Williams Crossing

Lacey, WA

Traffic Impact Analysis

September 13, 2023

09/13/2023

Prepared for:

Sage Homes Northwest, LLC
9505 19th Ave SE, Suite 118
Everett, WA 98208

Prepared by:

TENW

Transportation Engineering NorthWest

11400 SE 8th Street, Suite 200
Bellevue, WA 98004
(425) 889-6747

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EXECUTIVE SUMMARY

Project Proposal. The proposed Williams Crossing project is located east of Sleater Kinney Road NE on the north side of 15th Ave NE in the vicinity of Century Ct NE. The proposed project is expected to have a total of up to 262 multifamily residential units on a site that is currently undeveloped land. Primary vehicular access will be provided by one (1) full access driveway on 15th Ave NE aligned with Century Court NE. Additionally, a gated emergency only vehicle access will be provided to the east of the primary driveway on 15th Ave NE.

Trip Generation. The proposed project is estimated to generate 1,766 new weekday daily vehicular trips with 105 new trips (25 in, 80 out) occurring during the weekday AM peak hour and 134 new trips (84 in, 50 out) occurring during the weekday PM peak hour.

Level of Service. Based on scoping comments provided by the City of Lacey, City of Olympia, and Thurston County, future 2026 PM peak hour LOS analyses were conducted at four (4) off-site study intersections to determine traffic impacts of the project buildout. The City's adopted LOS standard is LOS D. The results of the LOS analyses indicate that all study intersections are anticipated to operate at LOS D or better during the weekday PM peak hour in 2026 with the proposed Williams Crossing project.

Site Access Analysis. The results of the LOS analyses indicate that all turning movements at the proposed stop-controlled driveway on 15th Ave NE that would provide access to the site are anticipated to operate at LOS C or better in 2026 with minimal queuing during the weekday PM peak hour.

Mitigation. The following measures have been identified to mitigate the transportation impacts of the proposed Williams Crossing project.

- Lacey Impact Fees. To mitigate impacts to City of Lacey roads, payment of a transportation mitigation cost is required. The mitigation cost calculation will be determined by the City of Lacey Transportation Department and based on the number of PM peak hour trips generated by the proposed project affecting the current City of Lacey TIP project list.

INTRODUCTION

This Traffic Impact Analysis (TIA) for the Williams Crossing project was prepared consistent with City of Lacey TIA guidelines. Section 4B.035 of the City of Lacey Development Guidelines and Public Works Standards, Chapter 4 – Transportation, identifies a standardized format for a TIA. A TIA is a specialized study of the impacts that a proposed development project will have on the transportation system.

The proposed Williams Crossing project is located east of Sleater Kinney Road NE on the north side of 15th Ave NE in the vicinity of Century Ct NE. The proposed project is expected to have a total of up to 262 multifamily residential units on a site that is currently undeveloped land. Primary vehicular access will be provided by one (1) full access driveway on 15th Ave NE aligned with Century Court NE. Additionally, a gated emergency only vehicle access will be provided to the east of the primary driveway on 15th Ave NE.

Traffic Scoping Report

The scope of work for this TIA was established based on the Traffic Scoping Memo (dated April 28, 2023) and comments received from the City of Lacey, City of Olympia, and Thurston County. Confirmation of scope was received in the City's Traffic Scoping Approval letter dated June 7, 2023.

A total of four (4) off-site study intersections were identified for evaluation during weekday PM peak hour conditions. The City Traffic Scoping Approval letter is provided in Appendix A.

Project Approach

To analyze the traffic impacts of the Williams Crossing project, the following tasks were undertaken consistent with City of Lacey TIA guidelines:

1. Prospectus
2. Existing Conditions
3. Development Traffic
4. Trip Generation
5. Trip Distribution
6. Future Traffic Conditions
7. Traffic Operations
8. Access Management
9. Traffic Calming
10. Alternate Modes of Transportation
11. Mitigation

Primary Data and Information Sources

- TENW Traffic Scoping Memo – dated April 28, 2023.
- City of Lacey Traffic Scoping Approval Letter – dated June 7, 2023.
- ITE *Trip Generation Manual*, 11th Edition, 2021.
- *Highway Capacity Manual*, 7th Edition, 2022.
- Year 2023 PM Peak Period Traffic Volumes, All Traffic Data
- City of Lacey 2030 Transportation Plan.
- City of Lacey 2023-2028 Six Year Transportation Improvement Program (TIP).
- Thurston County 2023-2026 Regional TIP.

TRAFFIC IMPACT ANALYSIS

1. Prospectus

a) The proposed Williams Crossing project is located east of Sleater Kinney Road NE on the north side of 15th Ave NE in the vicinity of Century Ct NE as shown in the Figure 1 project site vicinity map.

b) A preliminary site plan concept is provided in Appendix B. Buildout of the proposed project is anticipated to include two (2) new driveways on 15th Ave NE (the eastern most driveway will be gated for emergency vehicle access only).

c) The current project proposal includes up to 262 multifamily residential units on a site that is currently undeveloped land.

d) The horizon year for full buildout of the proposed project in this Traffic Impact Analysis is 2026.

2. Existing Conditions

a) The following describes existing transportation conditions in the study area, including an inventory of existing roads, existing traffic volumes, and public transportation services.

15th Ave NE is an east-west arterial with a posted speed limit of 25 mph in the study area. The road has 2 lanes in each direction and intermittent sidewalks on both sides of the road in the vicinity of the proposed project.

Sleater-Kinney Rd NE is a north-south arterial with a posted speed limit of 25 mph in the study area. The road has 4-5 lanes and includes curb, gutter, and sidewalks on both sides of the road in the vicinity of the proposed project.

b) Weekday PM peak hour trips from approved pipeline projects were provided by the City of Lacey in June 2023 and are included in this traffic analysis.

c) The layout and design of the proposed site driveways will take into consideration sight distance, crash potential, and pedestrian conflicts.

d) No existing weekday PM peak hour traffic counts were provided by the City of Lacey or surrounding jurisdictions. The existing traffic signal timing used in this analysis was provided by the City of Olympia.

e) Existing weekday PM peak hour traffic counts at each of the four (4) off-site study intersections were collected by All Traffic Data in June 2023. The traffic count data sheets are provided in Appendix C.

f) Figure 2 illustrates the 2023 existing PM peak hour turning movements at the four (4) off-site study intersections. The weekday PM peak hour traffic volumes represent the highest hourly volume of vehicles traveling through an intersection during a typical 4:00 to 6:00 p.m. peak period.

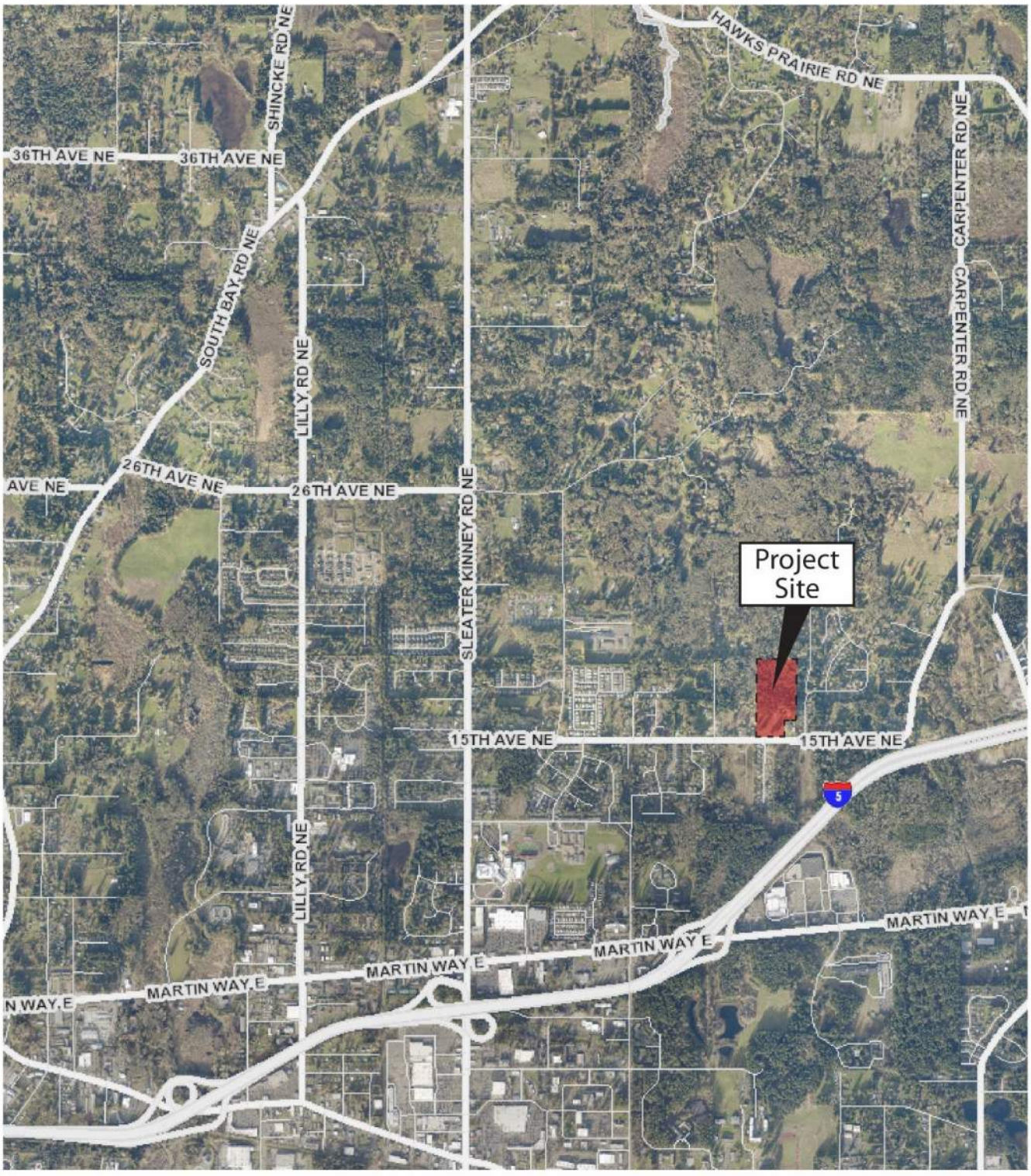
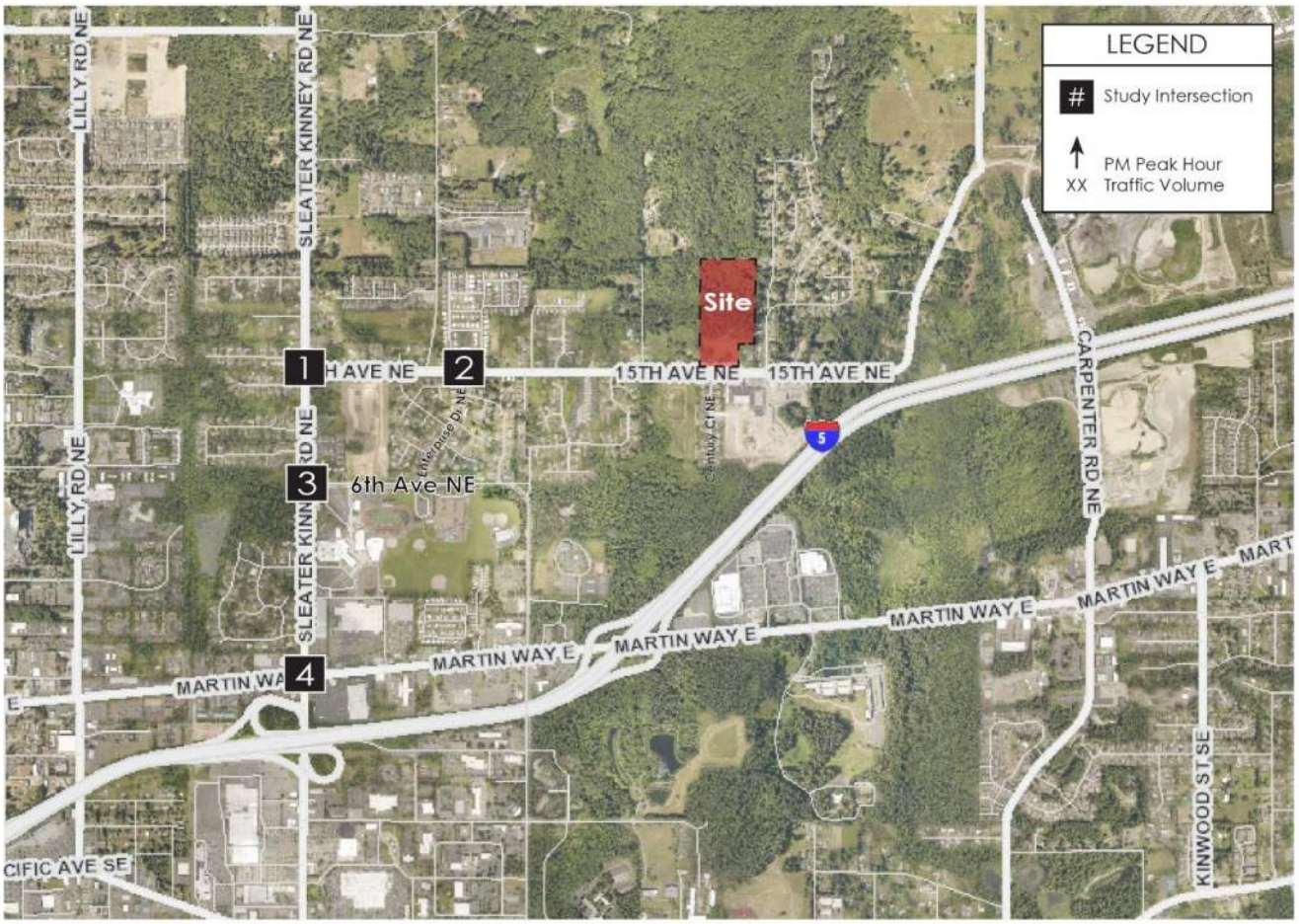
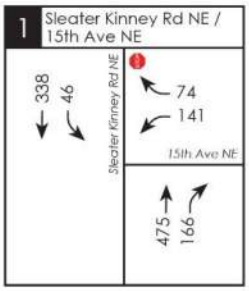
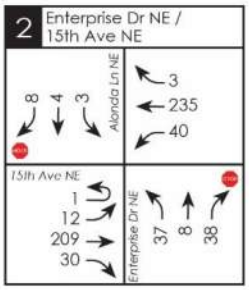
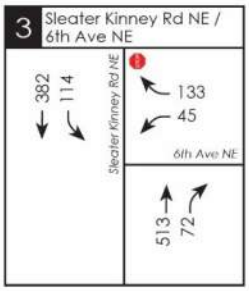


