TRAFFIC ANALYSIS REPORT

FOR

LARSEN DRIVE SUBDIVISION

NW LARSEN DRIVE

CITY OF LA CENTER

SUBMITTED BY

CHARBONNEAU ENGINEERING LLC

November 2023

Project 23-27

TRAFFIC ANALYSIS REPORT

FOR

LARSEN DRIVE SUBDIVISION

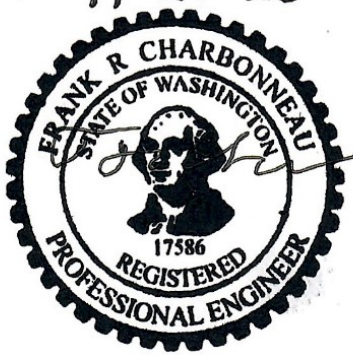
NW LARSEN DRIVE

CITY OF LA CENTER

Prepared By

CHARBONNEAU Engineering LLC

11-28-23



November 2023

Project 23-27

8516 SW 61st Avenue, Portland, OR 97219 Phone: 971.322.8003

TABLE OF CONTENTS

FL23100

INTRODUCTION

This traffic study has been prepared to evaluate and document the operations and safety conditions for the Larsen Drive Subdivision development being planned in La Center, Washington. The development will build a subdivision with 41 single-family homes. The project site is located in north La Center and generally southeast of the intersection at Pacific Highway and NW Larsen Drive. Figure 'a' in the appendix is a vicinity map highlighting the project location.

In accordance with the City's requirements the study area was defined as the surrounding neighborhood including the site access points on NW Larsen Drive and several key intersections along Pacific Highway and Lacenter Road.

TRAFFIC ANALYSIS CONSIDERATIONS

In the project scope established with City of La Center staff, a number of important elements were identified and considered in the study.

- Inventory and record pertinent information such as traffic control devices, circulation patterns, lane conditions, pedestrian & bicycle facilities, transit zones, parking, and street characteristics.
- Record data on typical weekdays during the AM & PM peak traffic hours.
- Obtain traffic counts for the intersections on Pacific Highway at NW Larsen Drive/NW 14th Avenue, West 10th Street, and West 5th Street and on Lacenter Drive at Timmen Road and at Paradise Park Road.
- The project buildout is estimated to occur in year 2026. Three years of traffic growth at 2% per year was applied to establish the year 2026 background volumes. The City confirmed that in-process traffic for the Asa's View and Lockwood Meadows Subdivision developments was applicable.
- Prepare trip generation for 41 single-family homes using the latest edition of the ITE Trip Generation manual (11th edition, year 2021).
- Level of service (LOS) analysis of the study intersections to measure the approach delays and LOS for comparison to City of La Center standards.
- Review intersection sight distance at the proposed accesses on NW Larsen Drive.
- Prepare peak hour signal warrants and left turn lane warrants.
- Review crash data furnished by WSDOT. Identify crash rates at the study intersections.
- Review the City's Transportation Capital Facilities Plan dated 7/25/2018 to identify future transportation system projects.

SITE DESCRIPTION, STREETS, ACCESS, AND CRITICAL INTERSECTIONS

Development of the Larsen Drive Subdivision project will include construction of 41 single-family homes. The project's location is situated on approximately 6.4 acres (tax lot #258631-

000) near the corner of Pacific Highway and NW Larsen Drive. The address is 3214 NW Pacific Highway, La Center. The development parcel is currently vacant and is used for agriculture. The adjacent parcel (tax lot #258766-000) contains one home that will remain, with access provided through the Larsen Drive Subdivision.

Access to the proposed development includes two new street approaches on NW Larsen Drive at NW 11th Street and NW 13th Way. The project site plan (Figure 'b') illustrates the access locations. The new approaches will have stop control. The site's internal streets will include sidewalks and provide connectivity within the site for circulation purposes.

The study intersections on Pacific Highway at Larsen Drive/NW 14th Avenue, 10th Street, and at 5th Street are currently controlled by stop signs. The intersections on Lacenter Road at Timmen Road and at Paradise Park Road are controlled by stop signing. In the future according to WSDOT's Six Year TIP for 2016-2021 and the City's Capital Facilities Plan (year 2018) the intersection of Lacenter Road at Timmen Road will become signalized or converted to a roundabout. The intersection at Lacenter Road and Paradise Park Road will include signalization. The existing and proposed lane configurations and traffic control are presented in Figures c1 & c2, respectively.

Pacific Highway adjacent to the site is classified as a major arterial and contains one travel lane in each direction. The travel speed is posted at 35 MPH. There are no bike lanes. Sidewalk occurs on both sides of the street north of NW Larsen Drive and on the easterly side south of NW Larsen Drive. No on-street parking is permitted.

Pacific Highway at NW Larsen Drive/NW 14th Avenue is four-way intersection with stop control on the side street approaches. There are no separate turn lanes at this location. The travel speed is posted at 35 MPH on Pacific Highway.

Pacific Highway at 10th Street is configured as a tee-shaped intersection containing stop signing on the 10th Street approach where there are separate left and right turn lanes. There are no separate turn lanes on Pacific Highway. The travel speed is posted at 25 MPH on Pacific Highway. There are no bike lanes. Sidewalks exist on both streets.

Pacific Highway at 5th Street is four-way intersection with stop control on the 5th Street approaches. There are no separate turn lanes at this location. The travel speed is posted at 25 MPH on Pacific Highway. There are no bike lanes. Sidewalks exist on both streets.

Lacenter Road at Timmen Road is configured as a tee-shaped intersection containing stop signing on the Timmen Road approach where there are separate left and right turn lanes on approaching Lacenter Road. There is a separate westbound left turn lane on Pacific Highway. The travel speed is posted at 40 MPH on Pacific Highway. There are no bike lanes or sidewalks at this location.

Lacenter Road at Paradise Park Road is configured as a four-way design with stop control on the approaches to Lacenter Road. There are separate left turn lanes on all approaches. Pedestrian crosswalks are marked on the north and south intersection legs. No bike lanes are present.

TRAFFIC OPERATIONAL ANALYSIS

In order to evaluate traffic flow and delay at the study intersections level of service (LOS) and safety conditions were determined. The intersections evaluated included Pacific Highway at Larsen Drive/NW 14th Avenue, 10th Street, and at 5th Street and Lacenter Road at Timmen Road and at Paradise Park Road. Larsen Drive at the site accesses was also evaluated.

The traffic analysis included the determination of the LOS and average delay per vehicle in the peak hours for the following scenarios:

- Year 2023 Existing Traffic
- Year 2026 Background Traffic
- Year 2026 Total Traffic

In order to perform the LOS analysis at the critical intersections video traffic counts were conducted during the AM peak (7:00-9:00AM) & PM peak (4:00-6:00 PM) traffic hours. The counts were collected in September 2023. Figures 1a & 1b depict the existing AM & PM peak hour traffic volumes, respectively.

Three years of traffic growth (2% per year) plus in-process traffic has been added to the existing volumes to account for the background traffic volumes. In-process traffic included the Asa's View and Lockwood Meadows subdivision developments. The in-process traffic is shown on Figures 2a & 2b. The year 2026 background traffic volumes are illustrated in Figures 3a & 3b.

The year 2026 total traffic scenario (background plus site generated traffic) is presented in Figures 6a & 6b.

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual 11th edition (year 2021) were utilized to estimate the site's trip generation. The trip generation is summarized in Table 1. Trip rates for land-use code #210 and single-family housing was applied.

Table 1 Trip Generation Summary

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
Single-Family (#210)	41							
Generation Rate [1]		9.43	0.70	26%	74%	0.94	63%	37%
Site Trips		**387**	**29**	8	21	**39**	25	14

[1] Source: *Trip Generation* , 11th Edition, ITE, 2021, average rates.

The proposed development is expected to generate a net total 387 daily trips, 29 AM peak hour trips, and 39 PM peak hour trips.

The trip distribution was based on the existing traffic counts, intersection traffic control, site access locations, and engineering judgment. Figure 4 presents the trip distribution results and Figures 5a & 5b display the trip assignments for the AM & PM peak hours, respectively.

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday peak hours. Synchro v11.1 software based on the year 2016 Highway Capacity Manual methodology was used to determine the LOS and approach delays for the study intersections. The results are summarized in the following table. Copies of the capacity analysis summaries are included in the appendix.

Table 2 Capacity Analysis Summary

Intersection	Type of Control	Peak Hour	Traffic Scenario											
			2023 Existing				2026 Background				2026 Total			
			Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c	Crit. Mov't	LOS	Delay	v/c
Pacific Highway & NW Larsen Drive	Two-way Stop	AM	WB	B	12.1	0.11	WB	B	12.4	0.13	WB	B	13.1	0.14
		PM	WB	C	18.0	0.14	WB	C	19.3	0.15	WB	C	21.2	0.17
Pacific Highway & W. 10th Street	Two-way Stop	AM	WB	B	11.7	0.12	WB	B	12.0	0.13	WB	B	12.3	0.14
		PM	WB	B	14.8	0.11	WB	C	15.6	0.12	WB	C	16.0	0.13
Pacific Highway & W. 5th Street	Two-way Stop	AM	WB	B	13.7	0.04	WB	B	14.2	0.04	WB	B	14.6	0.04
		PM	WB	C	16.4	0.08	WB	C	17.4	0.09	WB	C	17.9	0.09
NW Lacnter Rd & NW Timmen Road	Two-way Stop	AM	NB	C	18.3	0.10	NB	C	20.0	0.11	NB	C	20.4	0.12
		PM	NB	F	112.2	1.09	NB	F	161.4	1.23	NB	F	173.0	1.26
	Mitigated [1]	*AM*	-	-	-	-	-	-	-	-	-	-	-	-
		PM	-	-	-	-	-	*B*	*13.3*	*0.39*	-	*B*	*13.8*	*0.40*
NW Lacenter Rd & Paradise Park Road	Two-way Stop	AM	NB	D	31.7	0.01	NB	E	35.6	0.01	NB	E	36.5	0.01
		PM	NB	D	190.1	0.26	NB	F	287.8	0.30	NB	F	305.1	0.30
	Mitigated [2]	*AM*	-	-	-	-	-	-	-	-	-	-	-	-
		PM	-	-	-	-	-	*B*	*13.5*	*0.38*	-	*B*	*13.6*	*0.39*

Notes: 2016 Highway Capacity Manual methodology used in analysis, Synchro v11. NB - Northbound, SB - Southbound, EB - Eastbound, WB - Westbound, LT - Left Turn, Crit. Mov't - Critical movement or critical approach.

[1] Mitigation: Installation of a roundabout, I, which is consistent with the 2016-2036 La Center Transportation Capitol Facilities Plan.

[2] Mitigation: Installation of traffic signal, which is consistent with the 2016-2036 La Center Transportation Capitol Facilities Plan.

According to the City's Comprehensive Plan policy the minimum acceptable level of service mobility standard for stop controlled intersections is LOS `E`. As documented in the Table 2 the intersections on Pacific Highway at NW Larsen Drive, West 10th Street, and West 5th Street will operate at acceptable LOS `C` or better through the year 2026 total traffic scenario. No mitigation is necessary at these locations.

At the two site access locations the total two-way traffic along NW Larsen Drive will be less than 70 vehicles in the peak hours. Therefore, both accesses will operate at LOS `A` with stop control on the approaches to NW Larsen Drive.

Lacenter Road at NW Timmen Road currently operates at LOS `D`. For the year 2026 background and total traffic scenarios it will experience failing conditions (LOS `F`) during the PM peak hour. In the future the intersection will become signalized or a roundabout will be constructed according to the City's Capital Facilities Plan. With either improvement the intersection will operate at acceptable LOS `B`. As a dedicated improvement is planned and

the failing condition occurs due to background traffic no intersection improvements are necessary in conjunction with the proposed development.

Lacenter Road at NW Paradise Park Road currently operates at LOS `D`. For the year 2026 background and total traffic scenarios it will experience failing conditions (LOS `F`) in the PM peak hour. In the future the intersection will become signalized according to the City's Capital Facilities Plan. With this improvement the intersection will operate at acceptable LOS `B`. As a dedicated improvement is planned and the failing condition occurs due to background traffic no intersection improvements are necessary in conjunction with the proposed development.

Generally, LOS 'A', 'B', 'C', and 'D' are desirable service levels ranging from no vehicle delays to average or longer than average delays in the peak hours. Level 'E' represents longer delays and is considered to be the limit of acceptable delay for unsignalized and signalized intersections. Signalization warrants need to be reviewed and signals considered only if warrants are met. Level 'F' indicates that intersection improvements, such as widening and signalization, may be required. According to the Highway Capacity Manual (HCM*)*, the following delay times are associated with the LOS at stop controlled unsignalized and signalized intersections.

Level of Service criteria defined in Highway Capacity Manual

Level of Service (LOS)	Unsignalized Control Stopped Delay (sec/veh)	Signalized Control Stopped Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

QUEUING ANALYSIS

Queue length demand on the proposed site accesses on NW Larsen Drive will be minimal at one to two cars. This determination is based on the low traffic conditions projected along NW Larsen Drive (two-way volumes less than 70 vehicles in the peak hours).

Traffic queuing on the stop-controlled approaches to Lacenter Road at Paradise Park Road and at Timmen Road was determined with the capacity analyses. The results based on the 95th percentile queue rating indicated that queues will increase by one vehicle on the northbound approach at each location in the worst-case PM peak hour when comparing the year 2026 background and total traffic scenarios.

Traffic queues on the NW Larsen Drive stop approaches to Pacific Highway will not exceed one to two vehicles in the AM & PM peak hours.

The LOS reports containing the queue results are contained in the appendix.

SIGHT DISTANCE

Sight distance at the proposed accesses on NW Larsen Drive was reviewed in accordance with the AASHTO standards. Using the local street travel speed of 25 MPH an intersection sight distance of 280 feet is required in both directions. The length of sight distance was determined to exceed 300 feet in each direction at both locations. Therefore, the intersection sight distance standard will be met.

LEFT TURN LANE REQUIREMENTS

Separate southbound left turn lanes are not warranted on NW Larsen Drive at the site access points due to the low volumes (less than 70 vehicles) in the peak hours.

Left turn lane needs were evaluated for the peak hour conditions at the Pacific Highway intersections with NW Larsen Drive, NW 10th Street, and NW 5th Street. The turn lane did not meet the warrant at any of the intersections. The warrant curve results (Exhibit 1310-7a, WSDOT Design Manual) are included in the appendix.

TRAFFIC SIGNAL WARRANTS

The peak hour signal warrant was evaluated for the stop-controlled study intersections on Pacific Highway and on Lacenter Road. The peak hour warrant data is included in the appendix.

The intersections of Pacific Highway at Timmen Road and Lacenter Road at Paradise Park Road met the peak hour signal warrant in the PM peak hour for the existing, year 2026 background, and year 2026 total traffic scenarios. Therefore, the signal need is not attributed to the development and is not proposed in conjunction with the project. According to WSDOT's Six Year TIP for 2016-2021 traffic signals are planned at these locations.

Traffic signals are not warranted at the other study intersections.

ACCIDENT HISTORY

Crash data for the study intersections on Pacific Highway and Lacenter Road was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest available data covered the years 2018-2022.

The accident rates presented in Table 3 below are based on the number of accidents per million entering vehicles (MEV) per year. Typically, an intersection is not considered unsafe unless the crash rate exceeds the threshold value of 1.0 accidents per MEV.

Table 3 Crash Rate Results

Intersection	Crash History (Years)	Number of Crashes	Crashes per year	Annual Traffic Entering (veh/yr)	Crash rate per M.E.V.*
Pacific Hwy and NW Larsen Dr	5	7	1.4	2841567	**0.49**
Pacific Hwy and W 10th St	5	1	0.2	3159326	**0.06**
Pacific Hwy and W 5th St	5	0	0.0	3225069	**0.00**
NW La Center Rd and Timmen Rd	5	7	1.4	6596234	**0.21**
NW La Center Rd and Paradise Park Rd	5	2	0.4	5288675	**0.08**

* M.E.V. - million entering vehicles.

None of the intersections experienced a crash rate above 0.49 crashes per MEV per year indicating safety mitigation is not necessary.

PEDESTRIANS, BICYCLES, & BUSES

Sidewalk will be provided on the east side of NW Larsen Drive along the development's property frontage and on both sides of the streets (NW 13th Way & NW 11th Street) constructed internally within site's property. The new sidewalk will provide safe pedestrian connectivity from the property site to the existing sidewalk system.

No bicycle lanes are provided in the area. No bike lanes are planned with the project.

C-Tran provides limited service to La Center with the Connector route which runs on weekdays only. The service operates between downtown La Center with a stop at the 4th Street Park & Ride to the 99th Street Transit Center in Vancouver.

SUMMARY AND RECOMMENDATIONS

The traffic study for Larsen Drive Subdivision has been prepared to determine the potential impacts at the site access points on Larsen Drive and several study intersections along Pacific Highway and Lacenter Road. Development of the site includes 41 single-family housing units. The trip generation is projected to be 389 daily trips with 29 AM peak hour trips and 39 PM peak hour trips.

