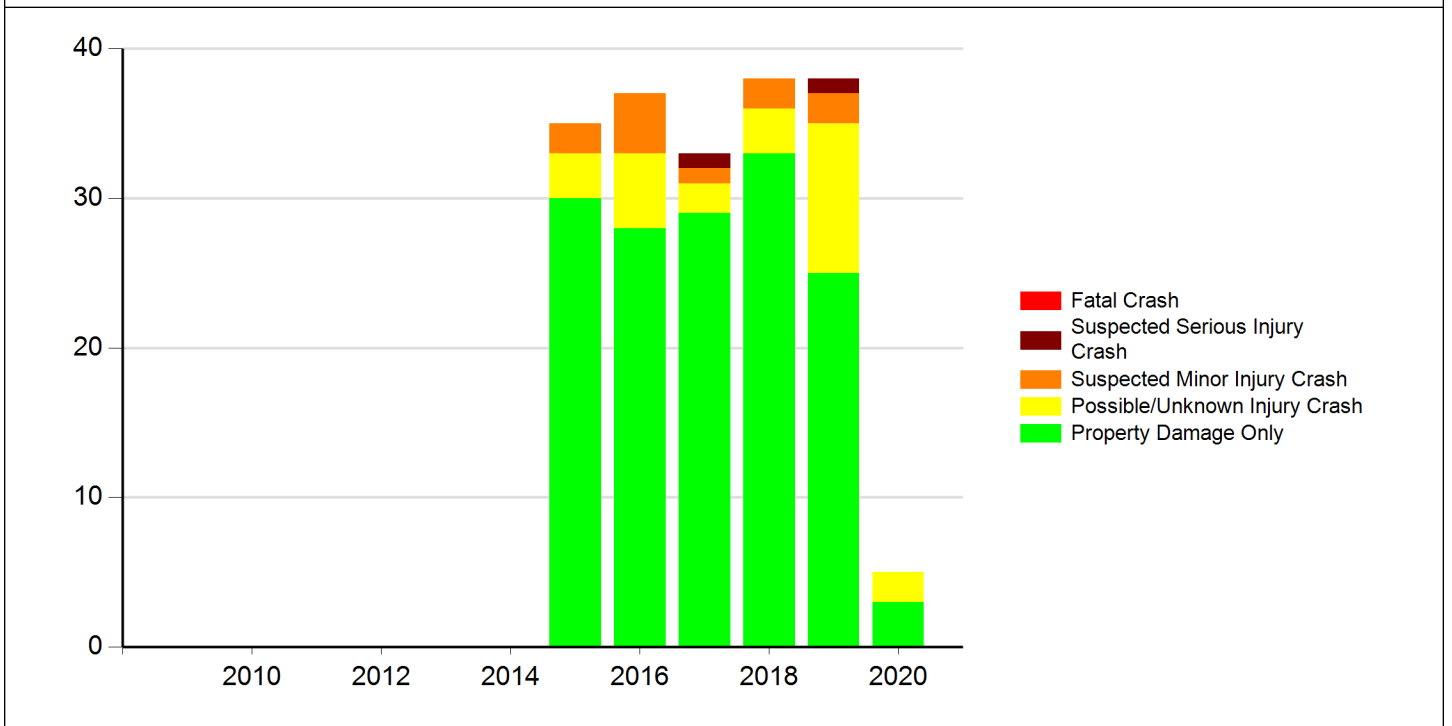
Contributing Circumstance - Road	186
None apparent	161
Surface condition (e.g., wet, icy)	13
Debris	0
Ruts/holes/bumps	0
Work Zone (roadway-related)	0
Slippery, loose, or worn surface	2
Obstruction in roadway	0
Traffic control obscured	0
Shoulders (none, low, soft, high)	0
Non-highway work	0
Traffic backup, prior crash	0
Traffic backup, regular congestion	0
Traffic backup, prior non-recurring incident	0
Disabled vehicle	0
Not reported	9
Other	0
Unknown	1

Work Zone Related	0
Yes	0
No	0
Unknown	0
Not reported	0

Crash Severity - Annual

Crash Year	Fatal Crash	Suspected Serious Injury Crash	Suspected Minor Injury Crash	Possible/Unknown Injury Crash	Property Damage Only	Total
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	2	3	30	35
2016	0	0	4	5	28	37
2017	0	1	1	2	29	33
2018	0	0	2	3	33	38
2019	0	1	2	10	25	38
2020	0	0	0	2	3	5
Total	0	2	11	25	148	186