Figure 1: Project Site Vicinity









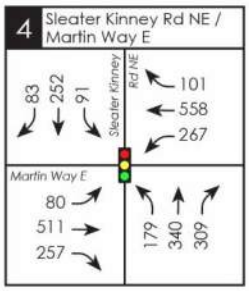


Figure 2: 2023 Existing Weekday PM Peak Hour Traffic Volumes

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NOT TO SCALE

3. Development Traffic

Based on scoping confirmed by the City of Lacey, City of Olympia, and Thurston County, the following four (4) off-site study intersections were identified for evaluation in this TIA. LOS at each intersection was evaluated during weekday PM peak hour conditions.

1. Sleater Kinney Rd NE/15th Ave NE — Stop-Controlled (Future Signal)
2. Enterprise Dr NE/15th Ave NE — Stop-Controlled
3. Sleater Kinney Rd NE/6th Ave NE — Stop-Controlled
4. Sleater Kinney Rd NE/Martin Way E — Signal

4. Project Trip Generation

The current project proposal includes a total of up to 262 multifamily residential units. The new weekday daily, AM and PM peak hour trip generation estimates for the Williams Crossing project were based on trip rates documented in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition for Land Use Code (LUC) 220 (Multifamily Housing (Low-Rise)). Table 1 summarizes the new trip generation estimates. Detailed trip generation calculations are provided in Appendix D.

Table 1
Trip Generation Summary

	New Trips Generated		
Time Period	In	Out	Total
Weekday Daily	883	883	1,766
Weekday AM Peak Hour	25	80	105
Weekday PM Peak Hour	84	50	134

5. Project Trip Distribution

The distribution of the Williams Crossing project trips during the weekday PM peak hour was based on traffic model distribution (TAZ 600) as provided by the City of Lacey (included in Appendix E). The weekday PM peak hour assignment of project trips with full project buildout of the proposed Williams Crossing project is shown at each of the study intersections and proposed site driveway in Figure 3.

6. Future Traffic Conditions

Future 2026 No Action (without project) weekday PM peak hour traffic volumes were estimated by applying a four (4) percent annual growth rate to existing PM peak hour traffic counts and including traffic from known pipeline project developments (i.e., the Bayan Trails project and others). The weekday PM peak hour traffic generated by pipeline project developments was provided by the City of Lacey. The future 2026 No Action (without project) weekday PM peak hour traffic volumes are illustrated in Figure 4. Adding the project-generated weekday PM peak hour trips (shown in Figure 3) to the future No Action traffic volumes (Figure 4), results in the future With Project traffic volumes, as shown in Figure 5.

Based on review of the City of Lacey 2030 *Transportation Plan*, City of Lacey *2023-2028 Six Year Transportation Improvement Program (TIP)*, and Thurston County *2023-2026 Regional TIP*, there are no City or County planned improvements in the immediate project vicinity. There are two (2) planned improvements in the project vicinity being constructed by other developments. The Bayan Trails project is constructing a 4th leg (new west leg) to the existing Sleater-Kinney Rd NE/6th Ave NE intersection. Additionally, a new traffic signal is being constructed at the Sleater-Kinney Rd NE/15th Ave NE intersection by another project.

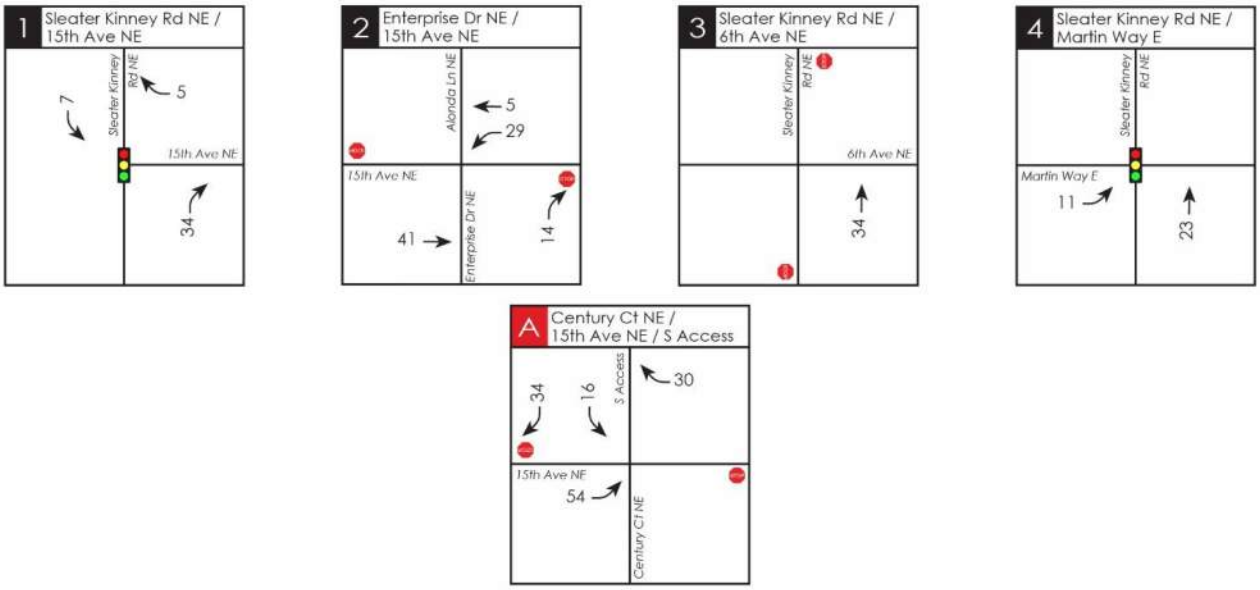
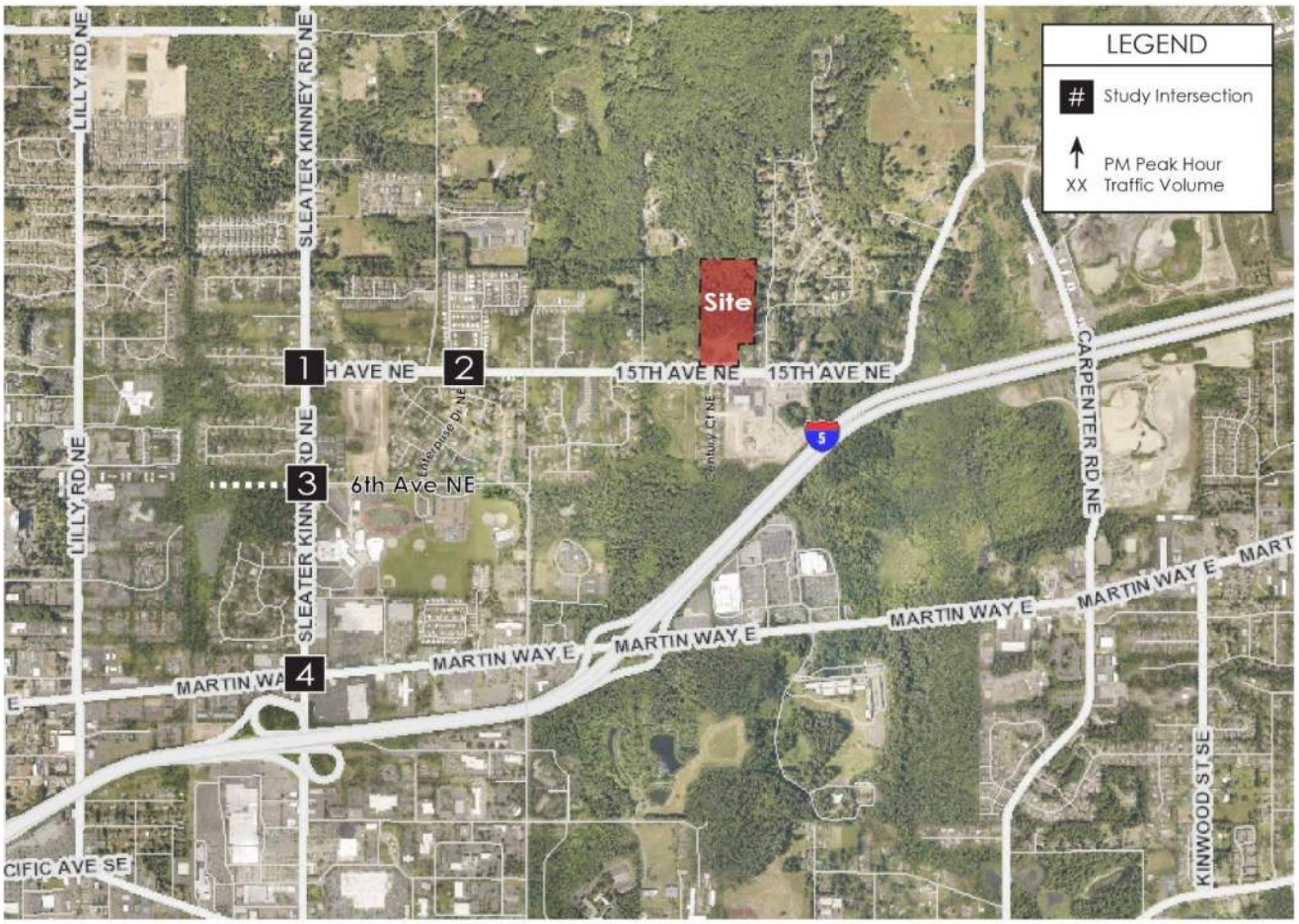
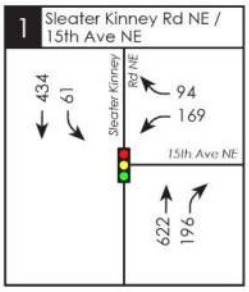
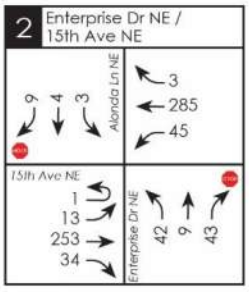
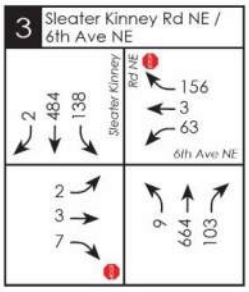