Sight distance at the proposed accesses on NW Larsen Drive was reviewed in accordance with the AASHTO standards and based on a local street speed of 25 MPH an intersection sight distance of 280 feet is required in both directions. The length of sight distance was determined to exceed 300 feet in each direction at both locations. Therefore, the intersection sight distance standard will be met. The sight distance standards shall be maintained for safety purposes and potential obstruction to the sightlines by vegetation, walls, parking, signing, buildings or other items must be avoided.

The study intersections on Pacific Highway at NW Larsen Drive, West 10th Street, and West 5th Street will operate at acceptable LOS `C` or better through the year 2026 total traffic scenario. No mitigation is necessary at these locations. Two-Way traffic volumes at the site access locations along NW Larsen Drive will be less than 70 vehicles in the peak hours resulting in LOS `A` operations.

Lacenter Road at NW Timmen Road currently operates at LOS `D`. For the year 2026 background and total traffic scenarios it will experience failing conditions (LOS `F`) during the PM peak hour. In the future the intersection will become signalized or a roundabout will be constructed according to the City's Capital Facilities Plan. With either improvement the intersection will operate at acceptable LOS `B`. As a dedicated improvement is planned and the failing condition occurs due to background traffic, no intersection improvements are necessary in conjunction with the proposed development.

Lacenter Road at NW Paradise Park Road currently operates at LOS `D`. For the year 2026 background and total traffic scenarios it will experience failing conditions (LOS `F`) in the PM peak hour. In the future the intersection will become signalized according to the City's Capital Facilities Plan and operate at acceptable LOS `B`. As a dedicated improvement is planned and the failing condition occurs due to background traffic, no intersection improvements are necessary in conjunction with the proposed development.

Queue length demand for the proposed site accesses on NW Larsen Drive will be minimal at one to two cars on the stop-controlled approaches. This determination is based on the low traffic conditions projected along NW Larsen Drive (two-way volumes less than 70 vehicles in the peak hours).

Traffic queuing on the stop-controlled approaches to Lacenter Road at Paradise Park Road and at Timmen Road was determined with the capacity analyses. The results indicated that queues will increase by one vehicle on the northbound approach at each location in the

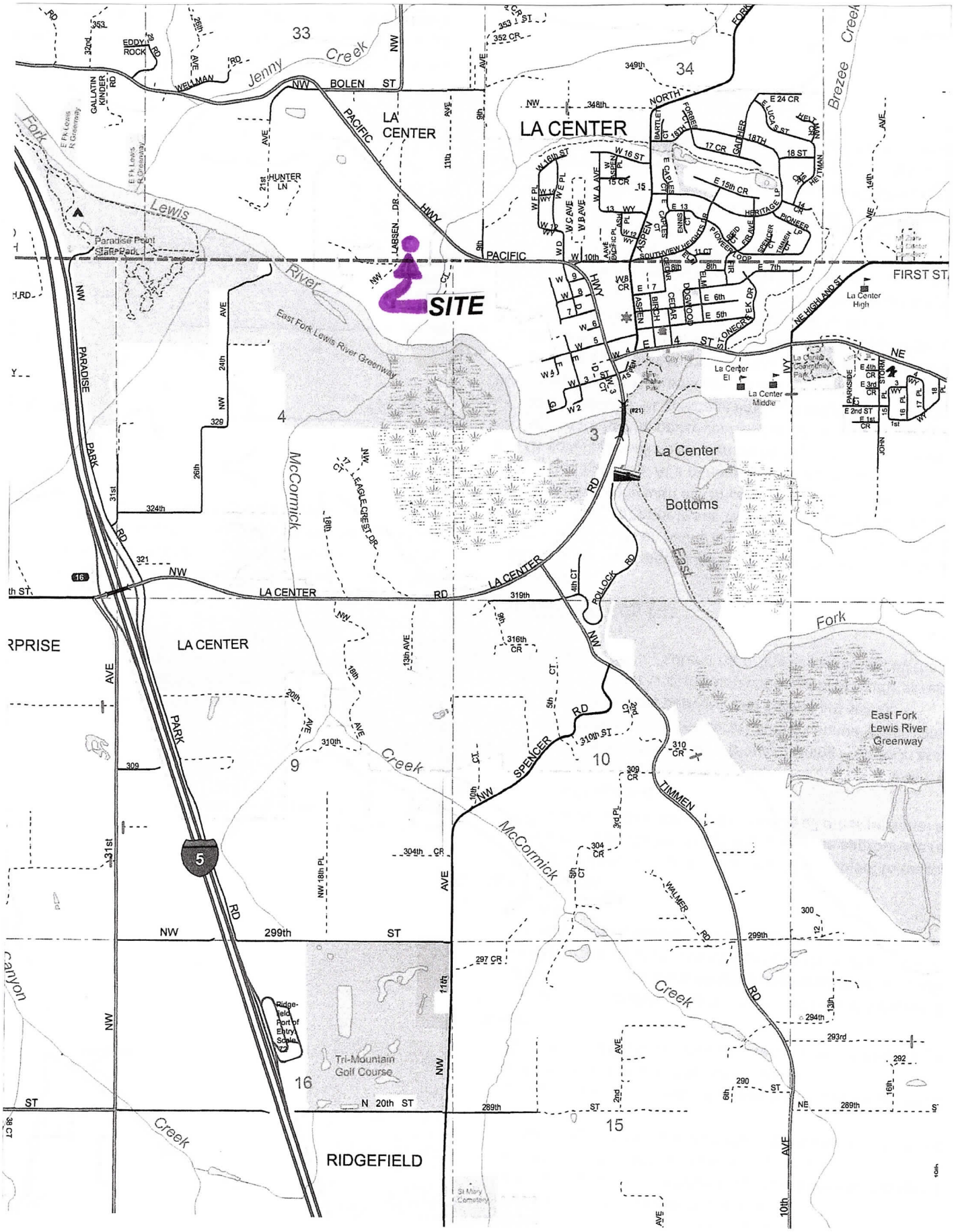
worst-case PM peak hour when comparing the year 2026 background and total traffic scenarios. Traffic queues on the NW Larsen Drive stop approaches to Pacific Highway will not exceed one to two vehicles in the AM & PM peak hours.

Crash data for the study intersections was obtained from WSDOT staff and reviewed to identify potential safety issues. The latest five years of available data was reviewed. None of the intersection crash rates exceed 0.49 accidents per MEV per year indicating safety mitigation is not necessary.

Based on evaluation of the study intersections no intersection improvements beyond those planned at the site accesses and street frontage are required in conjunction with the proposed development. The site accesses to NW Larsen Drive will require stop sign control and inclusion of stop bar pavement markings.

APPENDIX

- Vicinity Map — Figure 'a'
- Site Plan — Figure 'b'
- Existing Lane Configurations and Traffic Control — Figure 'c1'
- Proposed Lane Configurations and Traffic Control — Figure `c2`
- Traffic Flow Diagrams
  - Figures 1a & 1b — 2023 Existing Traffic (AM & PM Peak Hours)
  - Figures 2a & 2b — In-Process Traffic (AM & PM Peak Hours)
  - Figures 3a & 3b — 2026 Background Traffic (AM & PM Peak Hours)
  - Figure 4 — Trip Distribution
  - Figures 5a & 5b — Trip Assignment (AM & PM Peak Hours)
  - Figures 6a & 6b — 2026 Total Traffic (AM & PM Peak Hours
- Traffic Count Data
- In-Process Traffic
- Right Turn Lane Adjustment Worksheet
- Left Turn Lane Warrant Worksheets
- Peak Hour Signal Warrant
- Crash History Summary (furnished by WSDOT)
- Synchro v11.1 Capacity Analysis Worksheets



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC

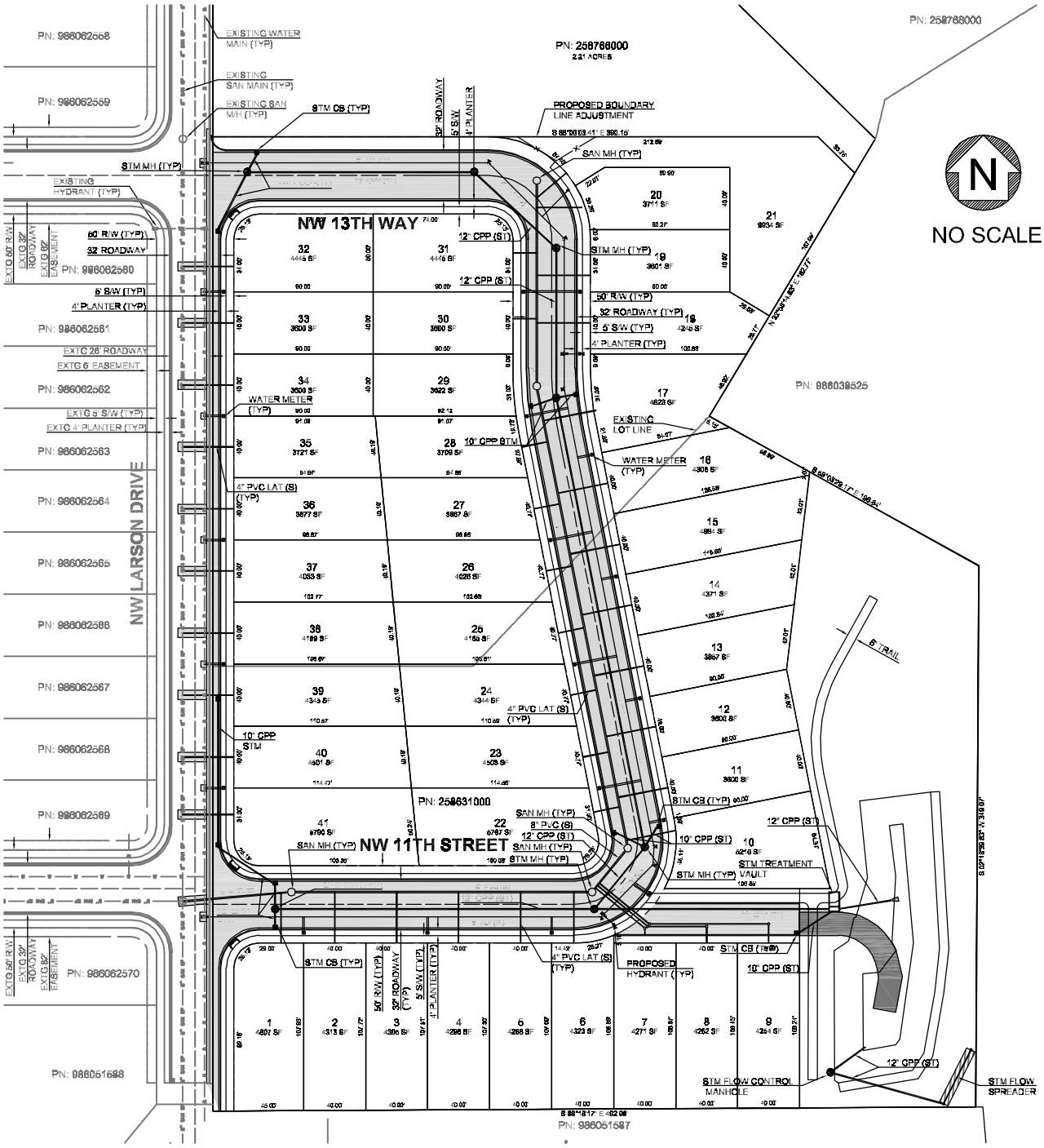
PROJECT: 23-27

NOTES:
NO SCALE

N

VICINITY MAP
LARSEN DRIVE SUBDIVISION

FIGURE
a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

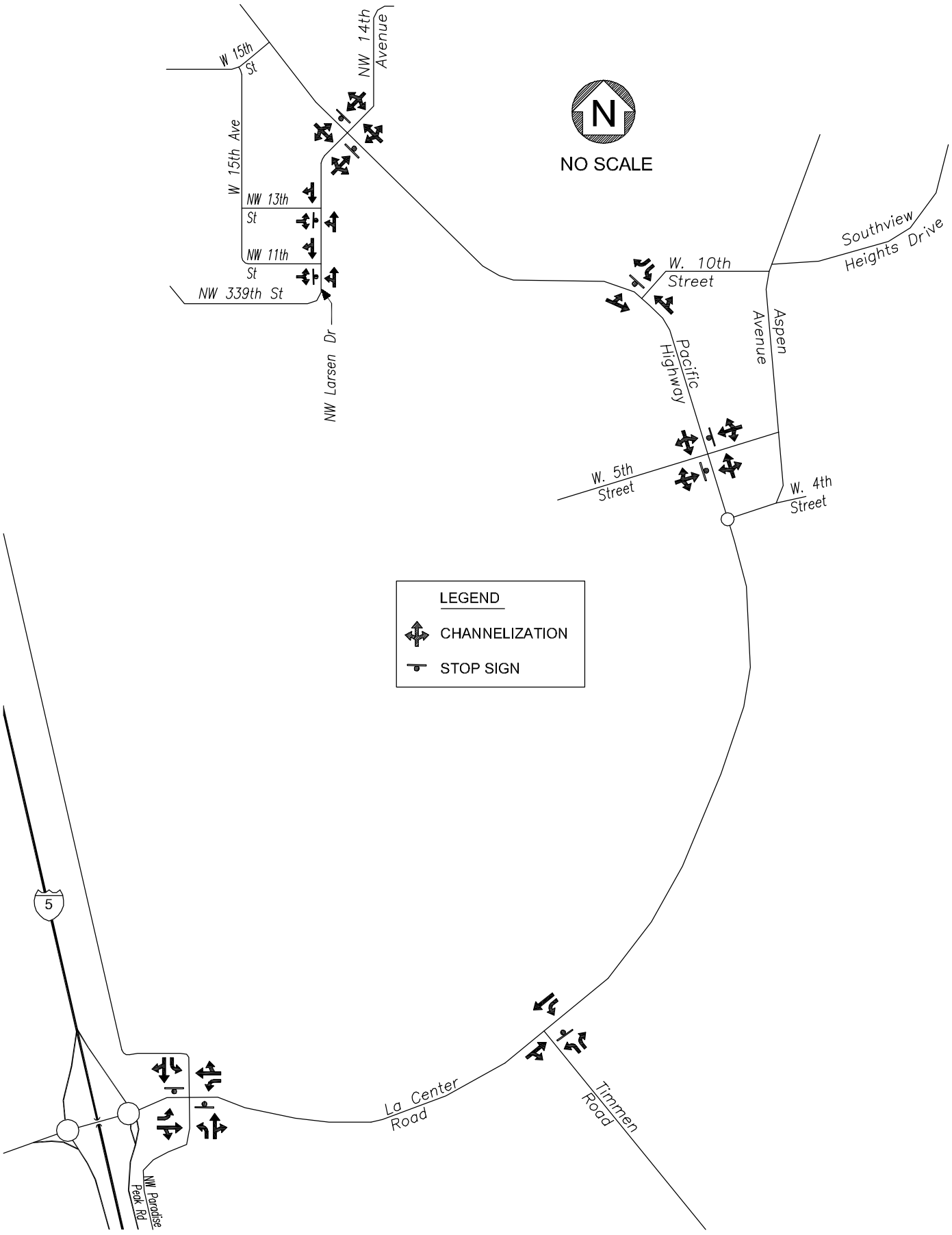
CHARBONNEAU ENGINEERING LLC

PROJECT: 23-27

NOTES:
Site plan prepared by PLS Engineering.