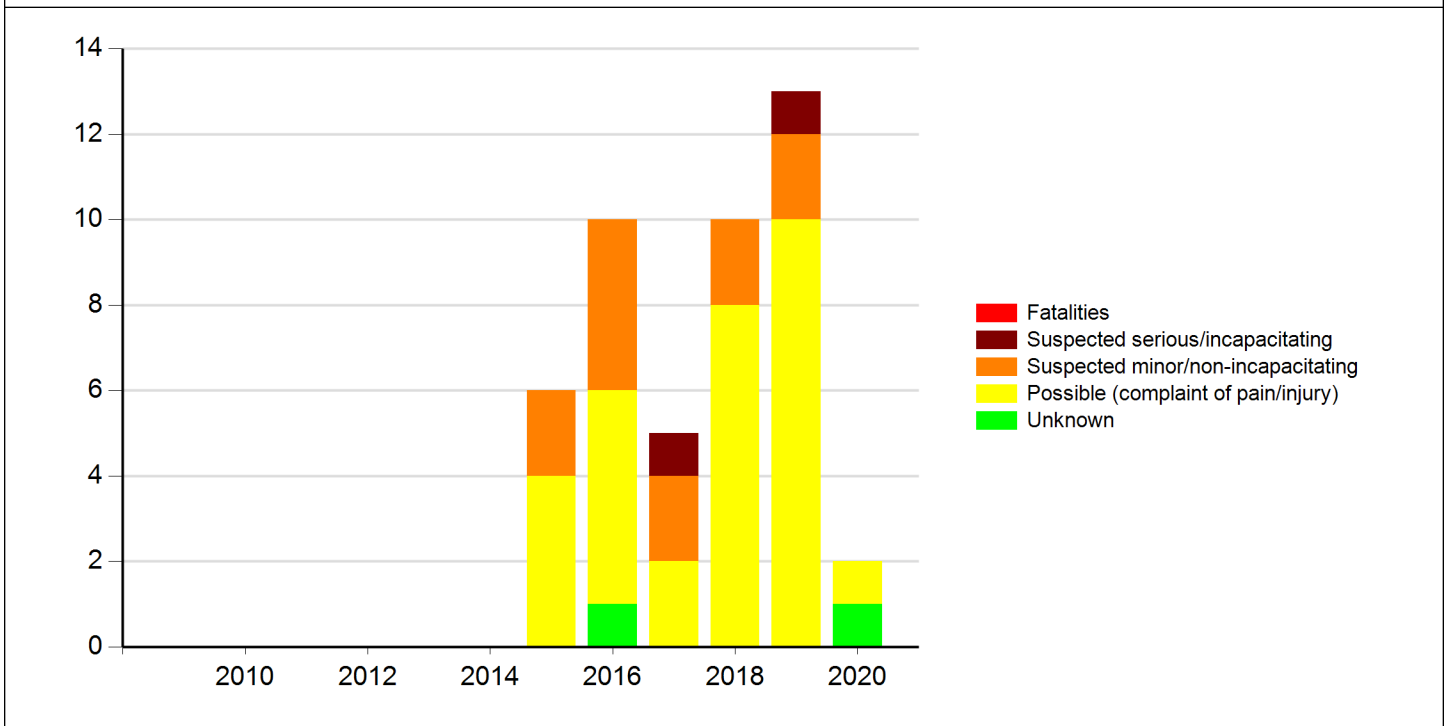
Severity/Year



Injury Status - Annual

Crash Year	Fatalities	Suspected serious/incapacitating	Suspected minor/non-incapacitating	Possible (complaint of pain/injury)	Unknown	Total
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
2013	0	0	0	0	0	0
2014	0	0	0	0	0	0
2015	0	0	2	4	0	6
2016	0	0	4	5	1	10
2017	0	1	2	2	0	5
2018	0	0	2	8	0	10
2019	0	1	2	10	0	13
2020	0	0	0	1	1	2
Total	0	2	12	30	2	46

Injury Status/Year





Iowa Crash Analysis Tool
Crash Characteristics
2015-2020

Meeting the following criteria

Jurisdiction: Statewide
Year: 2015, 2016, 2017, 2018, 2019, 2020
Map Selection: Yes
Filter: None

Analyst Information