Figure 3: Weekday PM Peak Hour Project Trip Assignment









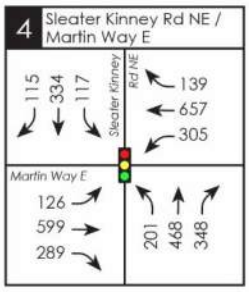


Figure 4: 2026 No Action Weekday PM Peak Hour Traffic Volumes

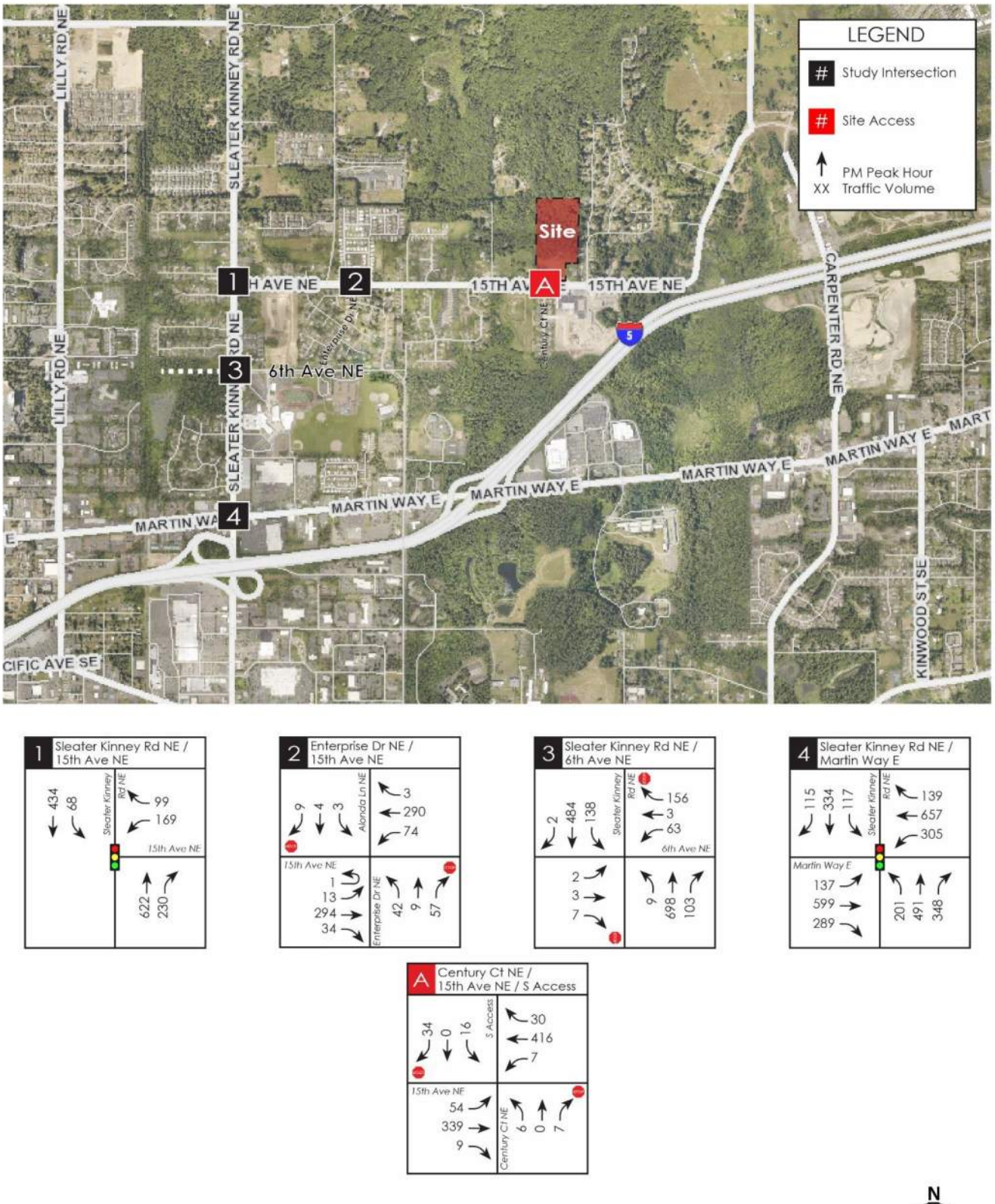


Figure 5: 2026 With Project Weekday PM Peak Hour Traffic Volumes

NOT TO SCALE

7. Traffic Operations with Project Buildout

Weekday PM peak hour level of service (LOS) analyses were conducted at the four (4) off-site study intersections for three scenarios: (1) 2023 existing, (2) 2026 No Action (without project), and (3) 2026 With Project.

Intersection LOS was calculated using the methodology and procedures outlined in the *Highway Capacity Manual* (HCM 7th Edition) using the *Synchro 12* software program. The LOS calculations at both the signalized and stop-controlled study intersections represent the weighted-average control delay of all movements at the intersection. The LOS methodology and detailed LOS calculation are included in Appendix F. The City of Lacey intersection LOS standard is LOS D.

Table 2 summarizes the 2023 existing and future 2026 intersection LOS without and with full buildout of the proposed Williams Crossing project. Note that there are two (2) planned improvements in the project vicinity being constructed by other developments. The Bayan Trails project is constructing a 4th leg (new west leg) to the existing Sleater Kinney Rd NE/6th Ave NE intersection. Additionally, a new traffic signal is being constructed at the Sleater Kinney Rd NE/15th Ave NE intersection by another project. Both of these improvements are reflected in the future 2026 analysis.

Table 2
Weekday PM Peak Hour LOS Summary

	2023 Existing		2026 No Action		2026 With Project	
Study Intersection	LOS[1]	Delay (sec)[1]	LOS[1]	Delay (sec)[1]	LOS[1]	Delay (sec)[1]
1. Sleater Kinney Rd NE/15th Ave NE[2]	A	7.9	B	11.9	B	12.0
2. Enterprise Dr NE/15th Ave NE	A	2.9	A	3.2	A	4.1
3. Sleater Kinney Rd NE/6th Ave NE	A	3.6	B	12.7	B	14.1
4. Sleater Kinney Rd NE/Martin Way E	C	33.9	D	46.4	D	46.7

1. LOS = Level of Service, reported as intersection average.
2. Stop-controlled under existing conditions. Signalized under future conditions.

The results of the LOS analyses shown in Table 3 indicate that all study intersections currently operate at LOS D or better and are anticipated to continue to operate at LOS D or better during the weekday PM peak hour in 2026 with full buildout of the proposed Williams Crossing project.

8. Access Management

Primary vehicular access will be provided by one (1) full access driveway on 15th Aven NE aligned with Century Ct NE. Additionally, a gated emergency only vehicle access will be provided to the east of the primary driveway on 15th Ave NE. Weekday PM peak hour LOS and queues were evaluated at the proposed full access driveway on 15th Ave NE. The estimated 2026 weekday PM peak hour traffic volumes at the site access were shown previously in Figure 5.

Table 3 summarizes the LOS and queue results at the site access locations for future 2026 with project conditions during the weekday PM peak hour.

Table 3
Site Access PM Peak Hour LOS and Queue Summary

Site Access Location (approach movement)	LOS	Delay (sec)	95th % Queue (ft)
Stop-Controlled:			
A. West Driveway/15th Ave NE			
Eastbound Left-Turn (entering trips)	A	8.6	< 25'
Southbound Approach (exiting trips)	C	16.2	25'

As shown in Table 3, the individual movements entering and exiting the site at the proposed primary site access driveway on 15th Ave NE are anticipated to operate at LOS C or better during the PM peak hour in 2026 with the proposed project. Additionally, 95th-percentile queues are estimated to be 25 feet or less at the proposed site access location.

9. Traffic Calming

City development guidelines require that internal traffic calming be incorporated into all developments to control cut-through traffic and reduce speed within the development. Because access to the proposed project is only via 15th Ave NE, cut-through traffic is not anticipated to be a concern within the proposed Williams Crossing project.

10. Alternate Modes of Transportation

The City of Lacey TIA guidelines encourages alternate modes of transportation. New developments are encouraged to implement Transportation Demand Management (TDM) practices. Sidewalks are proposed on the internal site roadways and currently exist on the south side of 15th Ave NE in the project vicinity. Additionally, the project will construct a new sidewalk on the north side of 15th Ave NE as part of their frontage improvements.

11. Mitigation

The following measures have been identified to mitigate the transportation impacts of the proposed Williams Crossing Project.

- Lacey Impact Fees. To mitigate impacts to City of Lacey roads, payment of a transportation mitigation cost is required. The mitigation cost calculation will be determined by the City of Lacey Transportation Department and based on the number of PM peak hour trips generated by the proposed project affecting the current City TIP project list.

Appendix A

City of Lacey Traffic Scoping Approval Letter (dated June 7, 2023)

Shaping our community together

CITY OF LACEY

June 7th, 2023

Spenser Haynie
TENW
11400 SE 8th Street #200
Bellevue, WA 98004

SUBJECT: Williams Crossing Traffic Scoping Approval

Dear Mr. Haynie,

I have reviewed the Traffic Scoping report submitted for this project and have determined there are transportation impacts that require a Traffic Impact Analysis. The methodology for completing a Traffic Impact Analysis is identified in Chapter 4 of the City of Lacey Development Guidelines and Public Works Standards, and mitigation and concurrency measures are identified in Lacey Municipal Code Chapter 14.21.

Please analyze these intersections in your report:

1. 15th Avenue NE & Enterprise Drive NE
2. Sleater Kinney Road NE & 15th Avenue NE
3. Sleater Kinney Road NE & 6th Avenue NE
4. Martin Way E & Sleater Kinney Road
5. 15th Avenue NE & Site Driveway

The above list includes intersections requested by the City of Olympia.

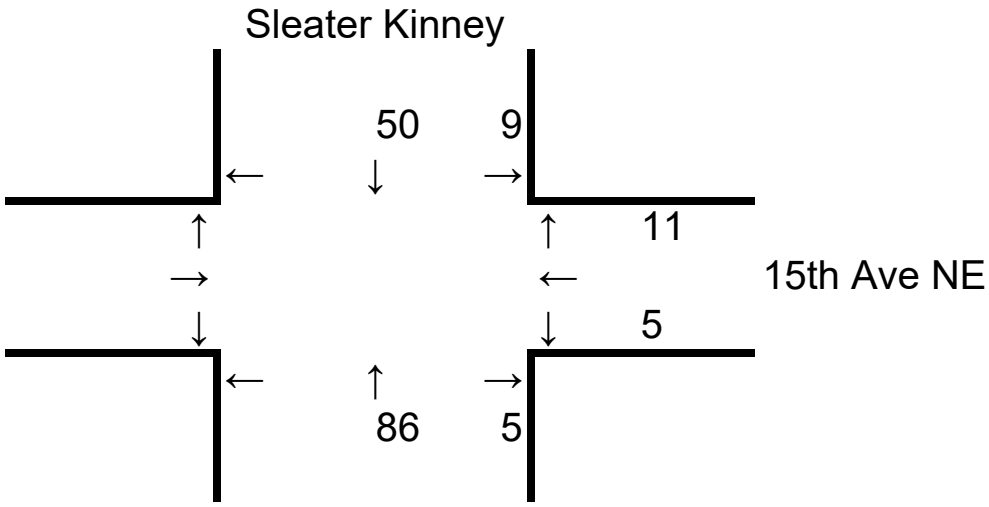
I will provide pipeline volumes for the study intersections. The Bayan Trails development should also be added to pipeline volumes.

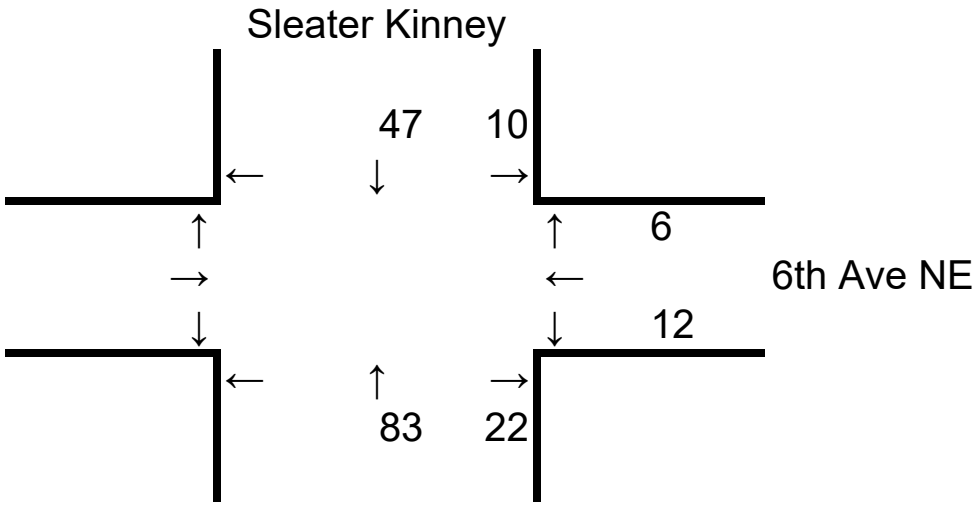
Please provide a signed and stamped Traffic Impact Analysis for distribution for the review necessary to evaluate this project. If you have any questions, do not hesitate to call me at (360) 438-2640.