SITE PLAN
LARSEN DRIVE SUBDIVISION

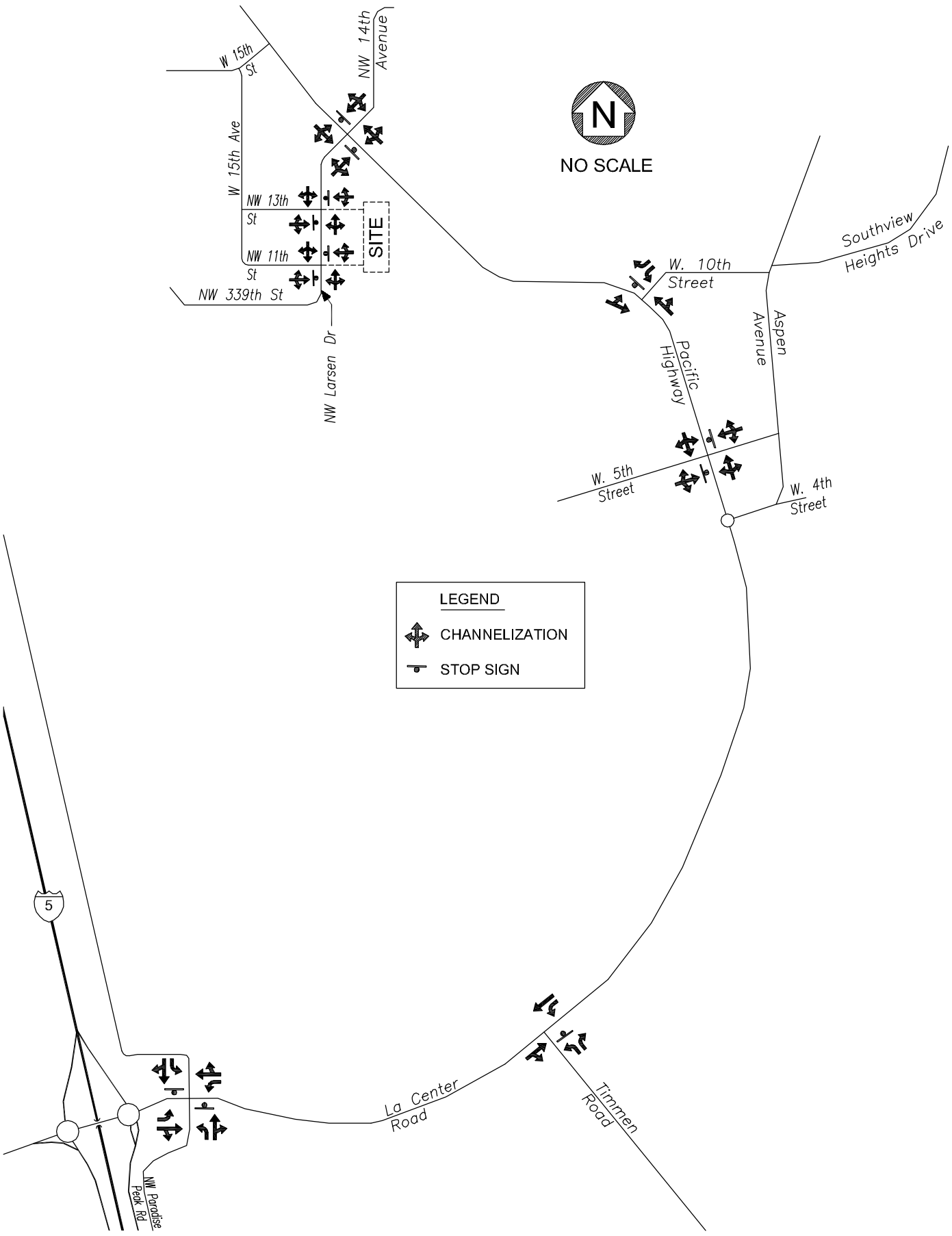
FIGURE
b



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

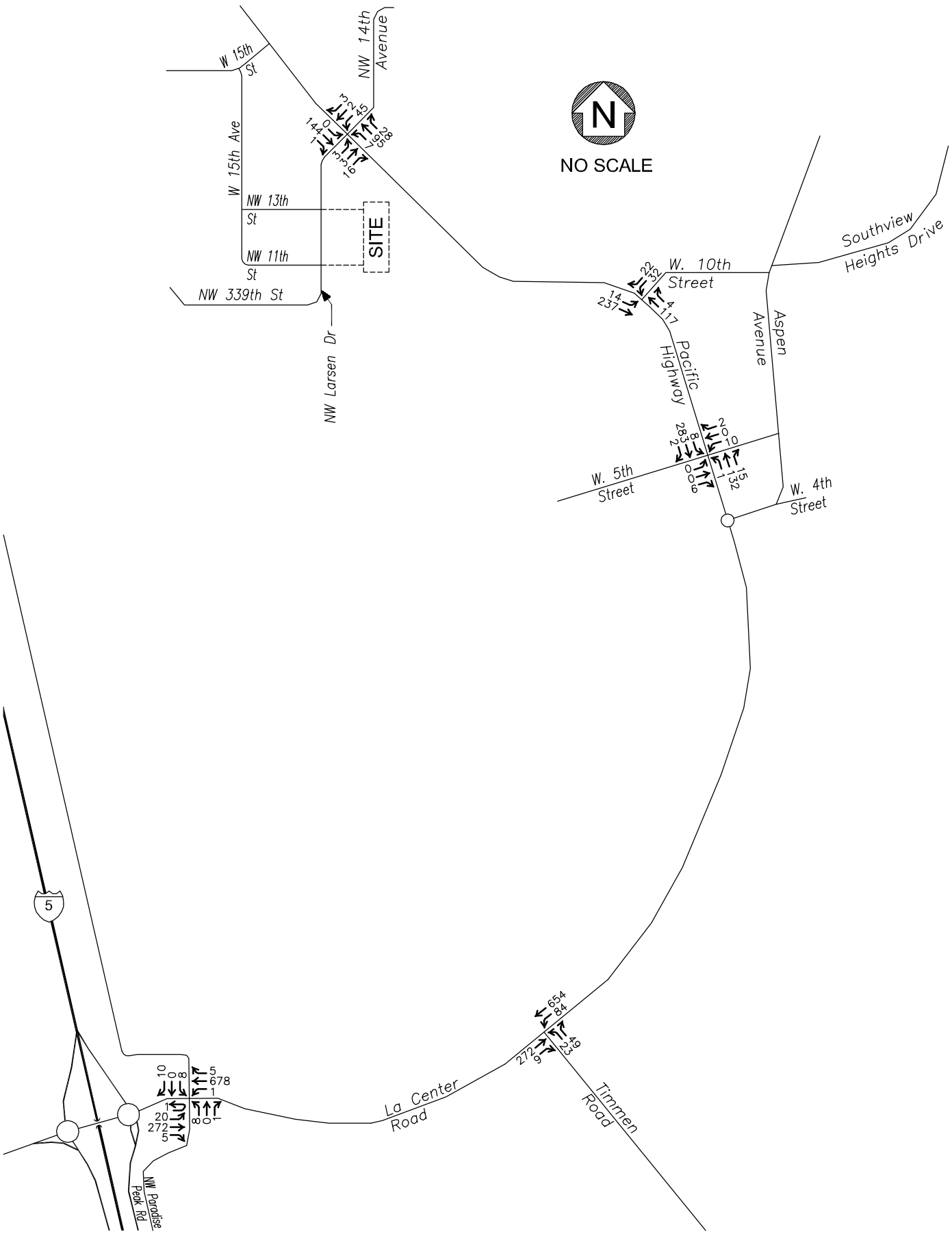
CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES:	EXTG. LANE CONFIGURATIONS AND TRAFFIC CONTROL LARSEN DRIVE SUBDIVISION	FIGURE c1



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

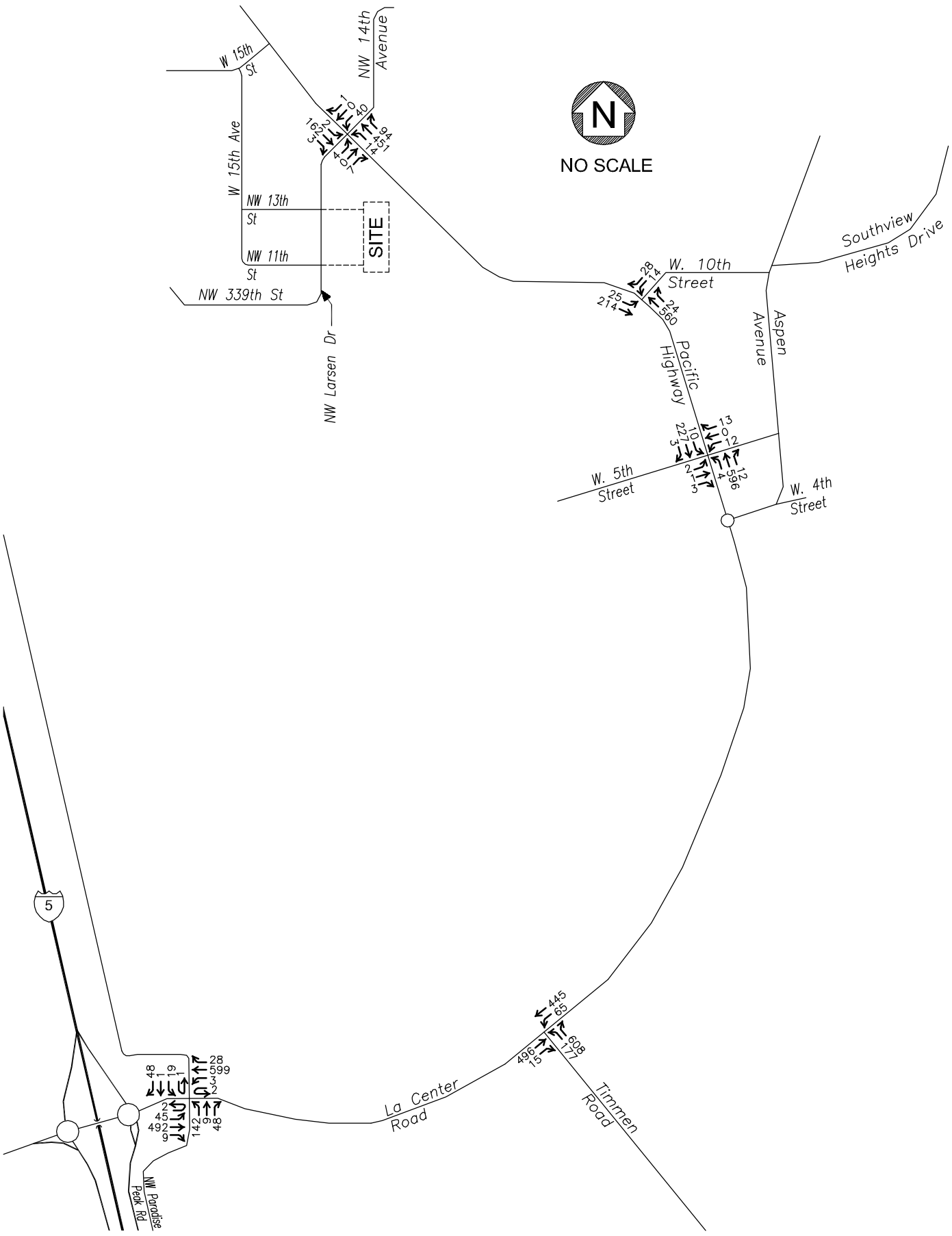
CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES:	PROP. LANE CONFIGURATIONS AND TRAFFIC CONTROL LARSEN DRIVE SUBDIVISION	FIGURE c2



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

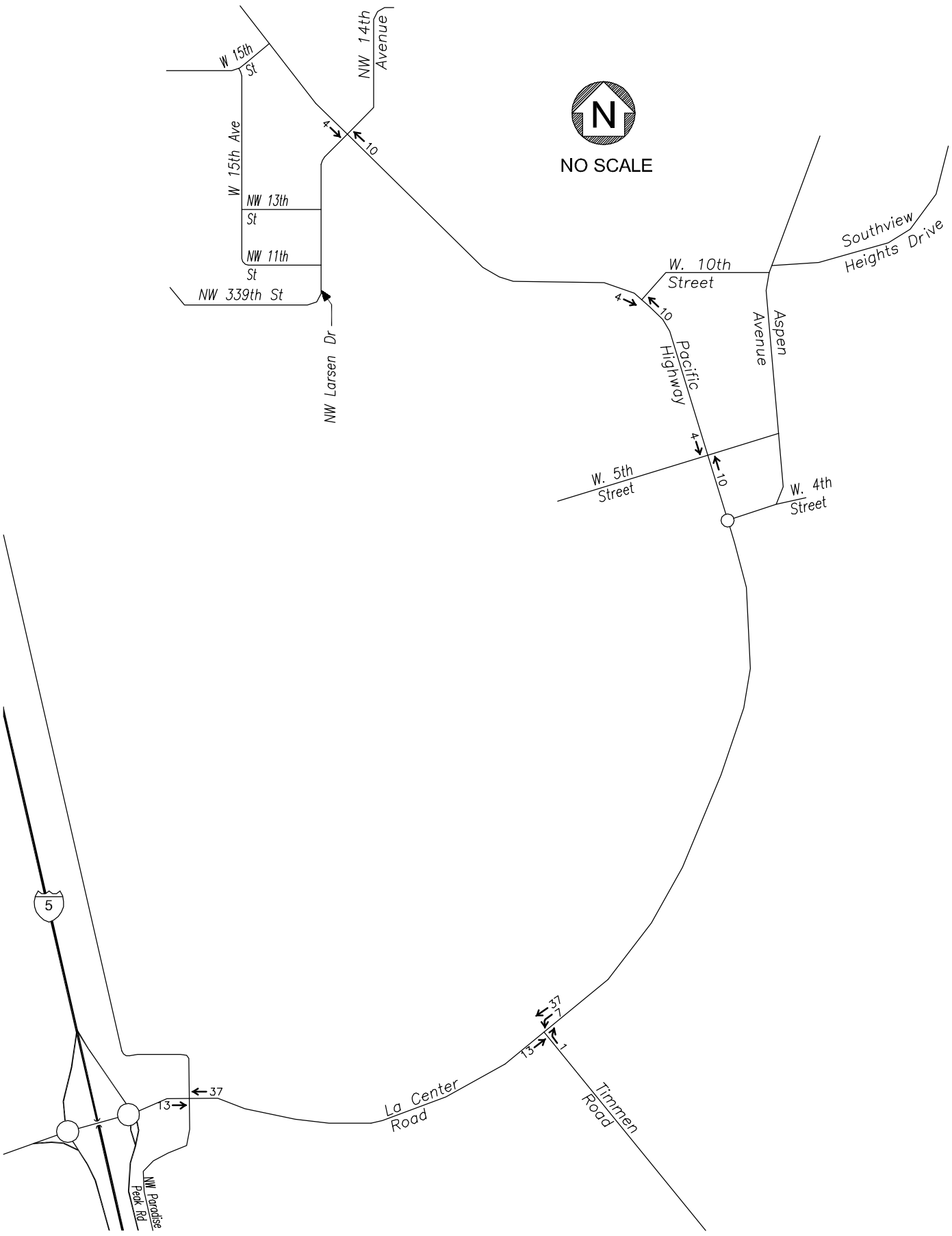
CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES:	2023 EXISTING TRAFFIC AM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 1a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES:	2023 EXISTING TRAFFIC PM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 1b



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

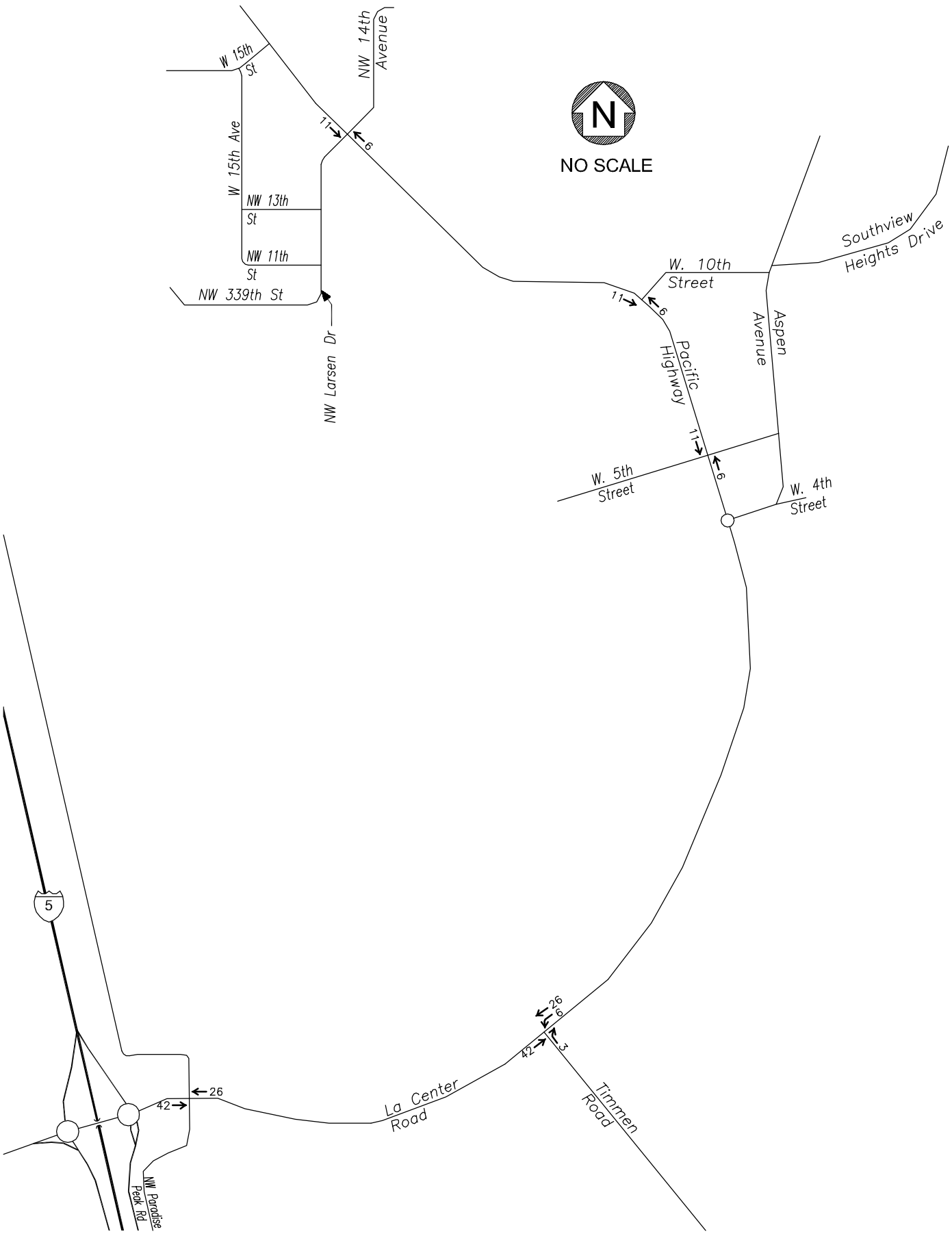
CHARBONNEAU ENGINEERING LLC

PROJECT: 23-27

NOTES: In-process Traffic sites include Lockwood Meadows and Asa's View.

IN-PROCESS TRAFFIC AM PEAK HOUR LARSEN DRIVE SUBDIVISION

FIGURE 2a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

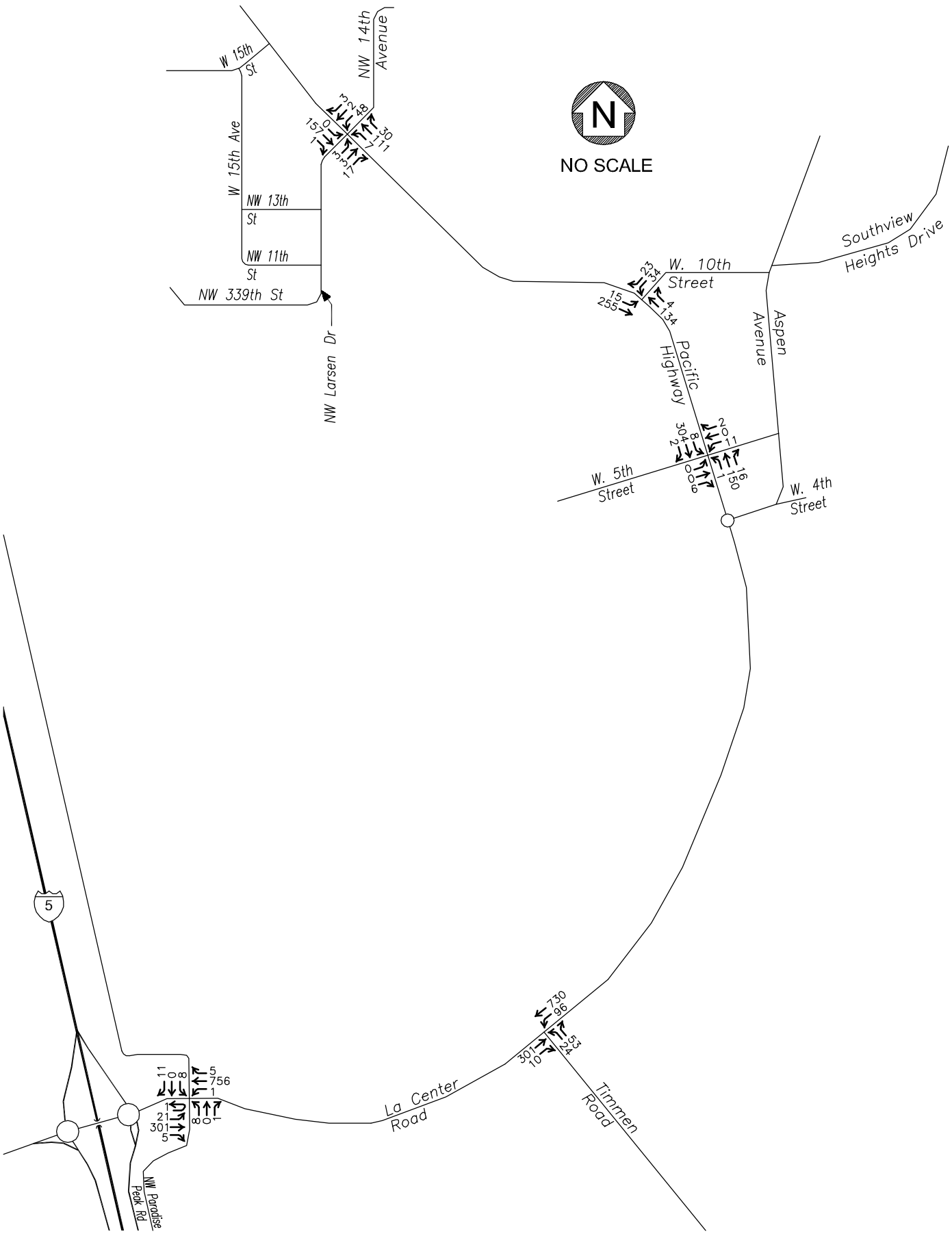
CHARBONNEAU ENGINEERING LLC

PROJECT: 23-27

NOTES: In-process Traffic sites include Lockwood Meadows and Asa's View.

IN-PROCESS TRAFFIC PM PEAK HOUR LARSEN DRIVE SUBDIVISION

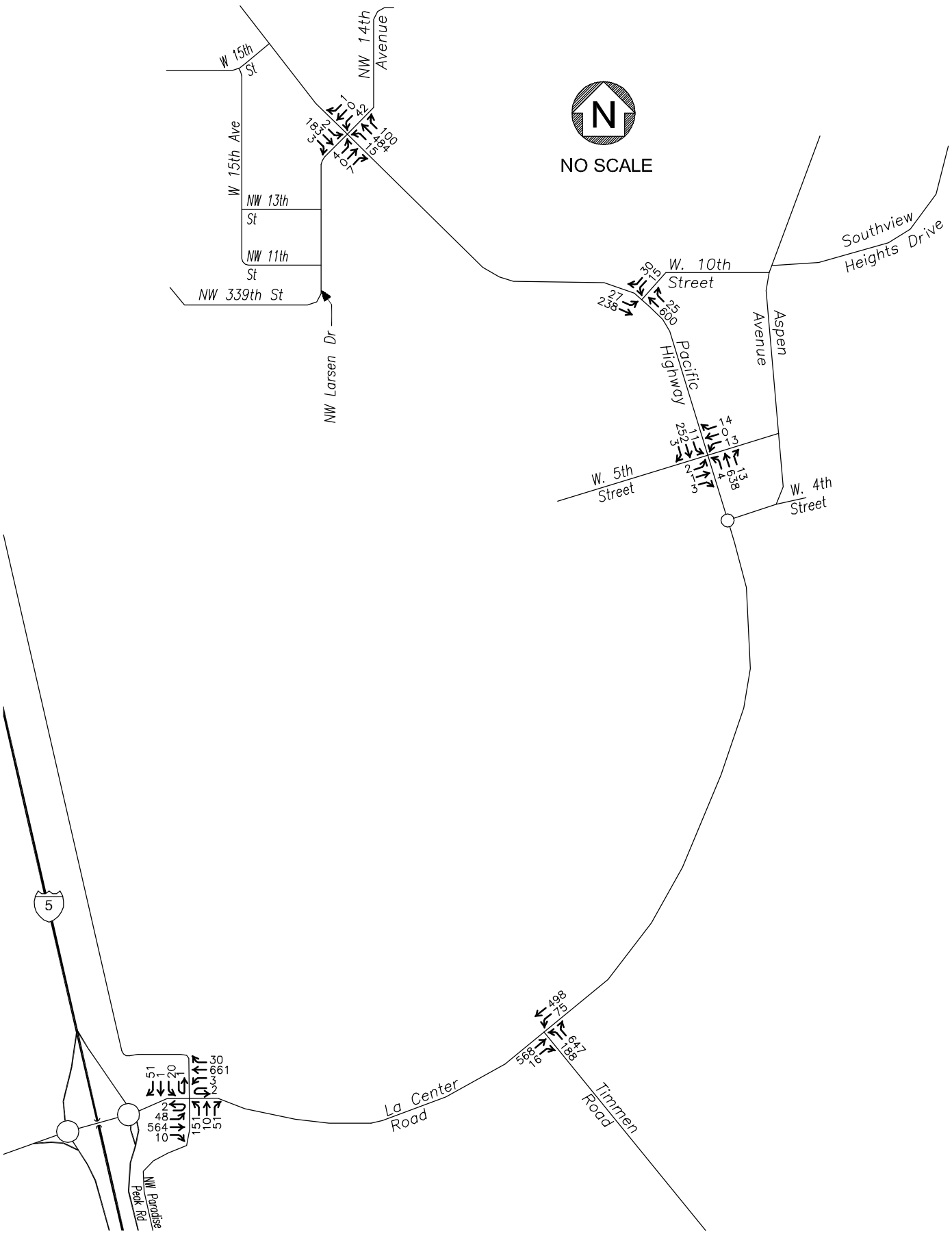
FIGURE 2b



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES: 2026 Background Traffic = 2023 Existing Traffic + growth (2%/yr for 3 years) + In-Process Traffic.	2026 BACKGROUND TRAFFIC AM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 3a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

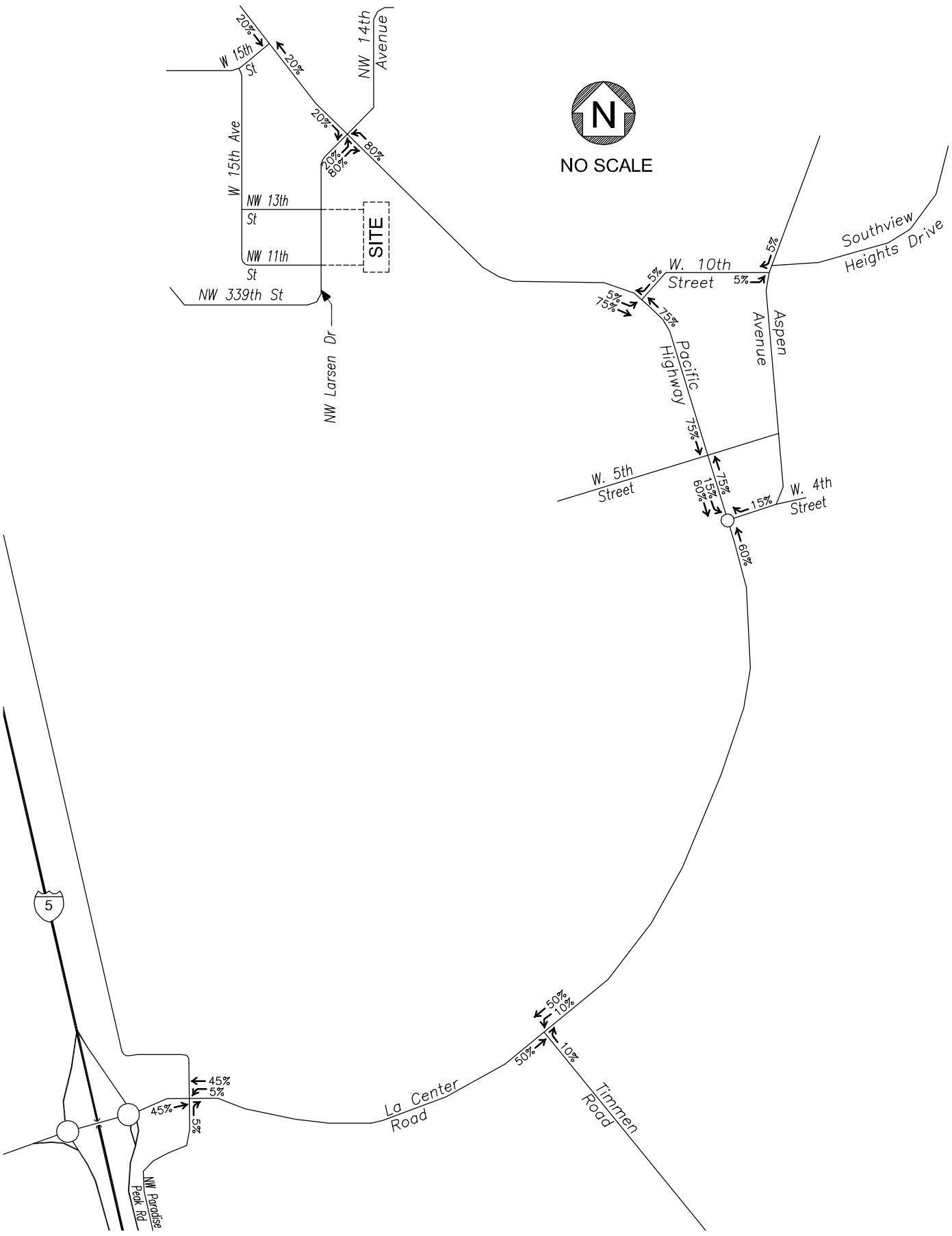
CHARBONNEAU ENGINEERING LLC

PROJECT: 23-27

NOTES: 2026 Background Traffic = 2023 Existing Traffic + growth (2%/yr for 3 years) + In-Process Traffic.

2026 BACKGROUND TRAFFIC PM PEAK HOUR LARSEN DRIVE SUBDIVISION

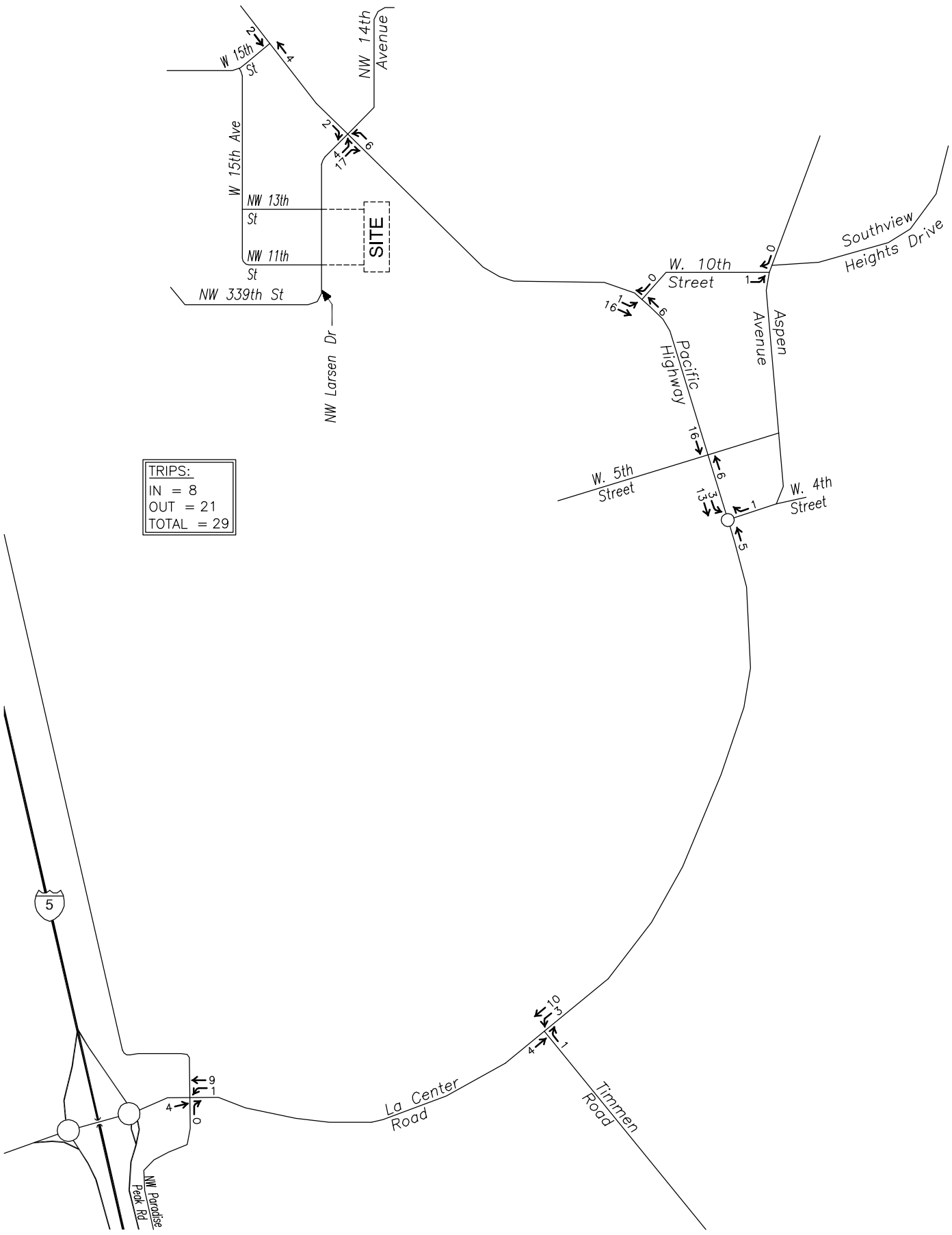
FIGURE 3b



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES: The site's trip distribution is based on engineering judgment.	TRIP DISTRIBUTION AM PEAK HOUR & PM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 4