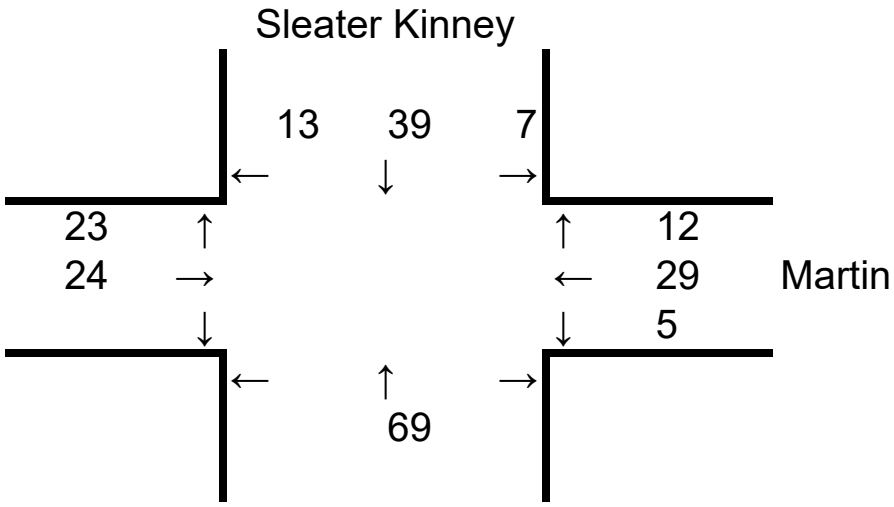
Sincerely,

Christopher Stolberg, EIT
Transportation Engineer

CC: Tom Stiles, Development Review Manager
File


Sleater Kinney
50
9
11
15th Ave NE
5
86
5


Sleater Kinney
47
10
6
6th Ave NE
12
83
22


Sleater Kinney
13
39
7
23
24
12
29
5
Martin
69

Appendix B

Preliminary Site Plan

PROJECT SUMMARY

SITE SUMMARY

DENSITY: 262 DU / 12 & 24 PLEX 3-STORY BUILDING

UNIT SUMMARY

PLAN	TYPE	COUNT	
A	1 BR / 1 BA @ 649 SF	66 UNITS	42,834 SF
B	2 BR / 1 BA @ 800 SF	160 UNITS	128,000 SF
C	2 BR / 2 BA @ 879 SF	36 UNITS	31,644 SF
		262 UNITS	202,478 SF

PARKING SUMMARY

PARKING REQUIRED:	433 SPACES
262 UNITS x 1.5 SPACES/UNIT =	393 SPACES
1 PER 10 SPACES (GUEST) =	40 SPACES
PARKING PROVIDED:	433 SPACES

LEGEND

3 STORY RESIDENTIAL BUILDING

SITE YIELD STUDY - 3 STORY FLATS

15TH AVENUE, LACEY PROPERTY

15TH AVE. NE, OLYMPIA, WA

scale: 1" = 40'-0"

0 40 80 120 160

N

SAGE HOMES®

APPLICANT:
SAGE HOMES
9505 19TH AVE. SE, SUITE 118 EVERETT, WA 98208

BSB DESIGN
970 West 190th Street Suite 250
Torrance, CA 90502
t. 310. 217. 8885 f. 310. 217. 0425

No. MR230267.00

August 07, 2023

SD-1.1

BSB DESIGN

Appendix C

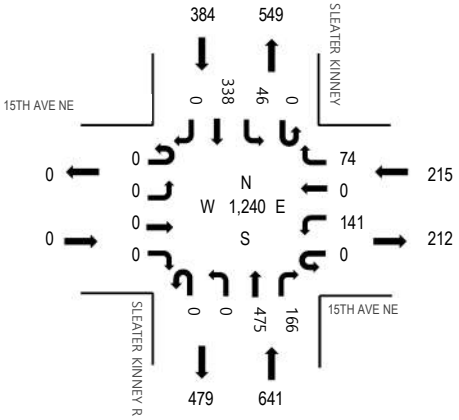
Existing PM Peak Hour Traffic Counts

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

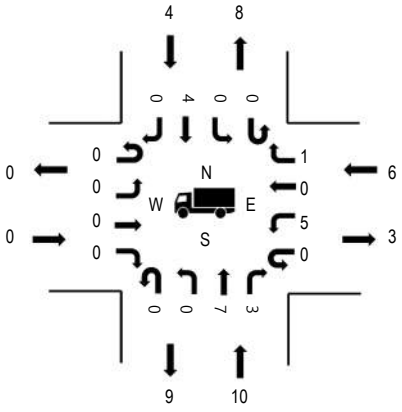
Location: 1 SLEATER KINNEY RD NE & 15TH AVE NE PM
Date: Monday, June 12, 2023
Peak Hour: 04:15 PM - 05:15 PM

Peak Hour

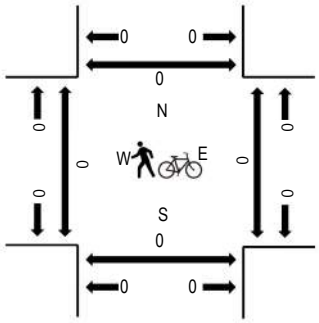
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.00
WB	2.8%	0.90
NB	1.6%	0.89
SB	1.0%	0.92
All	1.6%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	15TH AVE NE Eastbound				15TH AVE NE Westbound				SLEATER KINNEY RD NE Northbound				SLEATER KINNEY RD NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	53	0	20	0	0	98	48	0	10	77	0	306	1,210
4:15 PM	0	0	0	0	0	35	0	22	0	0	135	45	0	9	87	0	333	1,240
4:30 PM	0	0	0	0	0	39	0	21	0	0	97	39	0	16	76	0	288	1,186
4:45 PM	0	0	0	0	0	30	0	16	0	0	110	35	0	8	84	0	283	1,171
5:00 PM	0	0	0	0	0	37	0	15	0	0	133	47	0	13	91	0	336	1,103
5:15 PM	0	0	0	0	0	36	0	15	0	0	97	50	0	10	71	0	279	
5:30 PM	0	0	0	0	0	36	0	14	0	0	118	43	0	6	56	0	273	
5:45 PM	0	0	0	0	0	26	0	11	0	0	73	40	0	8	57	0	215	
Count Total	0	0	0	0	0	292	0	134	0	0	861	347	0	80	599	0	2,313	
Peak Hour	0	0	0	0	0	141	0	74	0	0	475	166	0	46	338	0	1,240	

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

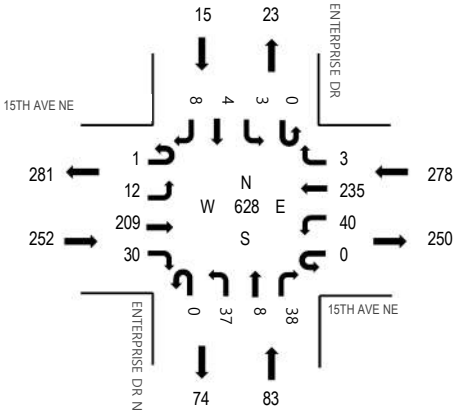
Interval Start Time	Heavy Vehicles					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	1	0	0	1	4:00 PM	0	0	0	0	0
4:15 PM	0	3	1	2	6	4:15 PM	0	0	0	0	0
4:30 PM	0	3	3	1	7	4:30 PM	0	0	0	0	0
4:45 PM	0	1	1	0	2	4:45 PM	0	0	0	0	0
5:00 PM	0	3	1	1	5	5:00 PM	0	0	0	0	0
5:15 PM	0	2	0	1	3	5:15 PM	0	0	0	0	0
5:30 PM	0	2	1	1	4	5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	1	0	1
Count Total	0	15	8	6	29	Count Total	0	0	1	0	1
Peak Hour	0	10	6	4	20	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

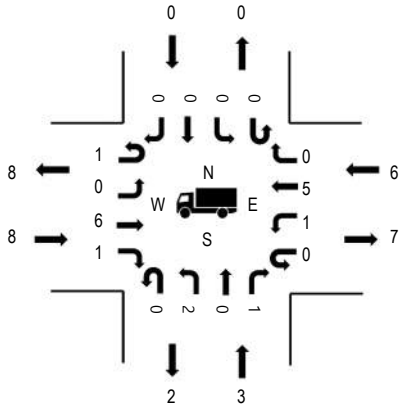
Location: 2 ENTERPRISE DR NE & 15TH AVE NE PM
Date: Monday, June 12, 2023
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

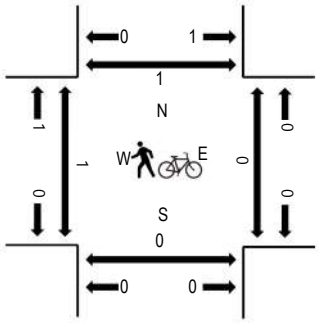
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	3.2%	0.90
WB	2.2%	0.89
NB	3.6%	0.52
SB	0.0%	0.75
All	2.7%	0.82

Traffic Counts - Motorized Vehicles

Interval Start Time	15TH AVE NE Eastbound				15TH AVE NE Westbound				ENTERPRISE DR NE Northbound				ENTERPRISE DR NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	1	4	54	11	0	15	62	1	0	17	3	20	0	0	0	3	191	628
4:15 PM	0	2	50	5	0	7	54	0	0	9	3	10	0	0	2	2	144	571
4:30 PM	0	3	52	5	0	7	61	1	0	6	1	3	0	1	0	2	142	565
4:45 PM	0	3	53	9	0	11	58	1	0	5	1	5	0	2	2	1	151	558
5:00 PM	0	1	42	7	0	9	55	3	0	7	0	6	0	1	1	2	134	541
5:15 PM	0	3	48	11	0	7	48	1	0	9	0	8	0	0	2	1	138	
5:30 PM	0	4	48	3	0	4	53	2	0	5	1	10	0	0	4	1	135	
5:45 PM	0	6	48	4	0	3	49	1	0	4	5	6	0	1	5	2	134	
Count Total	1	26	395	55	0	63	440	10	0	62	14	68	0	5	16	14	1,169	
Peak Hour	1	12	209	30	0	40	235	3	0	37	8	38	0	3	4	8	628	

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

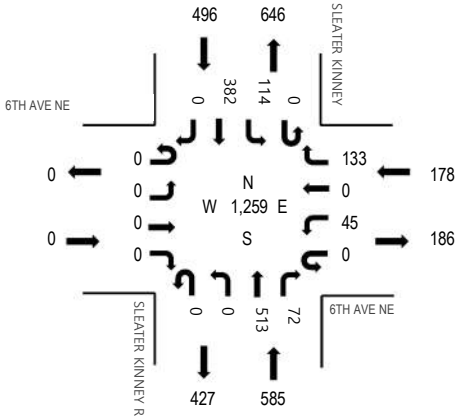
Interval Start Time	Heavy Vehicles					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	3	3	0	0	6	4:00 PM	1	0	0	1	2
4:15 PM	0	0	2	0	2	4:15 PM	0	0	0	0	0
4:30 PM	3	0	1	0	4	4:30 PM	0	0	0	0	0
4:45 PM	2	0	3	0	5	4:45 PM	0	0	0	0	0
5:00 PM	3	0	0	0	3	5:00 PM	0	0	0	1	1
5:15 PM	1	0	2	0	3	5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	1	2	5:30 PM	0	0	0	0	0
5:45 PM	2	1	0	0	3	5:45 PM	0	0	0	1	1
Count Total	15	4	8	1	28	Count Total	1	0	0	3	4
Peak Hour	8	3	6	0	17	Peak Hour	1	0	0	1	2

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

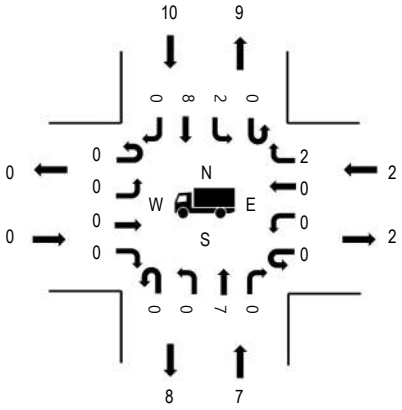
Location: 3 SLEATER KINNEY RD NE & 6TH AVE NE PM
Date: Monday, June 12, 2023
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

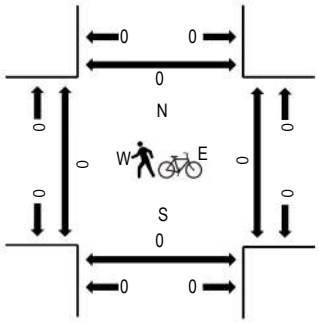
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	0.0%	0.00
WB	1.1%	0.89
NB	1.2%	0.86
SB	2.0%	0.97
All	1.5%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	6TH AVE NE Eastbound				6TH AVE NE Westbound				SLEATER KINNEY RD NE Northbound				SLEATER KINNEY RD NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	0	0	0	10	0	32	0	0	137	10	0	31	96	0	316	1,259
4:15 PM	0	0	0	0	0	12	0	36	0	0	106	19	0	19	96	0	288	1,241
4:30 PM	0	0	0	0	0	10	0	28	0	0	123	20	0	34	94	0	309	1,243
4:45 PM	0	0	0	0	0	13	0	37	0	0	147	23	0	30	96	0	346	1,156
5:00 PM	0	0	0	0	0	16	0	33	0	0	116	16	0	21	96	0	298	1,047
5:15 PM	0	0	0	0	0	10	0	33	0	0	136	12	0	18	81	0	290	
5:30 PM	0	0	0	0	0	5	0	23	0	0	93	10	0	13	78	0	222	
5:45 PM	0	0	0	0	0	7	0	30	0	0	99	15	0	21	65	0	237	
Count Total	0	0	0	0	0	83	0	252	0	0	957	125	0	187	702	0	2,306	
Peak Hour	0	0	0	0	0	45	0	133	0	0	513	72	0	114	382	0	1,259	

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

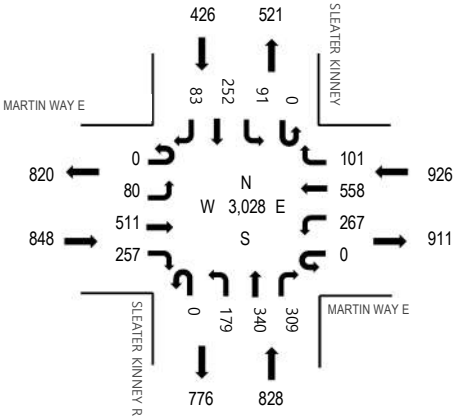
Interval Start Time	Heavy Vehicles					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	3	0	2	5	4:00 PM	0	0	0	0	0
4:15 PM	0	2	1	4	7	4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	2	2	4:30 PM	0	0	0	0	0
4:45 PM	0	2	1	2	5	4:45 PM	0	0	0	0	0
5:00 PM	0	2	0	1	3	5:00 PM	0	0	1	0	1
5:15 PM	0	0	1	1	2	5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	1	1	5:30 PM	0	0	1	0	1
5:45 PM	0	1	1	0	2	5:45 PM	0	0	0	0	0
Count Total	0	10	4	13	27	Count Total	0	0	2	0	2
Peak Hour	0	7	2	10	19	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

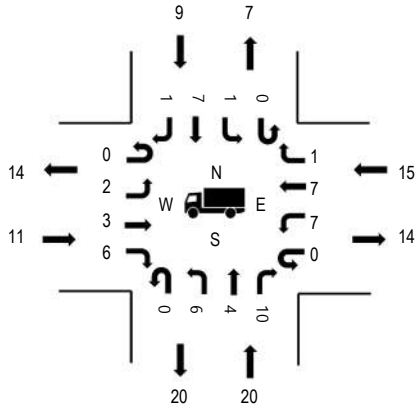
Location: 4 SLEATER KINNEY RD NE & MARTIN WAY E PM
Date: Monday, June 12, 2023
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

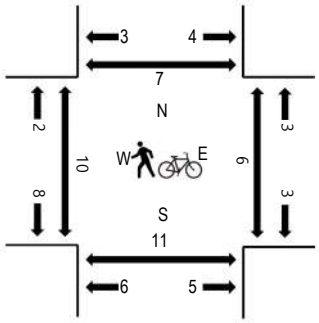
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	1.3%	0.90
WB	1.6%	0.93
NB	2.4%	0.91
SB	2.1%	0.89
All	1.8%	0.96

Traffic Counts - Motorized Vehicles

Interval Start Time	MARTIN WAY E Eastbound				MARTIN WAY E Westbound				SLEATER KINNEY RD NE Northbound				SLEATER KINNEY RD NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	18	136	68	0	67	164	18	0	60	82	74	0	25	57	22	791	3,028
4:15 PM	0	15	141	79	0	71	128	22	0	43	91	94	0	30	54	20	788	2,859
4:30 PM	0	22	129	55	0	61	134	44	0	34	91	74	0	13	70	15	742	2,627
4:45 PM	0	25	105	55	0	68	132	17	0	42	76	67	0	23	71	26	707	2,376
5:00 PM	0	19	89	42	0	57	97	19	0	38	89	64	0	25	64	19	622	2,159
5:15 PM	0	22	91	42	0	56	95	15	0	38	54	69	0	15	48	11	556	
5:30 PM	0	14	78	34	0	49	89	14	0	34	66	60	0	6	35	12	491	
5:45 PM	0	13	79	33	0	49	101	13	0	28	51	55	0	15	44	9	490	
Count Total	0	148	848	408	0	478	940	162	0	317	600	557	0	152	443	134	5,187	
Peak Hour	0	80	511	257	0	267	558	101	0	179	340	309	0	91	252	83	3,028	

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

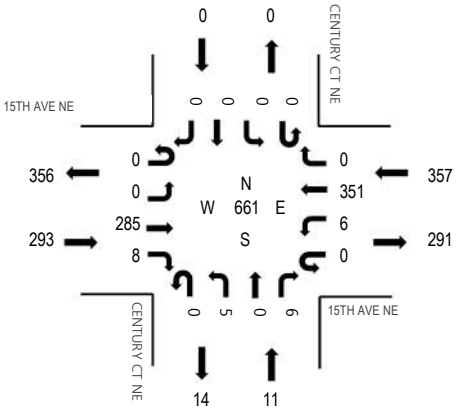
Interval Start Time	Heavy Vehicles					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	3	4	3	2	12	4:00 PM	2	2	0	2	6
4:15 PM	3	4	3	4	14	4:15 PM	5	6	2	3	16
4:30 PM	2	5	5	1	13	4:30 PM	0	0	2	0	2
4:45 PM	3	7	4	2	16	4:45 PM	3	3	2	2	10
5:00 PM	2	2	2	2	8	5:00 PM	2	5	2	3	12
5:15 PM	2	5	5	1	13	5:15 PM	2	2	1	2	7
5:30 PM	2	5	2	0	9	5:30 PM	0	4	2	1	7
5:45 PM	2	3	2	0	7	5:45 PM	0	0	0	1	1
Count Total	19	35	26	12	92	Count Total	14	22	11	14	61
Peak Hour	11	20	15	9	55	Peak Hour	10	11	6	7	34

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

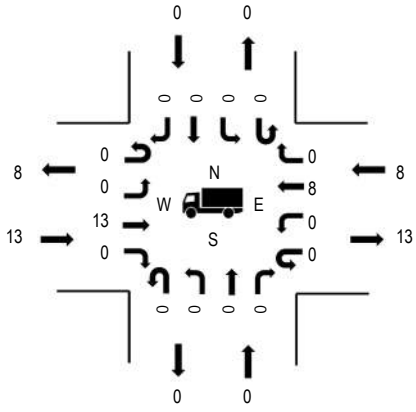
Location: 5 CENTURY CT NE & 15TH AVE NE PM
Date: Monday, June 12, 2023
Peak Hour: 04:00 PM - 05:00 PM

Peak Hour

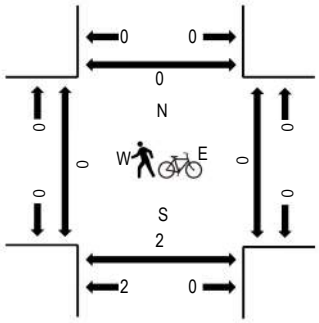
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



	HV%	PHF
EB	4.4%	0.81
WB	2.2%	0.94
NB	0.0%	0.69
SB	0.0%	0.00
All	3.2%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	15TH AVE NE Eastbound				15TH AVE NE Westbound				CENTURY CT NE Northbound				CENTURY CT NE Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	85	5	0	1	84	0	0	3	0	1	0	0	0	0	179	661
4:15 PM	0	0	66	0	0	2	86	0	0	1	0	3	0	0	0	0	158	622
4:30 PM	0	0	71	2	0	0	89	0	0	0	0	1	0	0	0	0	163	607
4:45 PM	0	0	63	1	0	3	92	0	0	1	0	1	0	0	0	0	161	583
5:00 PM	0	0	56	0	0	1	82	0	0	1	0	0	0	0	0	0	140	545
5:15 PM	0	0	72	0	0	1	69	0	0	1	0	0	0	0	0	0	143	
5:30 PM	0	0	67	2	0	0	68	0	0	1	0	1	0	0	0	0	139	
5:45 PM	0	0	61	3	0	1	57	0	0	1	0	0	0	0	0	0	123	
Count Total	0	0	541	13	0	9	627	0	0	9	0	7	0	0	0	0	1,206	
Peak Hour	0	0	285	8	0	6	351	0	0	5	0	6	0	0	0	0	661	

Traffic Counts - Heavy Vehicles and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	8	0	0	0	8	4:00 PM	0	0	0	0	0
4:15 PM	0	0	2	0	2	4:15 PM	0	0	0	0	0
4:30 PM	3	0	2	0	5	4:30 PM	0	2	0	0	2
4:45 PM	2	0	4	0	6	4:45 PM	0	0	0	0	0
5:00 PM	3	0	3	0	6	5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1	5:15 PM	0	1	0	0	1
5:30 PM	0	0	1	0	1	5:30 PM	0	0	0	0	0
5:45 PM	5	0	1	0	6	5:45 PM	0	1	0	0	1
Count Total	21	0	14	0	35	Count Total	0	4	0	0	4
Peak Hour	13	0	8	0	21	Peak Hour	0	2	0	0	2

Appendix D

Trip Generation Calculations

Williams Crossing (Thurston County)
Weekday Trip Generation Summary

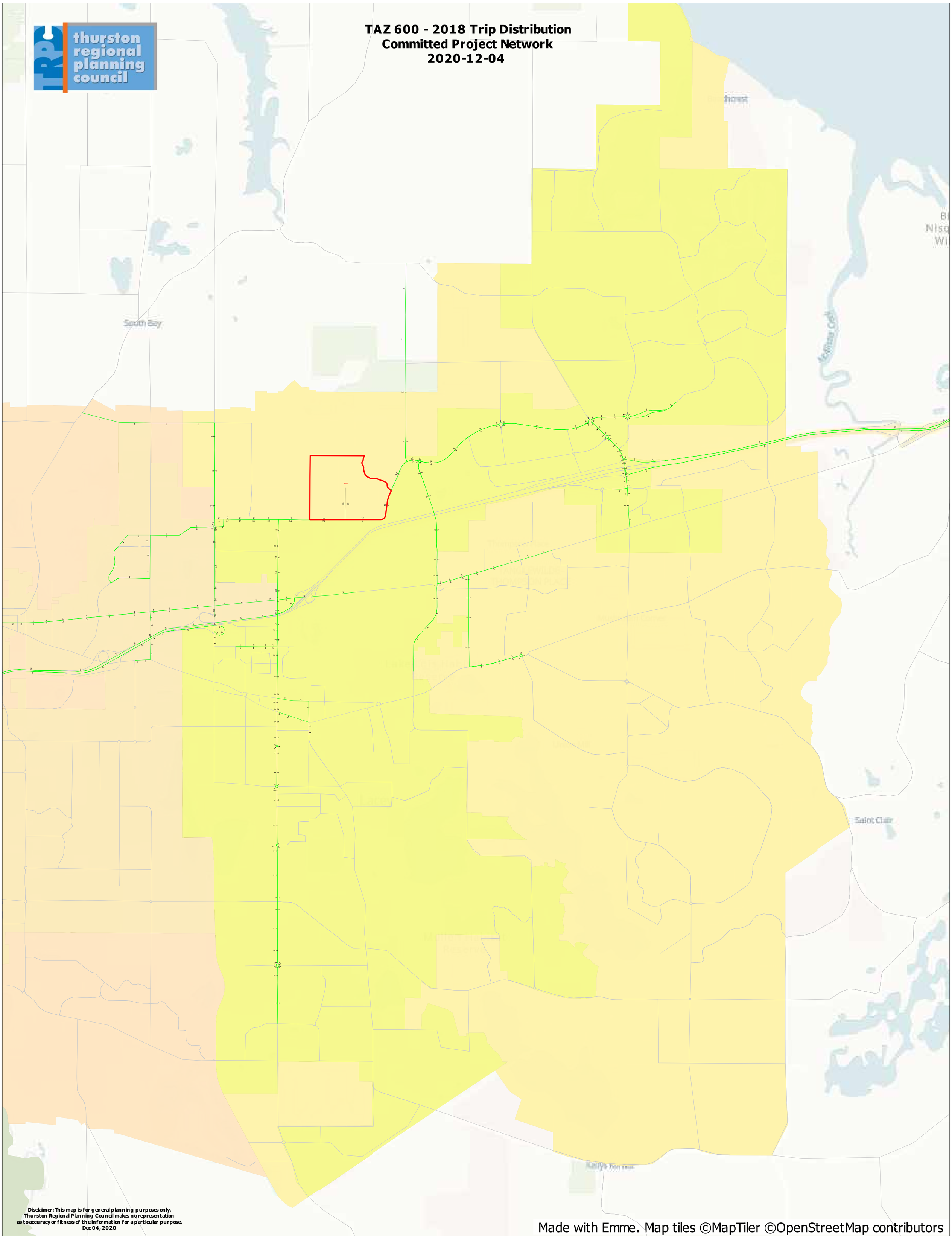
Land Use	Units [1]	ITE LUC [2]	Trip Rate or Equation [2]	Directional Distribution In	Directional Distribution Out	Trips Generated In	Trips Generated Out	Trips Generated Total
DAILY								
Proposed Use:								
Multifamily Housing (Low-Rise)	262 DU	220	6.74	50%	50%	883	883	1,766
				New Daily Trips Generated =		**883**	**883**	**1,766**
AM PEAK HOUR								
Proposed Use:								
Multifamily Housing (Low-Rise)	262 DU	220	0.40	24%	76%	25	80	105
				New AM Peak Hour Trips Generated =		**25**	**80**	**105**
PM PEAK HOUR								
Proposed Use:								
Multifamily Housing (Low-Rise)	262 DU	220	0.51	63%	37%	84	50	134
				New PM Peak Hour Trips Generated =		**84**	**50**	**134**

Notes:
[1] DU = Dwelling Units.
[2] Based on Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition, 2021.