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC

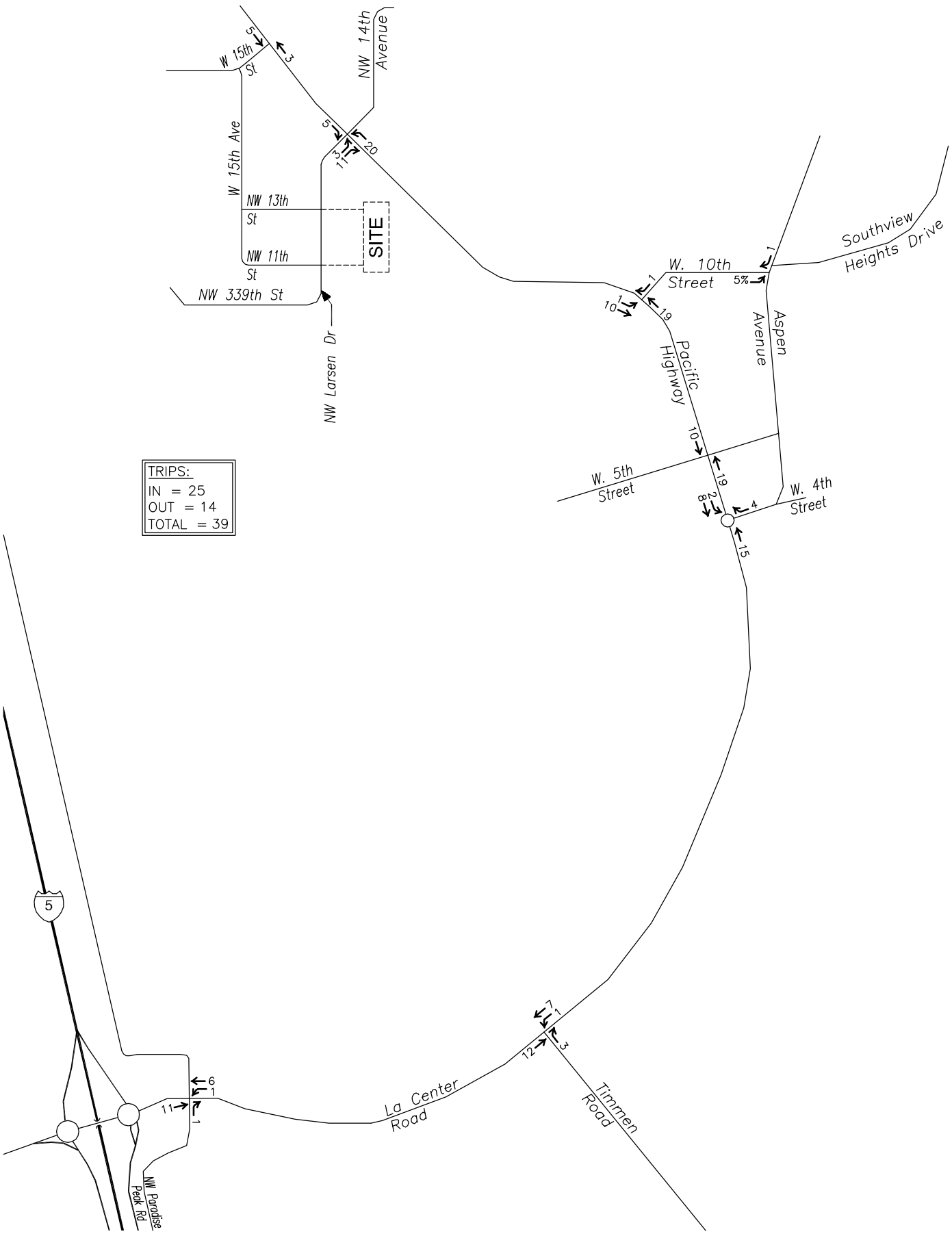
PROJECT: 23-27

NOTES: The site's trip generation is based on Single-Family Detached Housing (ITE 210) trip rates.

TRIP ASSIGNMENT
AM PEAK HOUR
LARSEN DRIVE SUBDIVISION

FIGURE

5a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC

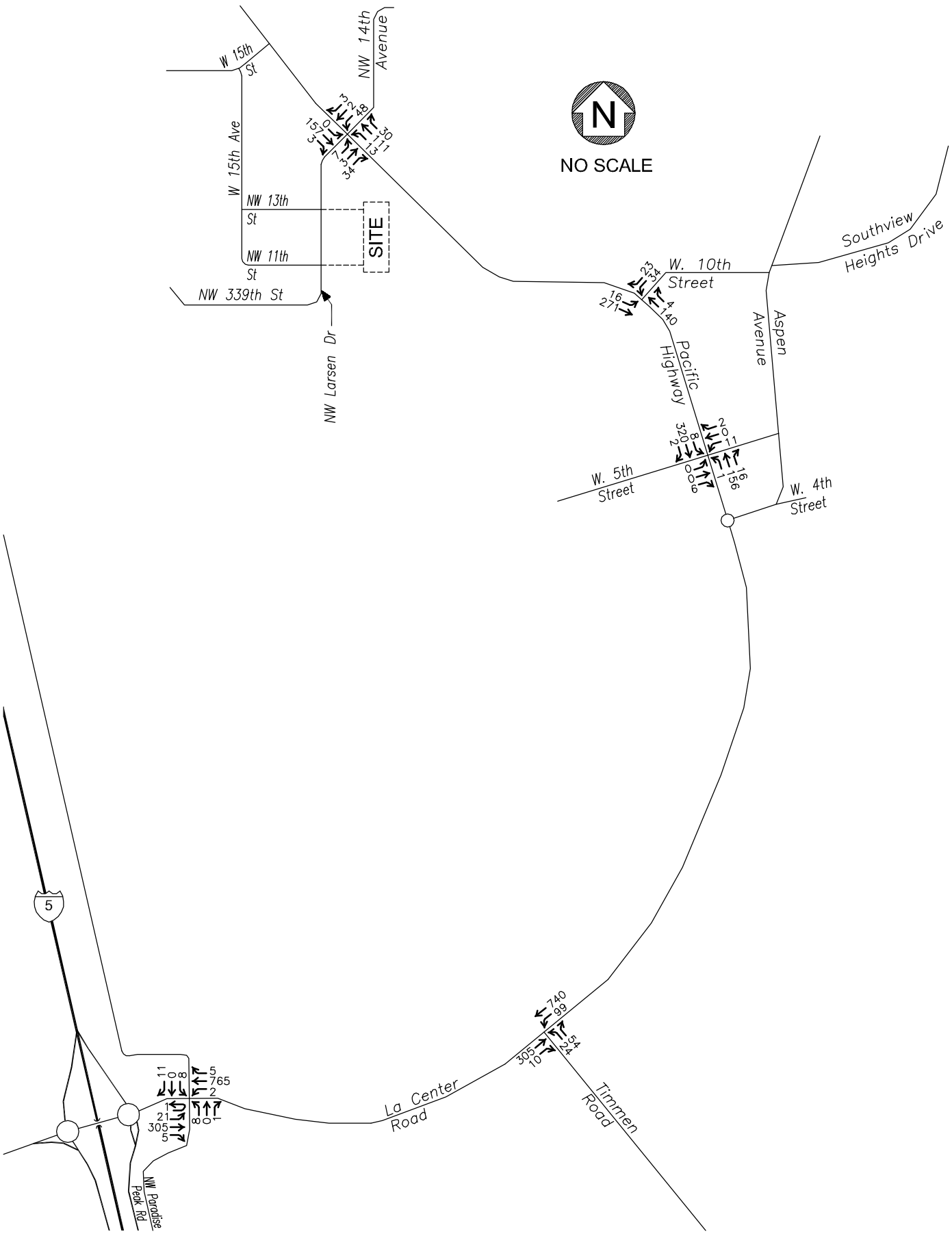
PROJECT: 23-27

NOTES: The site's trip generation is based on Single-Family Detached Housing (ITE 210) trip rates.

TRIP ASSIGNMENT
PM PEAK HOUR
LARSEN DRIVE SUBDIVISION

FIGURE

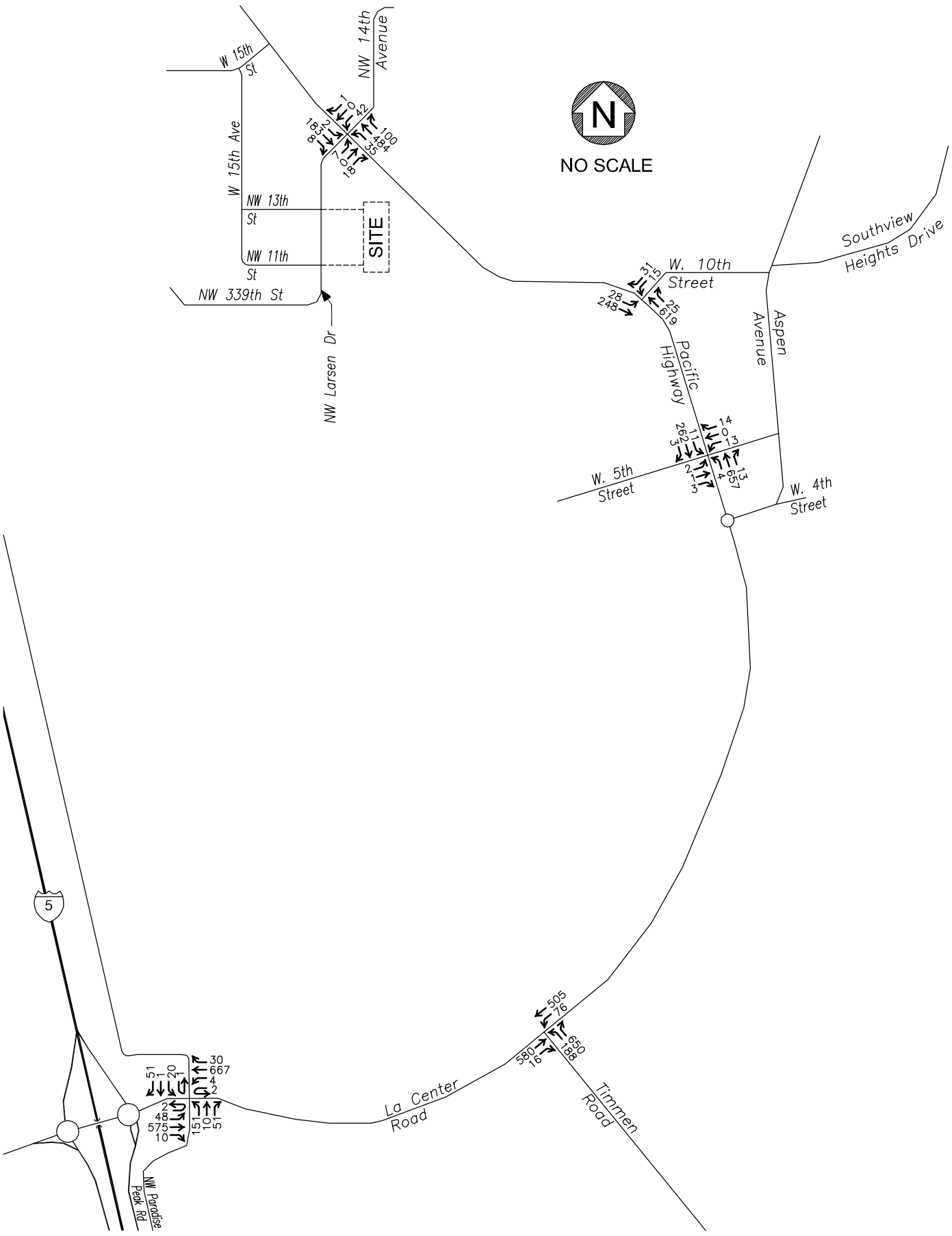
5b



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES: 2026 Total Traffic = 2026 Background Traffic + Trip Assignment.	2026 TOTAL TRAFFIC AM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 6a



FILE NAME: 2327flow.dwg

PLOT DATE: 11.28.23

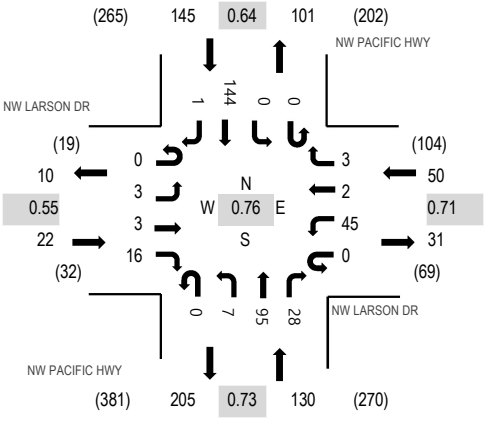
CHARBONNEAU ENGINEERING LLC PROJECT: 23-27	NOTES: 2026 Total Traffic = 2026 Background Traffic + Trip Assignment.	2026 TOTAL TRAFFIC PM PEAK HOUR LARSEN DRIVE SUBDIVISION	FIGURE 6b

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

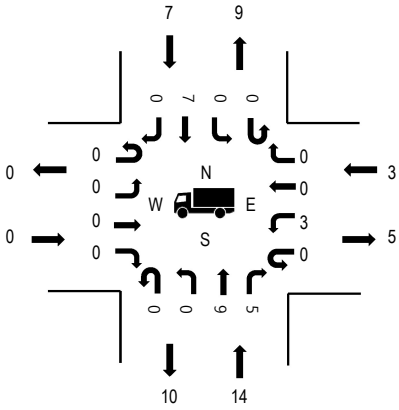
Location: 1 NW PACIFIC HWY & NW LARSON DR AM
Date: Thursday, September 14, 2023
Peak Hour: 07:05 AM - 08:05 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour

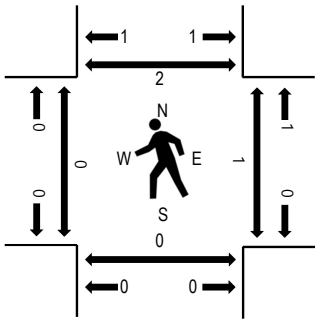
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.55
WB	6.0%	0.71
NB	10.8%	0.73
SB	4.8%	0.64
All	6.9%	0.76

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LARSON DR Eastbound				NW LARSON DR Westbound				NW PACIFIC HWY Northbound				NW PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	2	0	0	0	0	5	4	0	0	6	0	17	342
7:05 AM	0	0	0	2	0	4	0	0	0	0	8	0	0	0	9	0	23	347
7:10 AM	0	1	0	1	0	4	1	0	0	0	3	3	0	0	9	0	22	343
7:15 AM	0	0	1	2	0	3	0	0	0	0	6	2	0	0	21	0	35	342
7:20 AM	0	1	0	4	0	7	1	0	0	0	8	1	0	0	15	0	37	337
7:25 AM	0	0	0	2	0	1	0	0	0	1	14	3	0	0	20	1	42	326
7:30 AM	0	1	0	2	0	4	0	0	0	0	6	5	0	0	16	0	34	315
7:35 AM	0	0	0	2	0	6	0	0	0	1	11	1	0	0	15	0	36	314
7:40 AM	0	0	0	0	0	3	0	1	0	1	8	2	0	0	12	0	27	313
7:45 AM	0	0	0	0	0	5	0	1	0	1	11	3	0	0	4	0	25	318
7:50 AM	0	0	1	0	0	4	0	1	0	1	7	1	0	0	8	0	23	323
7:55 AM	0	0	0	0	0	2	0	0	0	2	7	5	0	0	5	0	21	327
8:00 AM	0	0	1	1	0	2	0	0	0	0	6	2	0	0	10	0	22	329
8:05 AM	0	0	0	1	0	3	0	0	0	0	6	3	0	0	6	0	19	
8:10 AM	0	0	0	1	0	3	1	0	0	1	6	2	0	0	7	0	21	
8:15 AM	0	0	0	2	0	8	0	0	0	1	4	6	0	0	9	0	30	
8:20 AM	0	0	0	1	0	5	0	0	0	0	9	2	0	0	9	0	26	
8:25 AM	0	0	0	1	0	7	0	0	0	1	7	0	0	1	14	0	31	
8:30 AM	0	0	0	1	0	5	0	0	0	0	9	1	0	0	17	0	33	
8:35 AM	0	0	0	1	0	4	1	0	0	0	13	4	0	0	12	0	35	
8:40 AM	0	0	0	2	0	4	0	0	0	2	10	2	0	1	11	0	32	
8:45 AM	0	0	0	0	0	3	0	0	0	1	12	4	0	1	9	0	30	
8:50 AM	0	0	0	0	0	3	1	0	0	0	11	1	0	0	11	0	27	
8:55 AM	0	0	0	0	0	3	0	1	0	0	8	5	0	1	5	0	23	
Count Total	0	3	3	26	0	95	5	4	0	13	195	62	0	4	260	1	671	
Peak Hour	0	3	3	16	0	45	2	3	0	7	95	28	0	0	144	1	347	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

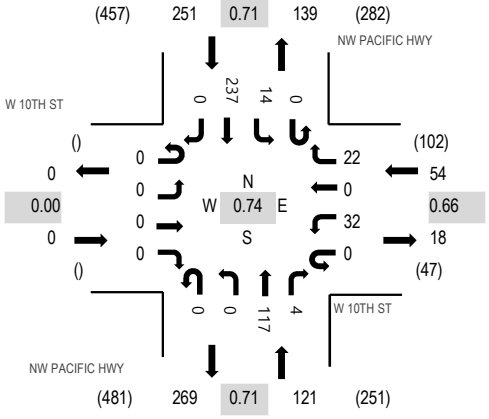
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	1	0	1	2	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	1	1	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	3	1	2	6	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	2	0	0	2	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	1	1	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	1	1
7:35 AM	0	1	0	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	1	1	1	3	7:40 AM	0	0	0	0	0	7:40 AM	0	0	1	1	2
7:45 AM	0	2	0	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	1	1	0	2	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	3	0	0	3	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	2	0	1	3	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	1	1	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	1	0	2	3	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	1	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	0	2	3	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	1	0	1	2	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	1	0	1	2	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	2	0	1	3	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	1	2	0	3	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	1	1	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	1	1	0	2	8:55 AM	0	0	0	0	0	8:55 AM	0	0	1	0	1
Count Total	1	25	7	16	49	Count Total	0	0	0	0	0	Count Total	0	0	2	2	4
Peak Hour	0	14	3	7	24	Peak Hour	0	0	0	0	0	Peak Hour	0	0	1	2	3