Appendix E

TAZ 600 Model Distribution

TAZ 600 - 2018 Trip Distribution
Committed Project Network
2020-12-04



Disclaimer: This map is for general planning purposes only.
Thurston Regional Planning Council makes no representation
as to accuracy or fitness of the information for a particular purpose.
Dec 04, 2020

Appendix F

Level of Service (LOS) Methodology and Calculations

Level of Service Methodology

Level of Service (LOS) generally refers to the degree of congestion at an intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes intersection LOS.

Signalized Intersection LOS represents the average control delay (sec/veh) and can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for signalized intersections.

LOS Criteria for Signalized Intersections [1]

Control Delay (sec/veh)	Level of Service [2]	General Description [3]
≤ 10	A	Exceptionally Favorable Progression (or very short cycle lengths) – Most vehicles arrive during the green indication and travel through the intersection without stopping.
> 10 to ≤ 20	B	Highly Favorable Progression (or short cycle lengths) – While more vehicles than LOS A stop, most vehicles still pass through the intersection without stopping.
> 20 to ≤ 35	C	Favorable Progression (or moderate cycle lengths) – Individual cycle failures begin to appear, but many vehicles still pass through the intersection without stopping.
> 35 to ≤ 55	D	Ineffective Progression (or long cycle lengths) – Many vehicles stop and individual cycle failures are noticeable.
> 55 to ≤ 80	E	Unfavorable Progression (and long cycle lengths) – Individual cycle failures are frequent.
> 80	F	Very Poor Progression (and long cycle lengths) – Most cycles fail to clear the queue at this level.

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2021.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at signals, LOS is defined solely by control delay.
3 Individual cycle failures: one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle.

Synchro 12 and/or HCM 2000 LOS methodology may be used when HCM 7th Edition methodology is not supported at an intersection (i.e., intersection geometry and/or custom phasing) or jurisdictional standards require use of an alternative methodology.

Unsignalized Intersection LOS (two-way stop control, all-way stop control, and roundabouts) is based on the average control delay. For two-way stop-controlled intersections, the LOS criteria apply to each controlled minor-street approach, controlled minor-street lane group, and controlled major-street movement (additional v/c ratio criteria apply to lane group LOS only). LOS is not calculated for major-street approaches or for the intersection as a whole at two-way stop-controlled intersections. For all-way stop-controlled intersections and roundabouts, LOS can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for unsignalized intersections based on these methodologies.

LOS Criteria for Unsignalized Intersections[1]

Control Delay (sec/veh)	Level of Service [2]
≤ 10	A
> 10 to ≤ 15	B
> 15 to ≤ 25	C
> 25 to ≤ 35	D
> 35 to ≤ 50	E
> 50	F

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2021.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at unsignalized intersections, LOS is defined solely by control delay.

2023 Existing

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	141	74	475	166	46	338
Future Volume (vph)	141	74	475	166	46	338
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		400	0	
Storage Lanes	0	0		1	0	
Taper Length (ft)	25				25	
Link Speed (mph)	35		25			35
Link Distance (ft)	702		488			470
Travel Time (s)	16.0		11.1			10.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	141	74	475	166	46	338
Future Vol, veh/h	141	74	475	166	46	338
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	400	-	-
Veh in Median Storage, #0		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	2	2	1	1
Mvmt Flow	153	80	516	180	50	367

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	516	0	0	697	0
Stage 1	516	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.11	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.209	-
Pot Cap-1 Maneuver	274	557	-	-	904	-
Stage 1	597	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	255	557	-	-	904	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	43.54	0	1.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	314	216	-
HCM Lane V/C Ratio	-	-	0.745	0.055	-
HCM Control Delay (s/veh)	-	-	43.5	9.2	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	5.6	0.2	-

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	12	209	30	40	235	3	37	8	38	3	4
Future Volume (vph)	1	12	209	30	40	235	3	37	8	38	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			35			35			25			25
Link Distance (ft)			393			419			527			286
Travel Time (s)			8.9			9.5			12.0			0.0
Confl. Peds. (#/hr)		1					1	1				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	4%	4%	4%	0%	0%
Shared Lane Traffic (%)												
Sign Control			Free			Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	8
Future Volume (vph)	8
Ideal Flow (vphpl)	1900
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	1
Peak Hour Factor	0.82
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	2.9

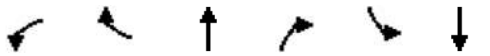
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↕			↕			↕			↕	
Traffic Vol, veh/h	1	12	209	30	40	235	3	37	8	38	3	4	8
Future Vol, veh/h	1	12	209	30	40	235	3	37	8	38	3	4	8
Conflicting Peds, #/hr	0	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	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	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	2	2	2	4	4	4	0	0	0
Mvmt Flow	1	15	255	37	49	287	4	45	10	46	4	5	10

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	291	0	0	291	0	0	690	694	273	676	710	290
Stage 1	-	-	-	-	-	-	-	302	305	-	387	387	-
Stage 2	-	-	-	-	-	-	-	388	389	-	289	323	-
Critical Hdwy	-	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Follow-up Hdwy	-	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.5	4	3.3
Pot Cap-1 Maneuver	-	1265	-	-	1270	-	-	357	364	761	370	361	754
Stage 1	-	-	-	-	-	-	-	703	659	-	641	613	-
Stage 2	-	-	-	-	-	-	-	632	605	-	723	654	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	~ -13	~ -13	-	-	1270	-	-	326	342	761	317	339	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	326	342	-	317	339	-
Stage 1	-	-	-	-	-	-	-	692	649	-	611	584	-
Stage 2	-	-	-	-	-	-	-	590	577	-	659	644	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v		1.14	15.48	12.96
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	444	91	-	-	258	-	-	470
HCM Lane V/C Ratio	0.228	-	-	-	0.038	-	-	0.039
HCM Control Delay (s/veh)	15.5	-	-	-	7.9	0	-	13
HCM Lane LOS	C	-	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	-	-	-	0.1	-	-	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	133	513	72	114	382
Future Volume (vph)	45	133	513	72	114	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Link Speed (mph)	25		25			25
Link Distance (ft)	608		410			436
Travel Time (s)	16.6		11.2			11.9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	1%	1%	1%	2%	2%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	133	513	72	114	382
Future Vol, veh/h	45	133	513	72	114	382
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	49	146	564	79	125	420

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1234	564	0	0	643	0
Stage 1	564	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	196	527	-	-	942	-
Stage 1	572	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	170	527	-	-	942	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	442	-	-	-	-	-

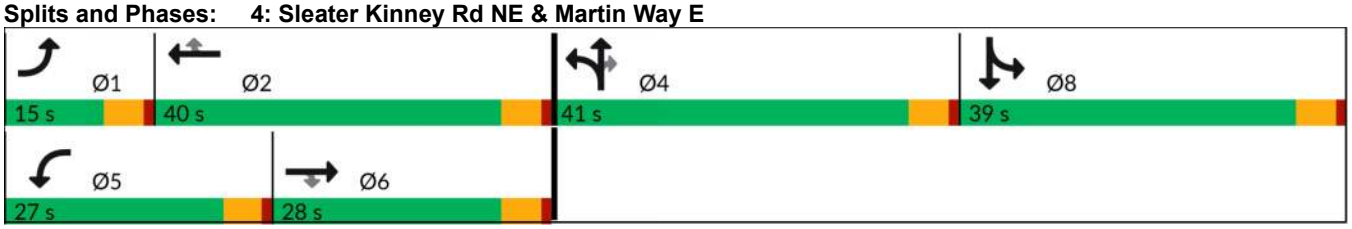
Approach	WB	NB	SB
HCM Control Delay, s/v	19.54	0	2.16
HCM LOS	C		

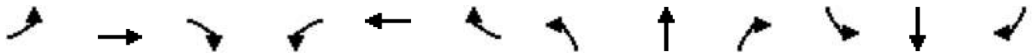
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	170	527	942	-
HCM Lane V/C Ratio	-	-	0.291	0.277	0.133	-
HCM Control Delay (s/veh)	-	-	34.7	14.4	9.4	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	1.1	0.5	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	511	257	267	558	101	179	340	309	91	252	83
Future Volume (vph)	80	511	257	267	558	101	179	340	309	91	252	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	150		200	150		0	275		400
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		700			444			423			609	
Travel Time (s)		13.6			8.6			11.5			16.6	
Confl. Peds. (#/hr)	7		11	11		7	10		6	6		10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)							10%			10%		
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	37.0	37.0	9.5	39.0	39.0	41.0	41.0	41.0	39.0	39.0	
Total Split (s)	15.0	28.0	28.0	27.0	40.0	40.0	41.0	41.0	41.0	39.0	39.0	
Total Split (%)	11.1%	20.7%	20.7%	20.0%	29.6%	29.6%	30.4%	30.4%	30.4%	28.9%	28.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 135	
Actuated Cycle Length: 100.6	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 4: Sleater Kinney Rd NE & Martin Way E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	511	257	267	558	101	179	340	309	91	252	83
Future Volume (veh/h)	80	511	257	267	558	101	179	340	309	91	252	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	532	268	278	581	105	180	362	322	95	262	86
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	816	359	344	1215	537	492	1034	433	321	487	156
Arrive On Green	0.08	0.23	0.23	0.19	0.34	0.34	0.28	0.28	0.28	0.18	0.18	0.16
Sat Flow, veh/h	1795	3582	1574	1781	3554	1570	1781	3741	1568	1781	2702	863
Grp Volume(v), veh/h	83	532	268	278	581	105	180	362	322	95	179	169
Grp Sat Flow(s),veh/h/ln	1795	1791	1574	1781	1777	1570	1781	1870	1568	1781	1870	1695
Q Serve(g_s), s	4.4	13.2	15.5	14.6	12.6	4.6	8.0	7.6	18.3	4.5	8.5	8.9
Cycle Q Clear(g_c), s	4.4	13.2	15.5	14.6	12.6	4.6	8.0	7.6	18.3	4.5	8.5	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	142	816	359	344	1215	537	492	1034	433	321	337	306
V/C Ratio(X)	0.59	0.65	0.75	0.81	0.48	0.20	0.37	0.35	0.74	0.30	0.53	0.55
Avail Cap(c_a), veh/h	220	915	402	437	1343	593	692	1452	609	655	688	624
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	34.3	35.2	37.8	25.3	22.7	28.5	28.4	32.3	34.7	36.4	37.0
Incr Delay (d2), s/veh	2.8	1.2	6.2	7.9	0.2	0.1	0.3	0.2	2.5	0.4	1.0	1.2
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	2.0	5.7	6.4	7.0	5.2	1.7	3.5	3.4	7.2	2.0	4.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.3	35.5	41.4	45.7	25.6	22.9	28.8	28.5	34.7	35.1	37.3	38.2
LnGrp LOS	D	D	D	D	C	C	C	C	C	D	D	D
Approach Vol, veh/h		883			964			864			443	
Approach Delay, s/veh		38.3			31.1			30.9			37.2	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	36.5		30.0	21.9	25.3		20.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		36.0	22.0	23.0		34.0				
Max Q Clear Time (g_c+I1), s	6.4	14.6		20.3	16.6	17.5		10.9				
Green Ext Time (p_c), s	0.0	3.3		3.1	0.3	1.8		2.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	33.9
HCM 7th LOS	C