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

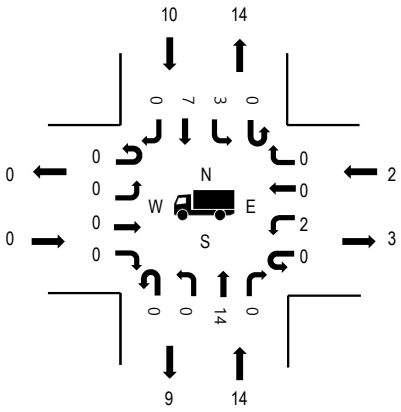
Location: 2 NW PACIFIC HWY & W 10TH ST AM
Date: Thursday, September 14, 2023
Peak Hour: 07:05 AM - 08:05 AM
Peak 15-Minutes: 07:25 AM - 07:40 AM

Peak Hour

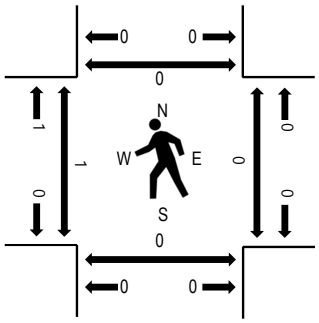
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	3.7%	0.66
NB	11.6%	0.71
SB	4.0%	0.71
All	6.1%	0.74

Traffic Counts - Motorized Vehicles

Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				NW PACIFIC HWY Northbound				NW PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	3	0	0	0	0	10	0	0	1	6	0	20	421
7:05 AM	0	0	0	0	0	1	0	1	0	0	6	0	0	4	16	0	28	426
7:10 AM	0	0	0	0	0	3	0	0	0	0	8	1	0	0	17	0	29	424
7:15 AM	0	0	0	0	0	2	0	0	0	0	10	0	0	1	27	0	40	419
7:20 AM	0	0	0	0	0	6	0	0	0	0	11	0	0	2	23	0	42	416
7:25 AM	0	0	0	0	0	4	0	2	0	0	12	0	0	1	30	0	49	405
7:30 AM	0	0	0	0	0	6	0	4	0	0	11	0	0	1	27	0	49	387
7:35 AM	0	0	0	0	0	1	0	2	0	0	13	0	0	2	27	0	45	387
7:40 AM	0	0	0	0	0	1	0	2	0	0	8	1	0	0	23	0	35	380
7:45 AM	0	0	0	0	0	0	0	4	0	0	10	0	0	1	11	0	26	386
7:50 AM	0	0	0	0	0	3	0	2	0	0	12	0	0	0	12	0	29	395
7:55 AM	0	0	0	0	0	5	0	1	0	0	9	1	0	0	13	0	29	392
8:00 AM	0	0	0	0	0	0	0	4	0	0	7	1	0	2	11	0	25	389
8:05 AM	0	0	0	0	0	2	0	2	0	0	7	0	0	1	14	0	26	
8:10 AM	0	0	0	0	0	0	0	3	0	0	7	0	0	0	14	0	24	
8:15 AM	0	0	0	0	0	1	0	3	0	0	8	1	0	1	23	0	37	
8:20 AM	0	0	0	0	0	3	0	1	0	0	9	1	0	1	16	0	31	
8:25 AM	0	0	0	0	0	2	0	2	0	0	10	0	0	0	17	0	31	
8:30 AM	0	0	0	0	0	3	0	2	0	0	9	2	0	3	30	0	49	
8:35 AM	0	0	0	0	0	2	0	1	0	0	14	1	0	2	18	0	38	
8:40 AM	0	0	0	0	0	1	0	2	0	0	13	4	0	3	18	0	41	
8:45 AM	0	0	0	0	0	3	0	5	0	0	12	2	0	2	11	0	35	
8:50 AM	0	0	0	0	0	1	0	2	0	0	8	0	0	2	13	0	26	
8:55 AM	0	0	0	0	0	3	0	1	0	0	12	0	0	2	8	0	26	
Count Total	0	0	0	0	0	56	0	46	0	0	236	15	0	32	425	0	810	
Peak Hour	0	0	0	0	0	32	0	22	0	0	117	4	0	14	237	0	426	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

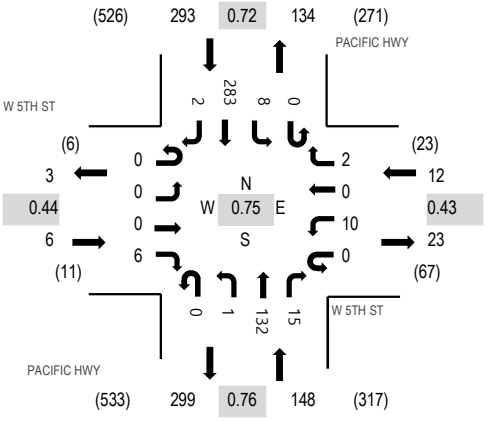
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	1	0	2	3	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	2	0	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	3	0	2	5	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	2	0	1	3	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	1	1	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	1	0	1	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	1	0	1	2	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	2	0	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	2	0	1	3	7:50 AM	0	0	0	0	0	7:50 AM	1	0	0	0	1
7:55 AM	0	2	0	0	2	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	1	0	1	2	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	2	0	1	3	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	1	0	1	2	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	1	0	1	2	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	0	0	2	2	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	1	0	2	3	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	1	0	1	2	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	1	1	0	2	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	1	1	2	4	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	2	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	1	0	1	2	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	0	24	4	24	52	Count Total	0	0	0	0	0	Count Total	1	0	0	0	1
Peak Hour	0	14	2	10	26	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

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

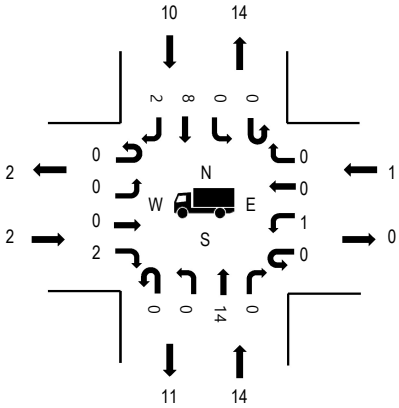
Location: 3 PACIFIC HWY & W 5TH ST AM
Date: Thursday, September 14, 2023
Peak Hour: 07:05 AM - 08:05 AM
Peak 15-Minutes: 07:25 AM - 07:40 AM

Peak Hour

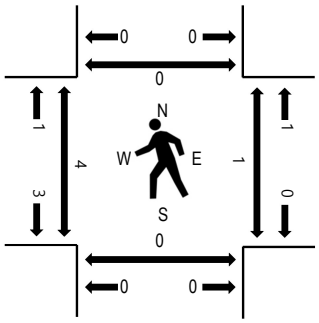
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	33.3%	0.44
WB	8.3%	0.43
NB	9.5%	0.76
SB	3.4%	0.72
All	5.9%	0.75

Traffic Counts - Motorized Vehicles

Interval Start Time	W 5TH ST Eastbound				W 5TH ST Westbound				PACIFIC HWY Northbound				PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	8	0	18	455
7:05 AM	0	0	0	0	0	2	0	0	0	0	7	1	0	0	16	0	26	459
7:10 AM	0	0	0	0	0	1	0	0	0	0	9	1	0	1	20	1	33	458
7:15 AM	0	0	0	1	0	2	0	0	0	0	10	1	0	1	25	0	40	452
7:20 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	33	1	46	448
7:25 AM	0	0	0	1	0	0	0	0	0	0	15	0	0	1	32	0	49	439
7:30 AM	0	0	0	2	0	1	0	2	0	0	10	0	0	0	33	0	48	430
7:35 AM	0	0	0	0	0	4	0	0	0	0	11	4	0	0	36	0	55	426
7:40 AM	0	0	0	2	0	0	0	0	0	0	15	1	0	2	24	0	44	415
7:45 AM	0	0	0	0	0	0	0	0	0	1	10	1	0	1	16	0	29	416
7:50 AM	0	0	0	0	0	0	0	0	0	0	14	1	0	1	13	0	29	422
7:55 AM	0	0	0	0	0	0	0	0	0	0	14	2	0	1	21	0	38	425
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	3	0	0	14	0	22	422
8:05 AM	0	0	0	0	0	1	0	1	0	0	6	1	0	0	16	0	25	
8:10 AM	0	0	0	1	0	0	0	0	0	0	9	2	0	0	15	0	27	
8:15 AM	0	0	0	0	0	0	0	0	0	0	10	3	0	0	23	0	36	
8:20 AM	0	0	0	1	0	1	0	0	0	0	9	1	0	2	22	1	37	
8:25 AM	0	0	0	1	0	0	0	0	0	0	16	4	0	2	17	0	40	
8:30 AM	0	0	0	0	0	1	1	1	0	0	8	2	0	1	30	0	44	
8:35 AM	0	0	0	1	0	1	0	1	0	0	14	2	0	1	24	0	44	
8:40 AM	0	0	0	1	0	0	0	0	0	0	16	4	0	0	24	0	45	
8:45 AM	0	0	0	0	0	0	0	0	0	0	14	5	1	0	15	0	35	
8:50 AM	0	0	0	0	0	0	0	1	0	1	7	8	0	0	15	0	32	
8:55 AM	0	0	0	0	0	1	0	1	0	0	12	5	0	1	15	0	35	
Count Total	0	0	0	11	0	15	1	7	0	2	263	52	1	15	507	3	877	
Peak Hour	0	0	0	6	0	10	0	2	0	1	132	15	0	8	283	2	459	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

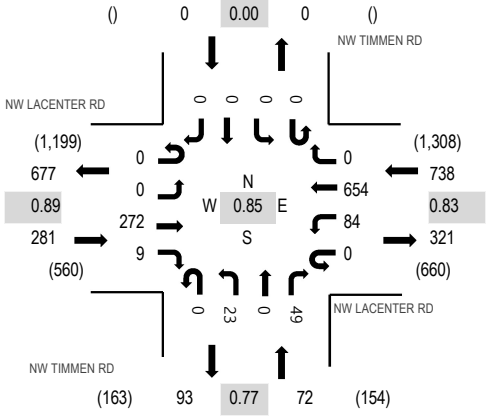
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	1	0	1
7:05 AM	0	2	0	0	2	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	2	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	1	0	0	1	2	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	2	0	1	3	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	1	2	0	1	4	7:25 AM	0	0	0	0	0	7:25 AM	2	0	0	0	2
7:30 AM	0	1	0	2	3	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	1	1	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	2	0	1	3	7:40 AM	0	0	0	0	0	7:40 AM	1	0	0	0	1
7:45 AM	0	1	0	0	1	7:45 AM	0	0	0	0	0	7:45 AM	1	0	1	0	2
7:50 AM	0	2	0	1	3	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	0	0	2	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	1	2	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	2	0	1	3	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	1	0	0	1	8:15 AM	0	0	0	0	0	8:15 AM	3	0	0	0	3
8:20 AM	1	0	0	1	2	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	1	0	2	3	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	2	2	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	2	1	0	3	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	1	0	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	1	0	2	3	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	2	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	1	1	1	3	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	3	23	4	22	52	Count Total	0	0	0	0	0	Count Total	7	0	2	0	9
Peak Hour	2	14	1	10	27	Peak Hour	0	0	0	0	0	Peak Hour	4	0	1	0	5

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

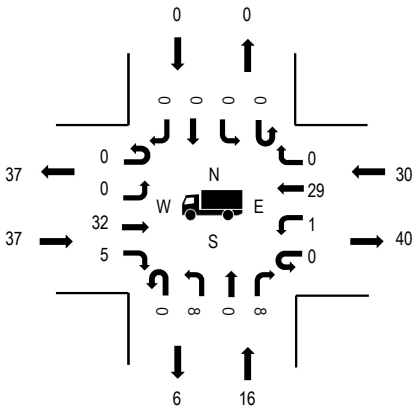
Location: 4 NW TIMMEN RD & NW LACENTER RD AM
Date: Thursday, September 14, 2023
Peak Hour: 07:10 AM - 08:10 AM
Peak 15-Minutes: 07:25 AM - 07:40 AM

Peak Hour

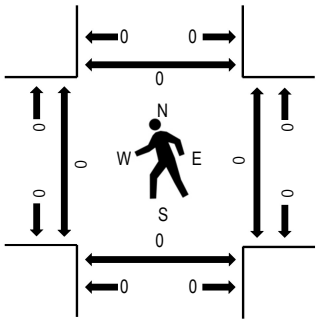
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	13.2%	0.89
WB	4.1%	0.83
NB	22.2%	0.77
SB	0.0%	0.00
All	7.6%	0.85

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW TIMMEN RD Northbound				NW TIMMEN RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	19	0	0	2	36	0	0	1	0	7	0	0	0	0	65	1,081
7:05 AM	0	0	20	0	0	4	42	0	0	1	0	4	0	0	0	0	71	1,086
7:10 AM	0	0	16	1	0	10	54	0	0	2	0	2	0	0	0	0	85	1,091
7:15 AM	0	0	17	3	0	6	66	0	0	0	0	2	0	0	0	0	94	1,078
7:20 AM	0	0	34	1	0	4	52	0	0	0	0	3	0	0	0	0	94	1,057
7:25 AM	0	0	22	1	0	8	65	0	0	2	0	10	0	0	0	0	108	1,038
7:30 AM	0	0	24	0	0	8	64	0	0	5	0	5	0	0	0	0	106	1,008
7:35 AM	0	0	24	0	0	7	72	0	0	2	0	3	0	0	0	0	108	971
7:40 AM	0	0	20	1	0	8	65	0	0	1	0	5	0	0	0	0	100	954
7:45 AM	0	0	25	0	0	9	52	0	0	1	0	4	0	0	0	0	91	949
7:50 AM	0	0	25	1	0	6	40	0	0	5	0	3	0	0	0	0	80	942
7:55 AM	0	0	18	0	0	9	44	0	0	2	0	6	0	0	0	0	79	948
8:00 AM	0	0	21	0	0	6	39	0	0	1	0	3	0	0	0	0	70	941
8:05 AM	0	0	26	1	0	3	41	0	0	2	0	3	0	0	0	0	76	
8:10 AM	0	0	25	1	0	4	37	0	0	1	0	4	0	0	0	0	72	
8:15 AM	0	0	19	2	0	5	42	0	0	0	0	5	0	0	0	0	73	
8:20 AM	0	0	22	0	0	5	44	0	0	0	0	4	0	0	0	0	75	
8:25 AM	0	0	23	1	0	2	43	0	0	2	0	7	0	0	0	0	78	
8:30 AM	0	0	20	3	0	5	38	0	0	0	0	3	0	0	0	0	69	
8:35 AM	0	0	21	1	0	9	49	0	0	0	0	11	0	0	0	0	91	
8:40 AM	0	0	29	1	0	5	50	0	0	3	0	7	0	0	0	0	95	
8:45 AM	0	0	27	0	0	8	45	0	0	2	0	2	0	0	0	0	84	
8:50 AM	0	0	25	0	0	6	43	0	0	2	0	10	0	0	0	0	86	
8:55 AM	0	0	20	0	0	6	40	0	0	1	0	5	0	0	0	0	72	
Count Total	0	0	542	18	0	145	1,163	0	0	36	0	118	0	0	0	0	2,022	
Peak Hour	0	0	272	9	0	84	654	0	0	23	0	49	0	0	0	0	1,091	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

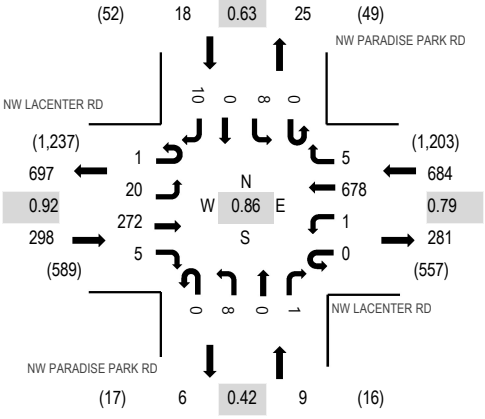
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	3	0	0	5	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	1	0	0	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	2	2	2	0	6	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	3	0	4	0	7	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	7	1	0	0	8	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	2	2	1	0	5	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	6	1	3	0	10	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	2	1	1	0	4	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	3	1	5	0	9	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	4	0	2	0	6	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	2	3	2	0	7	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	1	2	4	0	7	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	2	1	4	0	7	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	3	2	2	0	7	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	2	2	0	0	4	8:10 AM	0	0	0	0	0	8:10 AM	0	0	1	0	1
8:15 AM	4	0	0	0	4	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	1	1	0	3	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	1	1	0	3	8:25 AM	0	0	1	0	1	8:25 AM	0	0	0	0	0
8:30 AM	3	0	1	0	4	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	2	2	2	0	6	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	2	10	0	12	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	5	0	6	0	11	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	2	4	0	6	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	1	1	3	0	5	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	58	31	58	0	147	Count Total	0	0	1	0	1	Count Total	0	0	1	0	1
Peak Hour	37	16	30	0	83	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