Notes

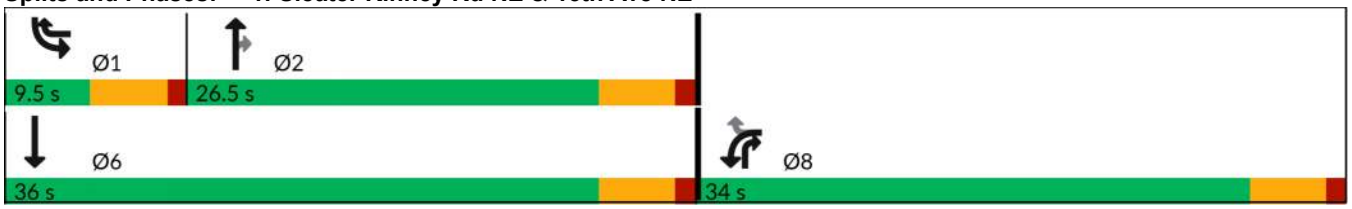
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

2026 No Action

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	169	94	622	196	61	434
Future Volume (vph)	169	94	622	196	61	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0		400	100	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	35		25			35
Link Distance (ft)	702		488			470
Travel Time (s)	13.7		13.3			9.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.0	9.5	23.0	34.0	9.5	23.0
Total Split (s)	34.0	9.5	26.5	34.0	9.5	36.0
Total Split (%)	48.6%	13.6%	37.9%	48.6%	13.6%	51.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 50.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: Sleater Kinney Rd NE & 15th Ave NE



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	169	94	622	196	61	434
Future Volume (veh/h)	169	94	622	196	61	434
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1885	1885
Adj Flow Rate, veh/h	184	102	676	213	66	472
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	2	2	1	1
Cap, veh/h	274	325	806	928	92	1137
Arrive On Green	0.15	0.15	0.43	0.43	0.05	0.60
Sat Flow, veh/h	1767	1572	1870	1585	1795	1885
Grp Volume(v), veh/h	184	102	676	213	66	472
Grp Sat Flow(s),veh/h/ln	1767	1572	1870	1585	1795	1885
Q Serve(g_s), s	4.1	2.3	13.3	2.7	1.5	5.5
Cycle Q Clear(g_c), s	4.1	2.3	13.3	2.7	1.5	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	274	325	806	928	92	1137
V/C Ratio(X)	0.67	0.31	0.84	0.23	0.72	0.42
Avail Cap(c_a), veh/h	1240	1184	973	1070	195	1414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	13.9	10.5	4.1	19.3	4.3
Incr Delay (d2), s/veh	2.1	0.4	5.3	0.1	7.4	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.7	5.3	1.0	0.7	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.6	14.3	15.8	4.2	26.7	4.5
LnGrp LOS	B	B	B	A	C	A
Approach Vol, veh/h	286		889			538
Approach Delay, s/veh	17.1		13.0			7.2
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.1	22.8			29.9	11.4
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	4.5	21.5			31.0	29.0
Max Q Clear Time (g_c+I1), s	3.5	15.3			7.5	6.1
Green Ext Time (p_c), s	0.0	2.5			2.3	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	11.9
HCM 7th LOS	B

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	13	253	34	45	285	3	42	9	43	3	4
Future Volume (vph)	1	13	253	34	45	285	3	42	9	43	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			35			35			25			25
Link Distance (ft)			393			419			527			286
Travel Time (s)			8.9			9.5			12.0			0.0
Confl. Peds. (#/hr)		1					1	1				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	4%	4%	4%	0%	0%
Shared Lane Traffic (%)												
Sign Control			Free			Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	9
Future Volume (vph)	9
Ideal Flow (vphpl)	1900
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	1
Peak Hour Factor	0.82
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	3.2

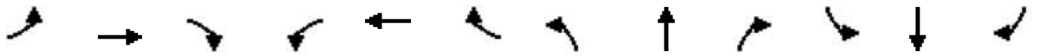
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↕			↕			↕			↕	
Traffic Vol, veh/h	1	13	253	34	45	285	3	42	9	43	3	4	9
Future Vol, veh/h	1	13	253	34	45	285	3	42	9	43	3	4	9
Conflicting Peds, #/hr	0	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	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	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	2	2	2	4	4	4	0	0	0
Mvmt Flow	1	16	309	41	55	348	4	51	11	52	4	5	11

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	352	0	0	350	0	0	822	825	329	806	844	351
Stage 1	-	-	-	-	-	-	-	361	363	-	460	460	-
Stage 2	-	-	-	-	-	-	-	461	462	-	346	384	-
Critical Hdwy	-	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Follow-up Hdwy	-	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.5	4	3.3
Pot Cap-1 Maneuver	-	1201	-	-	1209	-	-	291	305	708	303	302	697
Stage 1	-	-	-	-	-	-	-	653	621	-	585	569	-
Stage 2	-	-	-	-	-	-	-	577	561	-	674	615	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	~ -14	~ -14	-	-	1209	-	-	261	283	708	250	280	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	261	283	-	250	280	-
Stage 1	-	-	-	-	-	-	-	642	610	-	551	537	-
Stage 2	-	-	-	-	-	-	-	530	529	-	602	604	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v		1.1	19.01	14.27
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	82	-	-	243	-	-	408
HCM Lane V/C Ratio	0.309	-	-	-	0.045	-	-	0.048
HCM Control Delay (s/veh)	19	-	-	-	8.1	0	-	14.3
HCM Lane LOS	C	-	-	-	A	A	-	B
HCM 95th %tile Q(veh)	1.3	-	-	-	0.1	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	3	7	63	3	156	9	664	103	138	484	2
Future Volume (vph)	2	3	7	63	3	156	9	664	103	138	484	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	0		0	200		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		304			608			410			436	
Travel Time (s)		0.0			16.6			11.2			11.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	12.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	3	7	63	3	156	9	664	103	138	484	2
Future Vol, veh/h	2	3	7	63	3	156	9	664	103	138	484	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	-	-	-	150	-	0	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	2	2	2
Mvmt Flow	2	3	8	69	3	171	10	730	113	152	532	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1587	1699	533	1586	1587	730	534	0	0	843	0	0
Stage 1	836	836	-	749	749	-	-	-	-	-	-	-
Stage 2	751	863	-	837	837	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	88	93	551	88	109	424	1039	-	-	793	-	-
Stage 1	364	385	-	405	421	-	-	-	-	-	-	-
Stage 2	406	375	-	363	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	40	74	551	~ 66	86	424	1039	-	-	793	-	-
Mov Cap-2 Maneuver	40	74	-	~ 66	86	-	-	-	-	-	-	-
Stage 1	295	312	-	398	413	-	-	-	-	-	-	-
Stage 2	236	368	-	286	310	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	39.7	84.75	0.1	2.35
HCM LOS	E	F		

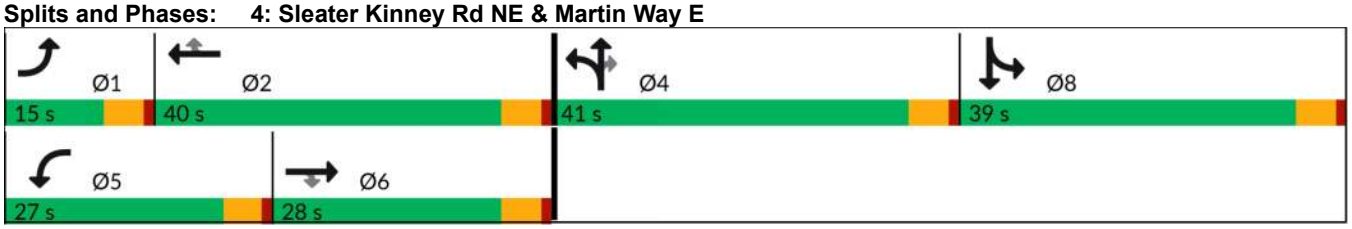
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	24	-	-	117	67	424	793	-	-
HCM Lane V/C Ratio	0.01	-	-	0.113	1.082	0.404	0.191	-	-
HCM Control Delay (s/veh)	8.5	0	-	39.7	239.9	19.1	10.6	-	-
HCM Lane LOS	A	A	-	E	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	5.6	1.9	0.7	-	-

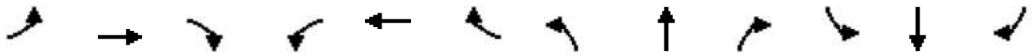
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	599	289	305	657	139	201	468	348	117	334	115
Future Volume (vph)	126	599	289	305	657	139	201	468	348	117	334	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	150		200	150		0	275		400
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		700			444			423			609	
Travel Time (s)		13.6			8.6			11.5			16.6	
Confl. Peds. (#/hr)	7		11	11		7	10		6	6		10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)							10%			10%		
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	37.0	37.0	9.5	39.0	39.0	41.0	41.0	41.0	39.0	39.0	
Total Split (s)	15.0	28.0	28.0	27.0	40.0	40.0	41.0	41.0	41.0	39.0	39.0	
Total Split (%)	11.1%	20.7%	20.7%	20.0%	29.6%	29.6%	30.4%	30.4%	30.4%	28.9%	28.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 135	
Actuated Cycle Length: 116	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 4: Sleater Kinney Rd NE & Martin Way E





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	599	289	305	657	139	201	468	348	117	334	115
Future Volume (veh/h)	126	599	289	305	657	139	201	468	348	117	334	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.98
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	624	301	318	684	145	209	488	362	122	348	120
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	761	334	363	1118	493	503	1057	443	354	529	179
Arrive On Green	0.10	0.21	0.21	0.20	0.31	0.31	0.28	0.28	0.28	0.20	0.20	0.18
Sat Flow, veh/h	1795	3582	1573	1781	3554	1568	1781	3741	1568	1781	2660	901
Grp Volume(v), veh/h	131	624	301	318	684	145	209	488	362	122	243	225
Grp Sat Flow(s),veh/h/ln	1795	1791	1573	1781	1777	1568	1781	1870	1568	1781	1870	1690
Q Serve(g_s), s	8.3	19.5	21.9	20.4	19.2	8.2	11.2	12.7	25.3	6.9	14.1	14.6
Cycle Q Clear(g_c), s	8.3	19.5	21.9	20.4	19.2	8.2	11.2	12.7	25.3	6.9	14.1	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	183	761	334	363	1118	493	503	1057	443	354	372	336
V/C Ratio(X)	0.72	0.82	0.90	0.88	0.61	0.29	0.42	0.46	0.82	0.34	0.65	0.67
Avail Cap(c_a), veh/h	183	761	334	363	1118	493	575	1208	507	545	572	517
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	44.2	45.1	45.4	34.2	30.5	34.3	34.8	39.4	40.5	43.4	44.1
Incr Delay (d2), s/veh	11.8	6.9	25.8	20.2	0.9	0.2	0.4	0.2	8.5	0.4	1.4	1.7
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	4.3	9.3	10.8	10.9	8.3	3.1	5.0	5.9	10.8	3.1	6.7	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.0	51.1	70.9	65.6	35.1	30.7	34.7	35.1	47.9	41.0	44.8	45.8
LnGrp LOS	E	D	E	E	D	C	C	D	D	D	D	D
Approach Vol, veh/h		1056			1147			1059			590	
Approach Delay, s/veh		58.2			43.0			39.4			44.4	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	40.0		36.2	27.0	28.0		26.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		36.0	22.0	23.0		34.0				
Max Q Clear Time (g_c+I1), s	10.3	21.2		27.3	22.4	23.9		16.6				
Green Ext Time (p_c), s	0.0	3.6		3.1	0.0	0.0		2.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	46.4
HCM 7th LOS	D

Notes

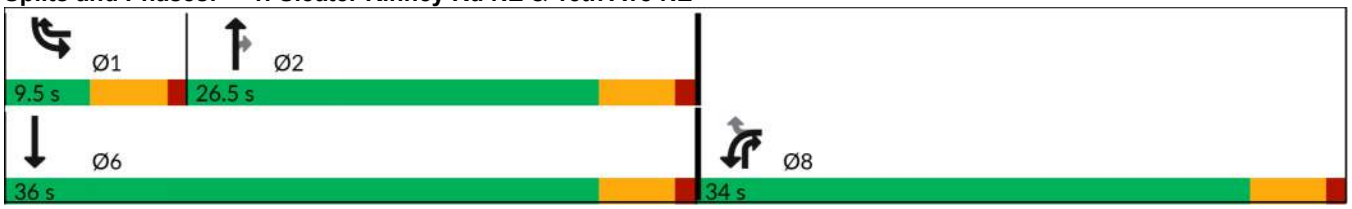
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

2026 With Project

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	169	99	622	230	68	434
Future Volume (vph)	169	99	622	230	68	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100	0		400	100	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Right Turn on Red		Yes		Yes		
Link Speed (mph)	35		25			35
Link Distance (ft)	702		488			470
Travel Time (s)	13.7		13.3			9.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	1%	1%
Shared Lane Traffic (%)						
Turn Type	Prot	pm+ov	NA	pm+ov	Prot	NA
Protected Phases	8	1	2	8	1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	8	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	34.0	9.5	23.0	34.0	9.5	23.0
Total Split (s)	34.0	9.5	26.5	34.0	9.5	36.0
Total Split (%)	48.6%	13.6%	37.9%	48.6%	13.6%	51.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min	None	None	Min

Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 50.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: Sleater Kinney Rd NE & 15th Ave NE



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	169	99	622	230	68	434
Future Volume (veh/h)	169	99	622	230	68	434
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1885	1885
Adj Flow Rate, veh/h	184	108	676	250	74	472
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	2	2	1	1
Cap, veh/h	274	331	805	928	99	1141
Arrive On Green	0.16	0.16	0.43	0.43	0.06	0.61
Sat Flow, veh/h	1767	1572	1870	1585	1795	1885
Grp Volume(v), veh/h	184	108	676	250	74	472
Grp Sat Flow(s),veh/h/ln	1767	1572	1870	1585	1795	1885
Q Serve(g_s), s	4.1	2.4	13.5	3.2	1.7	5.5
Cycle Q Clear(g_c), s	4.1	2.4	13.5	3.2	1.7	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	274	331	805	928	99	1141
V/C Ratio(X)	0.67	0.33	0.84	0.27	0.75	0.41
Avail Cap(c_a), veh/h	1227	1179	963	1062	193	1399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	14.0	10.6	4.3	19.4	4.3
Incr Delay (d2), s/veh	2.1	0.4	5.4	0.1	8.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.7	5.4	1.2	0.8	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.7	14.4	16.1	4.4	27.5	4.5
LnGrp LOS	B	B	B	A	C	A
Approach Vol, veh/h	292		926			546
Approach Delay, s/veh	17.1		12.9			7.6
Approach LOS	B		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.3	23.0			30.3	11.5
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	4.5	21.5			31.0	29.0
Max Q Clear Time (g_c+I1), s	3.7	15.5			7.5	6.1
Green Ext Time (p_c), s	0.0	2.5			2.3	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	13	294	34	74	290	3	42	9	57	3	4
Future Volume (vph)	1	13	294	34	74	290	3	42	9	57	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)			35			35			25			25
Link Distance (ft)			393			419			527			286
Travel Time (s)			8.9			9.5			12.0			0.0
Confl. Peds. (#/hr)		1					1	1				
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	4%	4%	4%	0%	0%
Shared Lane Traffic (%)												
Sign Control			Free			Free			Stop			Stop

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	9
Future Volume (vph)	9
Ideal Flow (vphpl)	1900
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	1
Peak Hour Factor	0.82
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	4.1

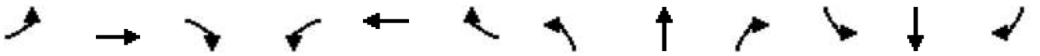
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↕			↕			↕			↕	
Traffic Vol, veh/h	1	13	294	34	74	290	3	42	9	57	3	4	9
Future Vol, veh/h	1	13	294	34	74	290	3	42	9	57	3	4	9
Conflicting Peds, #/hr	0	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	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	82	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	2	2	2	4	4	4	0	0	0
Mvmt Flow	1	16	359	41	90	354	4	51	11	70	4	5	11

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	-	358	0	0	400	0	0	949	952	379	933	971	357
Stage 1	-	-	-	-	-	-	-	411	413	-	537	537	-
Stage 2	-	-	-	-	-	-	-	538	539	-	396	434	-
Critical Hdwy	-	4.13	-	-	4.12	-	-	7.14	6.54	6.24	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.14	5.54	-	6.1	5.5	-
Follow-up Hdwy	-	2.227	-	-	2.218	-	-	3.536	4.036	3.336	3.5	4	3.3
Pot Cap-1 Maneuver	-	1195	-	-	1159	-	-	238	257	663	249	255	691
Stage 1	-	-	-	-	-	-	-	614	590	-	532	526	-
Stage 2	-	-	-	-	-	-	-	524	519	-	634	584	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	~ -14	~ -14	-	-	1159	-	-	204	228	663	189	226	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	204	228	-	189	226	-
Stage 1	-	-	-	-	-	-	-	603	579	-	479	475	-
Stage 2	-	-	-	-	-	-	-	460	468	-	546	574	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v		1.69	23.36	16.14
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	326	72	-	-	362	-	-	343
HCM Lane V/C Ratio	0.404	-	-	-	0.078	-	-	0.057
HCM Control Delay (s/veh)	23.4	-	-	-	8.4	0	-	16.1
HCM Lane LOS	C	-	-	-	A	A	-	C
HCM 95th %tile Q(veh)	1.9	-	-	-	0.3	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	3	7	63	3	156	9	698	103	138	484	2
Future Volume (vph)	2	3	7	63	3	156	9	698	103	138	484	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	0		0	200		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		304			608			410			436	
Travel Time (s)		0.0			16.6			11.2			11.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	14.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	3	7	63	3	156	9	698	103	138	484	2
Future Vol, veh/h	2	3	7	63	3	156	9	698	103	138	484	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	-	-	-	150	-	0	-	-	-	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	2	2	2
Mvmt Flow	2	3	8	69	3	171	10	767	113	152	532	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1625	1736	533	1624	1624	767	534	0	0	880	0	0
Stage 1	836	836	-	787	787	-	-	-	-	-	-	-
Stage 2	788	900	-	837	837	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.11	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.209	-	-	2.218	-	-
Pot Cap-1 Maneuver	83	88	551	83	103	404	1039	-	-	768	-	-
Stage 1	364	385	-	386	404	-	-	-	-	-	-	-
Stage 2	387	360	-	363	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	36	70	551	~ 62	81	404	1039	-	-	768	-	-
Mov Cap-2 Maneuver	36	70	-	~ 62	81	-	-	-	-	-	-	-
Stage 1	292	309	-	379	397	-	-	-	-	-	-	-
Stage 2	217	353	-	284	308	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	42.79	96.36	0.09	2.4
HCM LOS	E	F		

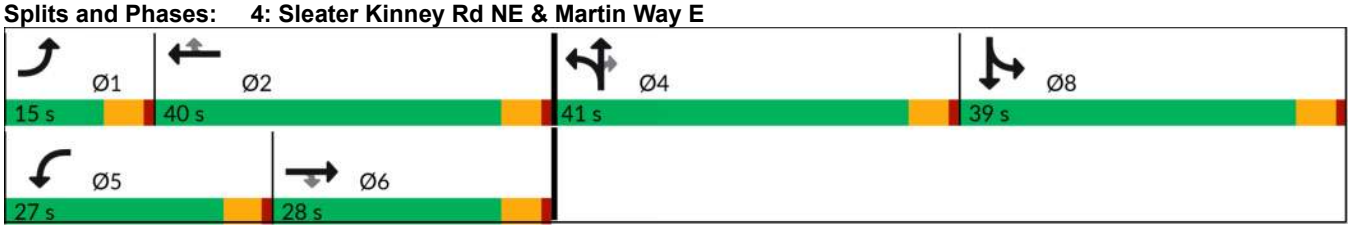
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	23	-	-	108	62	404	768	-	-
HCM Lane V/C Ratio	0.01	-	-	0.122	1.161	0.425	0.197	-	-
HCM Control Delay (s/veh)	8.5	0	-	42.8	276	20.3	10.8	-	-
HCM Lane LOS	A	A	-	E	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	5.9	2.1	0.7	-	-

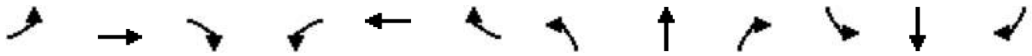
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	137	599	289	305	657	139	201	491	348	117	334	115
Future Volume (vph)	137	599	289	305	657	139	201	491	348	117	334	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		250	150		200	150		0	275		400
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		700			444			423			609	
Travel Time (s)		13.6			8.6			11.5			16.6	
Confl. Peds. (#/hr)	7		11	11		7	10		6	6		10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)							10%			10%		
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA	Perm	Split	NA	
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases			6			2			4			
Detector Phase	1	6	6	5	2	2	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	9.5	37.0	37.0	9.5	39.0	39.0	41.0	41.0	41.0	39.0	39.0	
Total Split (s)	15.0	28.0	28.0	27.0	40.0	40.0	41.0	41.0	41.0	39.0	39.0	
Total Split (%)	11.1%	20.7%	20.7%	20.0%	29.6%	29.6%	30.4%	30.4%	30.4%	28.9%	28.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	

Intersection Summary	
Area Type:	Other
Cycle Length: 135	
Actuated Cycle Length: 117	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 4: Sleater Kinney Rd NE & Martin Way E





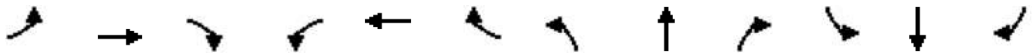
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	599	289	305	657	139	201	491	348	117	334	115
Future Volume (veh/h)	137	599	289	305	657	139	201	491	348	117	334	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.98
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	624	301	318	684	145	209	511	362	122	348	120
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	761	334	363	1117	493	504	1059	444	354	529	179
Arrive On Green	0.10	0.21	0.21	0.20	0.31	0.31	0.28	0.28	0.28	0.20	0.20	0.18
Sat Flow, veh/h	1795	3582	1573	1781	3554	1568	1781	3741	1568	1781	2660	901
Grp Volume(v), veh/h	143	624	301	318	684	145	209	511	362	122	243	225
Grp Sat Flow(s),veh/h/ln	1795	1791	1573	1781	1777	1568	1781	1870	1568	1781	1870	1690
Q Serve(g_s), s	9.2	19.6	22.0	20.4	19.2	8.2	11.2	13.4	25.3	6.9	14.1	14.6
Cycle Q Clear(g_c), s	9.2	19.6	22.0	20.4	19.2	8.2	11.2	13.4	25.3	6.9	14.1	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.53
Lane Grp Cap(c), veh/h	183	761	334	363	1117	493	504	1059	444	354	372	336
V/C Ratio(X)	0.78	0.82	0.90	0.88	0.61	0.29	0.41	0.48	0.82	0.34	0.65	0.67
Avail Cap(c_a), veh/h	183	761	334	363	1117	493	575	1207	506	545	572	517
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	44.2	45.2	45.4	34.3	30.5	34.3	35.0	39.3	40.6	43.4	44.1
Incr Delay (d2), s/veh	18.7	7.0	25.9	20.3	0.9	0.2	0.4	0.3	8.5	0.4	1.4	1.7
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	5.0	9.3	10.8	10.9	8.3	3.1	5.0	6.2	10.8	3.1	6.7	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	70.3	51.2	71.1	65.7	35.2	30.8	34.7	35.3	47.8	41.0	44.9	45.8
LnGrp LOS	E	D	E	E	D	C	C	D	D	D	D	D
Approach Vol, veh/h		1068			1147			1082			590	
Approach Delay, s/veh		59.4			43.1			39.4			44.4	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	40.0		36.3	27.0	28.0		26.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		36.0	22.0	23.0		34.0				
Max Q Clear Time (g_c+I1), s	11.2	21.2		27.3	22.4	24.0		16.6				
Green Ext Time (p_c), s	0.0	3.6		3.1	0.0	0.0		2.6				

Intersection Summary	
HCM 7th Control Delay, s/veh	46.7
HCM 7th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	339	9	7	416	30	6	0	7	16	0	34
Future Volume (vph)	54	339	9	7	416	30	6	0	7	16	0	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		524			552			393			548	
Travel Time (s)		11.9			12.5			8.9			12.5	
Confl. Peds. (#/hr)			2	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
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

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	54	339	9	7	416	30	6	0	7	16	0	34
Future Vol, veh/h	54	339	9	7	416	30	6	0	7	16	0	34
Conflicting Peds, #/hr	0	0	2	2	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, %	4	4	4	2	2	2	0	0	0	3	3	3
Mvmt Flow	59	368	10	8	452	33	7	0	8	17	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	380	0	0	960	993	375	970	981	468
Stage 1	-	-	-	-	-	-	493	493	-	484	484	-
Stage 2	-	-	-	-	-	-	467	500	-	486	498	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.236	-	-	2.218	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	1068	-	-	1178	-	-	238	247	675	232	248	593
Stage 1	-	-	-	-	-	-	562	551	-	562	551	-
Stage 2	-	-	-	-	-	-	580	546	-	561	543	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1068	-	-	1176	-	-	206	228	674	211	229	593
Mov Cap-2 Maneuver	-	-	-	-	-	-	206	228	-	211	229	-
Stage 1	-	-	-	-	-	-	522	511	-	557	546	-
Stage 2	-	-	-	-	-	-	539	542	-	516	504	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.15	0.12	16.45	16.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	328	241	-	-	27	-	-	376
HCM Lane V/C Ratio	0.043	0.055	-	-	0.006	-	-	0.145
HCM Control Delay (s/veh)	16.5	8.6	0	-	8.1	0	-	16.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.5