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

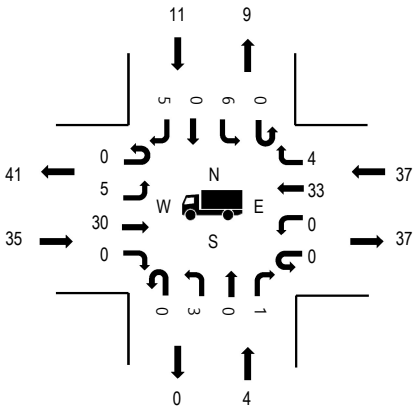
Location: 5 NW PARADISE PARK RD & NW LACENTER RD AM
Date: Thursday, September 14, 2023
Peak Hour: 07:10 AM - 08:10 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour

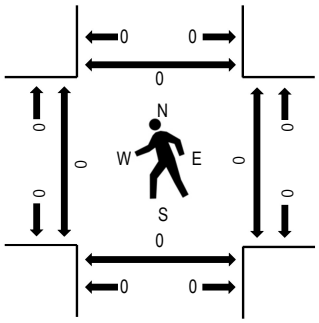
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	11.7%	0.92
WB	5.4%	0.79
NB	44.4%	0.42
SB	61.1%	0.63
All	8.6%	0.86

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW PARADISE PARK RD Northbound				NW PARADISE PARK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	1	3	13	0	0	0	37	0	0	1	0	0	0	1	0	3	59	998
7:05 AM	0	3	22	1	0	0	44	0	0	1	0	0	0	0	0	4	75	1,005
7:10 AM	0	1	18	0	0	0	53	0	0	0	0	0	0	2	0	0	74	1,009
7:15 AM	0	0	23	0	0	0	55	1	0	2	0	0	0	1	0	1	83	1,000
7:20 AM	0	4	25	1	0	0	62	0	0	1	0	0	0	1	0	0	94	979
7:25 AM	0	1	25	0	0	0	62	0	0	2	0	1	0	2	0	1	94	962
7:30 AM	0	1	21	1	0	0	74	0	0	0	0	0	0	0	0	1	98	940
7:35 AM	0	0	23	2	0	0	71	1	0	1	0	0	0	0	0	1	99	910
7:40 AM	1	0	23	0	0	0	70	0	0	1	0	0	0	0	0	1	96	888
7:45 AM	0	2	21	0	0	1	53	1	0	0	0	0	0	0	0	1	79	863
7:50 AM	0	5	28	1	0	0	47	0	0	0	0	0	0	0	0	1	82	875
7:55 AM	0	1	21	0	0	0	41	1	0	0	0	0	0	0	0	1	65	862
8:00 AM	0	1	19	0	0	0	44	0	0	1	0	0	0	0	0	1	66	862
8:05 AM	0	4	25	0	0	0	46	1	0	0	0	0	0	2	0	1	79	
8:10 AM	0	1	24	1	0	0	37	0	0	0	0	1	0	1	0	0	65	
8:15 AM	0	1	22	0	0	0	38	0	0	0	0	0	0	1	0	0	62	
8:20 AM	0	0	24	0	0	0	46	0	0	0	0	0	0	0	0	7	77	
8:25 AM	1	0	23	0	0	0	45	0	0	2	0	0	0	0	0	1	72	
8:30 AM	0	0	23	4	0	0	38	0	0	2	0	0	0	1	0	0	68	
8:35 AM	0	1	25	1	0	0	49	0	0	0	0	0	0	0	0	1	77	
8:40 AM	0	1	26	0	0	0	42	0	0	0	0	0	0	0	0	2	71	
8:45 AM	0	0	31	1	0	0	47	10	0	0	0	0	0	0	0	2	91	
8:50 AM	0	0	20	0	0	0	44	1	0	0	0	0	0	0	0	4	69	
8:55 AM	0	3	13	2	0	0	41	0	0	0	0	0	0	5	1	0	65	
Count Total	3	33	538	15	0	1	1,186	16	0	14	0	2	0	17	1	34	1,860	
Peak Hour	1	20	272	5	0	1	678	5	0	8	0	1	0	8	0	10	1,009	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

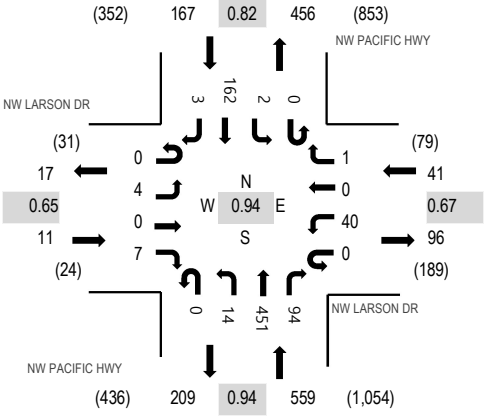
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	1	1	3	6	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	1	0	0	4	5	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	1	0	2	1	4	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	4	0	5	2	11	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	3	1	1	1	6	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	4	1	2	1	8	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	3	0	0	0	3	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	2	1	5	0	8	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	3	1	5	1	10	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	4	0	1	1	6	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	3	0	6	0	9	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	2	0	2	1	5	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	2	0	6	1	9	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	4	0	2	2	8	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	3	0	1	0	4	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	4	0	0	0	4	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	2	0	1	3	6	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	2	1	0	4	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	2	1	1	0	4	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	2	0	2	1	5	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	1	0	3	0	4	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	4	0	14	0	18	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	5	0	5	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	3	0	3	0	6	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	59	8	69	22	158	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	35	4	37	11	87	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

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

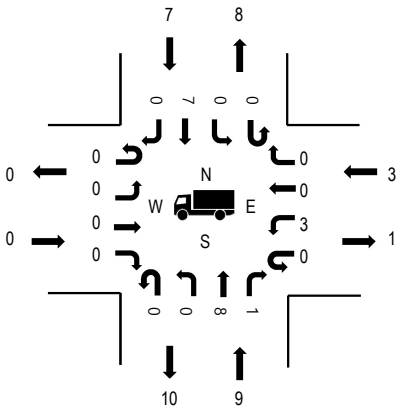
Location: 1 NW PACIFIC HWY & NW LARSON DR PM
Date: Thursday, September 14, 2023
Peak Hour: 04:10 PM - 05:10 PM
Peak 15-Minutes: 04:10 PM - 04:25 PM

Peak Hour

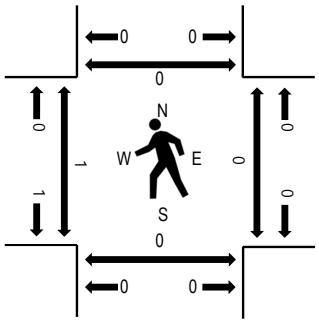
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.65
WB	7.3%	0.67
NB	1.6%	0.94
SB	4.2%	0.82
All	2.4%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LARSON DR Eastbound				NW LARSON DR Westbound				NW PACIFIC HWY Northbound				NW PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	2	1	0	1	0	0	0	0	33	3	0	0	14	0	54	757
4:05 PM	0	0	0	0	0	4	0	0	0	1	41	6	0	0	12	0	64	759
4:10 PM	0	0	0	1	0	5	0	0	0	2	44	9	0	0	14	0	75	778
4:15 PM	0	0	0	1	0	3	0	0	0	3	43	9	0	1	10	0	70	763
4:20 PM	0	1	0	0	0	5	0	0	0	0	31	8	0	1	15	0	61	746
4:25 PM	0	0	0	0	0	2	0	0	0	1	32	9	0	0	15	0	59	749
4:30 PM	0	1	0	1	0	1	0	0	0	0	44	3	0	0	11	0	61	754
4:35 PM	0	1	0	1	0	5	0	0	0	2	37	6	0	0	9	0	61	755
4:40 PM	0	1	0	0	0	8	0	0	0	2	43	10	0	0	16	1	81	758
4:45 PM	0	0	0	0	0	2	0	1	0	1	38	6	0	0	8	0	56	731
4:50 PM	0	0	0	2	0	1	0	0	0	1	33	9	0	0	13	0	59	737
4:55 PM	0	0	0	0	0	2	0	0	0	0	36	9	0	0	9	0	56	748
5:00 PM	0	0	0	1	0	4	0	0	0	0	29	3	0	0	19	0	56	752
5:05 PM	0	0	0	0	0	2	0	0	0	2	41	13	0	0	23	2	83	
5:10 PM	0	0	0	1	0	5	0	0	0	1	29	6	0	0	18	0	60	
5:15 PM	0	0	0	1	0	1	0	0	0	3	32	6	0	0	10	0	53	
5:20 PM	0	0	0	0	0	3	0	0	0	2	26	9	0	2	22	0	64	
5:25 PM	0	0	0	1	0	2	0	0	0	3	38	8	0	0	12	0	64	
5:30 PM	0	0	0	1	0	1	0	0	0	0	32	10	0	0	18	0	62	
5:35 PM	0	0	0	0	0	4	0	1	0	0	37	8	0	0	14	0	64	
5:40 PM	0	1	0	2	0	5	0	0	0	0	27	6	0	0	13	0	54	
5:45 PM	0	0	1	0	0	4	0	0	0	1	37	3	0	0	16	0	62	
5:50 PM	0	1	0	0	0	4	0	0	0	3	30	12	0	0	20	0	70	
5:55 PM	0	1	0	0	0	3	0	0	0	0	31	11	0	0	14	0	60	
Count Total	0	7	3	14	0	77	0	2	0	28	844	182	0	4	345	3	1,509	
Peak Hour	0	4	0	7	0	40	0	1	0	14	451	94	0	2	162	3	778	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

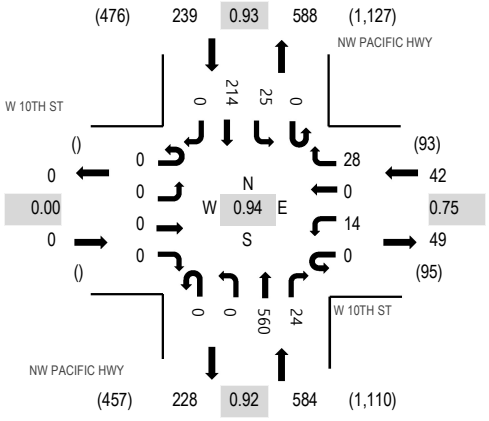
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	2	2	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	2	1	1	4	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	1	2	3	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	2	0	0	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	3	0	1	4	4:20 PM	0	0	0	0	0	4:20 PM	1	0	0	0	1
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	1	0	1	2	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	1	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	1	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	0	1	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	2	2	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	1	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	2	2	4
5:20 PM	0	2	0	0	2	5:20 PM	0	0	0	0	0	5:20 PM	0	0	1	1	2
5:25 PM	0	2	0	0	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	3	0	0	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	1	0	0	1	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	1	0	0	0	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	2	0	2	4	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	1	21	5	13	40	Count Total	0	0	0	0	0	Count Total	1	0	3	3	7
Peak Hour	0	9	3	7	19	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

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

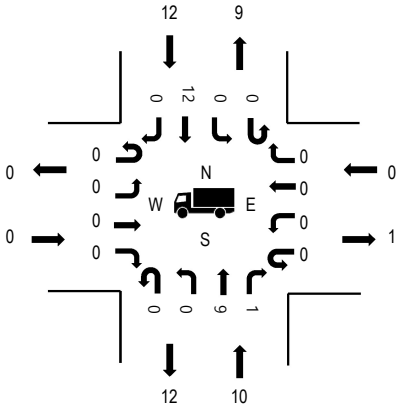
Location: 2 NW PACIFIC HWY & W 10TH ST PM
Date: Thursday, September 14, 2023
Peak Hour: 04:10 PM - 05:10 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour

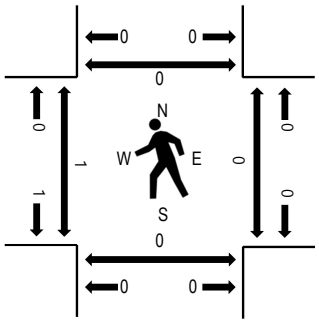
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.75
NB	1.7%	0.92
SB	5.0%	0.93
All	2.5%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	W 10TH ST Eastbound				W 10TH ST Westbound				NW PACIFIC HWY Northbound				NW PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	2	0	2	0	0	43	2	0	2	12	0	63	846
4:05 PM	0	0	0	0	0	1	0	5	0	0	46	0	0	2	14	0	68	845
4:10 PM	0	0	0	0	0	2	0	2	0	0	59	2	0	3	22	0	90	865
4:15 PM	0	0	0	0	0	1	0	5	0	0	49	3	0	1	14	0	73	842
4:20 PM	0	0	0	0	0	0	0	0	0	0	40	3	0	1	21	0	65	836
4:25 PM	0	0	0	0	0	0	0	0	0	0	43	1	0	4	17	0	65	837
4:30 PM	0	0	0	0	0	0	0	4	0	0	56	3	0	3	12	0	78	843
4:35 PM	0	0	0	0	0	0	0	2	0	0	42	3	0	1	18	0	66	836
4:40 PM	0	0	0	0	0	4	0	5	0	0	52	4	0	2	20	0	87	838
4:45 PM	0	0	0	0	0	0	0	2	0	0	47	2	0	2	17	0	70	811
4:50 PM	0	0	0	0	0	2	0	4	0	0	42	2	0	1	16	0	67	805
4:55 PM	0	0	0	0	0	0	0	0	0	0	43	0	0	1	10	0	54	819
5:00 PM	0	0	0	0	0	2	0	2	0	0	34	1	0	2	21	0	62	833
5:05 PM	0	0	0	0	0	3	0	2	0	0	53	0	0	4	26	0	88	
5:10 PM	0	0	0	0	0	2	0	2	0	0	43	3	0	1	16	0	67	
5:15 PM	0	0	0	0	0	3	0	2	0	0	44	0	0	6	12	0	67	
5:20 PM	0	0	0	0	0	0	0	3	0	0	36	2	0	3	22	0	66	
5:25 PM	0	0	0	0	0	1	0	2	0	0	47	2	0	3	16	0	71	
5:30 PM	0	0	0	0	0	1	0	3	0	0	45	1	0	0	21	0	71	
5:35 PM	0	0	0	0	0	2	0	4	0	0	40	4	0	1	17	0	68	
5:40 PM	0	0	0	0	0	0	0	5	0	0	32	3	0	1	19	0	60	
5:45 PM	0	0	0	0	0	1	0	4	0	0	40	1	0	0	18	0	64	
5:50 PM	0	0	0	0	0	0	0	3	0	0	42	4	0	1	31	0	81	
5:55 PM	0	0	0	0	0	1	0	2	0	0	44	2	0	2	17	0	68	
Count Total	0	0	0	0	0	28	0	65	0	0	1,062	48	0	47	429	0	1,679	
Peak Hour	0	0	0	0	0	14	0	28	0	0	560	24	0	25	214	0	865	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

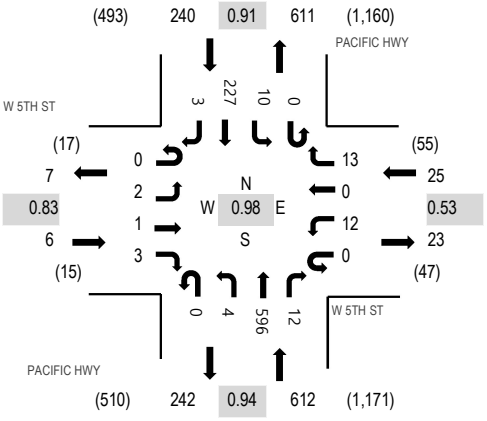
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	1	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	1	1	3	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	1	0	3	4	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	2	0	0	2	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	2	3	4:25 PM	0	0	0	0	0	4:25 PM	1	0	0	0	1
4:30 PM	0	1	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	1	0	2	3	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	1	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	1	0	1	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	0	1	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	2	2	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	1	1
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	1	1	1	3	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	2	0	0	2	5:25 PM	0	0	0	0	0	5:25 PM	2	0	0	0	2
5:30 PM	0	3	0	0	3	5:30 PM	0	0	0	0	0	5:30 PM	0	2	0	0	2
5:35 PM	0	1	0	0	1	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	1	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	1	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	2	0	2	4	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	20	2	19	41	Count Total	0	0	0	0	0	Count Total	3	2	0	1	6
Peak Hour	0	10	0	12	22	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

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

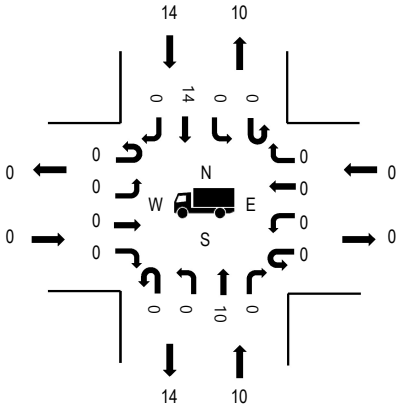
Location: 3 PACIFIC HWY & W 5TH ST PM
Date: Thursday, September 14, 2023
Peak Hour: 04:10 PM - 05:10 PM
Peak 15-Minutes: 04:10 PM - 04:25 PM

Peak Hour

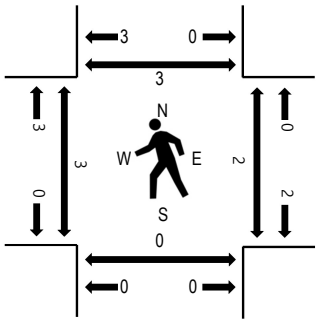
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.83
WB	0.0%	0.53
NB	1.6%	0.94
SB	5.8%	0.91
All	2.7%	0.98

Traffic Counts - Motorized Vehicles

Interval Start Time	W 5TH ST Eastbound				W 5TH ST Westbound				PACIFIC HWY Northbound				PACIFIC HWY Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	1	0	2	2	0	0	1	48	0	0	1	15	0	70	871
4:05 PM	0	0	0	1	0	4	0	2	0	2	46	0	0	1	17	0	73	874
4:10 PM	0	0	0	0	0	2	0	1	0	0	59	2	0	1	20	0	85	883
4:15 PM	0	0	0	0	0	4	0	2	0	0	47	2	0	0	19	0	74	876
4:20 PM	0	0	0	0	0	0	0	1	0	0	44	1	0	2	18	0	66	868
4:25 PM	0	0	0	0	0	1	0	1	0	0	56	1	0	0	21	0	80	865
4:30 PM	0	0	0	0	0	0	0	1	0	0	53	0	0	0	14	0	68	863
4:35 PM	0	0	0	1	0	2	0	2	0	0	52	1	0	0	18	0	76	870
4:40 PM	0	1	0	0	0	0	0	1	0	0	49	1	0	0	24	1	77	856
4:45 PM	0	1	0	0	0	1	0	1	0	0	48	2	0	3	14	0	70	845
4:50 PM	0	0	0	1	0	0	0	2	0	0	46	0	0	2	16	0	67	837
4:55 PM	0	0	0	1	0	0	0	0	0	3	42	1	0	0	17	1	65	854
5:00 PM	0	0	1	0	0	0	0	1	0	0	47	1	0	0	23	0	73	863
5:05 PM	0	0	0	0	0	2	0	0	0	1	53	0	0	2	23	1	82	
5:10 PM	0	0	0	1	0	1	0	1	0	0	49	1	0	0	25	0	78	
5:15 PM	0	0	0	0	0	3	0	0	0	1	42	1	0	0	19	0	66	
5:20 PM	0	0	0	0	0	2	0	1	0	0	38	1	0	1	20	0	63	
5:25 PM	0	0	0	1	0	0	0	0	0	2	56	0	0	0	19	0	78	
5:30 PM	0	0	1	1	0	1	0	1	0	0	49	2	0	1	19	0	75	
5:35 PM	0	0	0	0	0	0	0	2	0	0	35	0	0	2	23	0	62	
5:40 PM	0	0	0	1	0	1	0	1	0	1	39	3	0	0	20	0	66	
5:45 PM	0	0	0	2	0	0	0	1	0	0	40	0	0	2	17	0	62	
5:50 PM	0	0	0	0	0	1	0	1	0	0	46	2	0	2	32	0	84	
5:55 PM	0	0	0	0	0	2	0	1	0	1	50	3	0	0	17	0	74	
Count Total	0	2	2	11	0	29	2	24	0	12	1,134	25	0	20	470	3	1,734	
Peak Hour	0	2	1	3	0	12	0	13	0	4	596	12	0	10	227	3	883	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

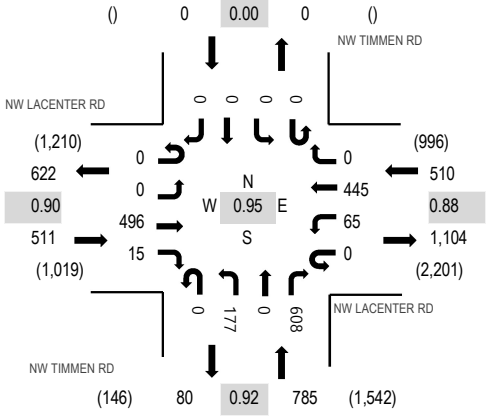
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	1	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	1	2	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	1	0	4	5	4:10 PM	0	0	0	0	0	4:10 PM	2	0	0	0	2
4:15 PM	0	1	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	2	0	1	3	4:20 PM	0	0	0	0	0	4:20 PM	0	0	1	0	1
4:25 PM	0	2	0	2	4	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	1	0	1
4:35 PM	0	2	0	2	4	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	1	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	1	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	1	0	0	0	1
4:55 PM	0	1	0	2	3	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	2	2	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	3	3
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	3	3
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	1	0	1
5:25 PM	0	2	0	0	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	3	0	0	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	1	0	1	2	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	2	2
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	1	1	2	4
5:50 PM	0	1	0	1	2	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	2	0	1	3	5:55 PM	0	0	0	0	0	5:55 PM	1	0	0	0	1
Count Total	0	20	0	19	39	Count Total	0	0	0	0	0	Count Total	4	1	4	10	19
Peak Hour	0	10	0	14	24	Peak Hour	0	0	0	0	0	Peak Hour	3	0	2	3	8

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

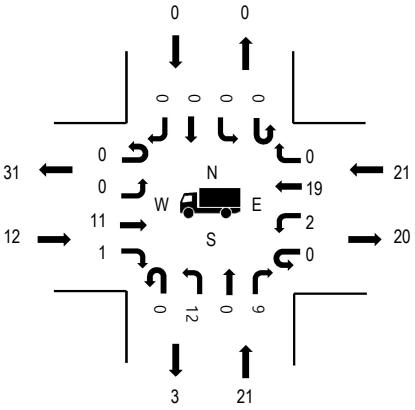
Location: 4 NW TIMMEN RD & NW LACENTER RD PM
Date: Thursday, September 14, 2023
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:35 PM - 04:50 PM

Peak Hour

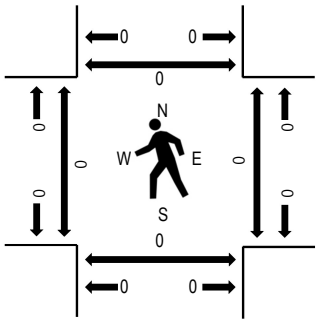
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.3%	0.90
WB	4.1%	0.88
NB	2.7%	0.92
SB	0.0%	0.00
All	3.0%	0.95

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW TIMMEN RD Northbound				NW TIMMEN RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	40	0	0	3	38	0	0	14	0	55	0	0	0	0	150	1,795
4:05 PM	0	0	51	1	0	5	40	0	0	21	0	32	0	0	0	0	150	1,794
4:10 PM	0	0	42	1	0	3	31	0	0	17	0	51	0	0	0	0	145	1,803
4:15 PM	0	0	42	3	0	4	40	0	0	17	0	45	0	0	0	0	151	1,806
4:20 PM	0	0	37	2	0	4	45	0	0	17	0	53	0	0	0	0	158	1,791
4:25 PM	0	0	35	0	0	4	30	0	0	15	0	59	0	0	0	0	143	1,791
4:30 PM	0	0	39	0	0	8	40	0	0	10	0	55	0	0	0	0	152	1,796
4:35 PM	0	0	48	2	0	5	43	0	0	15	0	44	0	0	0	0	157	1,794
4:40 PM	0	0	38	0	0	8	39	0	0	21	0	52	0	0	0	0	158	1,784
4:45 PM	0	0	52	1	0	3	47	0	0	19	0	38	0	0	0	0	160	1,769
4:50 PM	0	0	51	3	0	5	16	0	0	11	0	41	0	0	0	0	127	1,754
4:55 PM	0	0	40	1	0	5	39	0	0	13	0	46	0	0	0	0	144	1,766
5:00 PM	0	0	43	0	0	5	35	0	0	10	0	56	0	0	0	0	149	1,762
5:05 PM	0	0	49	2	0	4	35	0	0	17	0	52	0	0	0	0	159	
5:10 PM	0	0	22	1	0	10	36	0	0	12	0	67	0	0	0	0	148	
5:15 PM	0	0	42	0	0	5	31	0	0	8	0	50	0	0	0	0	136	
5:20 PM	0	0	50	3	0	6	34	0	0	14	0	51	0	0	0	0	158	
5:25 PM	0	0	32	3	0	3	42	0	0	10	0	58	0	0	0	0	148	
5:30 PM	0	0	36	1	0	5	40	0	0	9	0	59	0	0	0	0	150	
5:35 PM	0	0	40	1	0	7	37	0	0	12	0	50	0	0	0	0	147	
5:40 PM	0	0	37	1	0	3	42	0	0	11	0	49	0	0	0	0	143	
5:45 PM	0	0	52	1	0	2	32	0	0	15	0	43	0	0	0	0	145	
5:50 PM	0	0	30	1	0	8	37	0	0	12	0	51	0	0	0	0	139	
5:55 PM	0	0	43	0	0	3	29	0	0	12	0	53	0	0	0	0	140	
Count Total	0	0	991	28	0	118	878	0	0	332	0	1,210	0	0	0	0	3,557	
Peak Hour	0	0	496	15	0	65	445	0	0	177	0	608	0	0	0	0	1,806	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

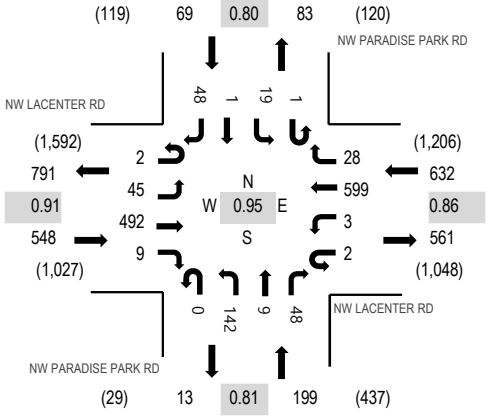
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	3	2	4	0	9	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	4	6	0	10	4:05 PM	1	0	0	0	1	4:05 PM	0	0	0	0	0
4:10 PM	1	2	4	0	7	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	4	4	3	0	11	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	4	0	4	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	2	6	0	9	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	1	2	0	3	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	4	2	0	6	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	2	0	0	3	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1	4:45 PM	0	1	0	0	1	4:45 PM	0	0	0	0	0
4:50 PM	2	2	1	0	5	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	1	1	0	0	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	1	0	0	0	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	1	4	1	0	6	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	1	0	2	0	3	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	2	1	0	0	3	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	1	0	0	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	3	1	0	4	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	2	2	3	0	7	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	1	1	2	0	4	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	1	0	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	1	2	0	0	3	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	4	1	0	5	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	1	1	0	0	2	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	24	43	43	0	110	Count Total	1	1	0	0	2	Count Total	0	0	0	0	0
Peak Hour	12	21	21	0	54	Peak Hour	0	1	0	0	1	Peak Hour	0	0	0	0	0

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

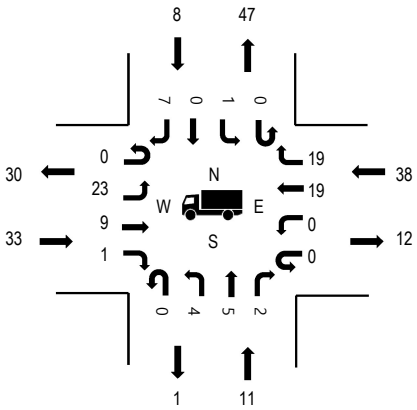
Location: 5 NW PARADISE PARK RD & NW LACENTER RD PM
Date: Thursday, September 14, 2023
Peak Hour: 04:05 PM - 05:05 PM
Peak 15-Minutes: 04:35 PM - 04:50 PM

Peak Hour

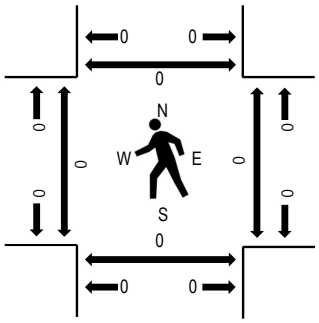
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

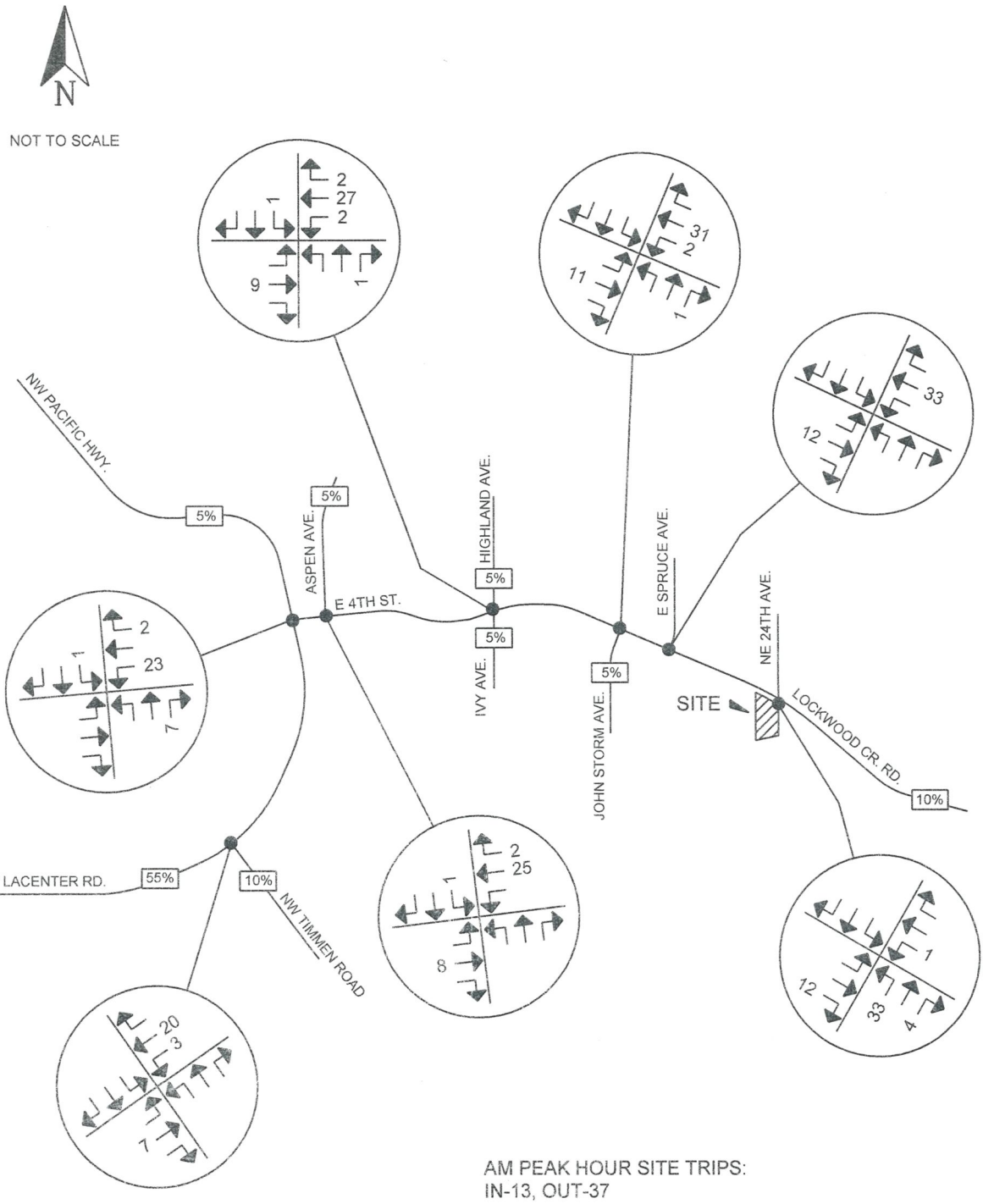
	HV%	PHF
EB	6.0%	0.91
WB	6.0%	0.86
NB	5.5%	0.81
SB	11.6%	0.80
All	6.2%	0.95

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW PARADISE PARK RD Northbound				NW PARADISE PARK RD Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	1	31	1	0	0	47	1	0	14	0	3	0	1	0	10	109	1,428
4:05 PM	0	5	54	1	0	0	58	5	0	9	0	4	0	0	0	2	138	1,448
4:10 PM	0	1	47	0	0	0	44	6	0	15	0	2	0	2	0	3	120	1,427
4:15 PM	0	3	38	1	0	0	54	2	0	18	1	3	0	1	0	2	123	1,413
4:20 PM	1	4	29	1	1	0	51	3	0	8	0	1	0	3	0	3	105	1,396
4:25 PM	1	5	34	1	1	1	44	4	0	17	0	6	1	2	0	5	122	1,422
4:30 PM	0	7	36	1	0	0	51	2	0	11	2	4	0	0	0	7	121	1,413
4:35 PM	0	5	45	1	0	0	53	2	0	9	0	4	0	3	0	5	127	1,406
4:40 PM	0	5	36	0	0	0	59	2	0	17	2	6	0	1	0	1	129	1,396
4:45 PM	0	1	42	0	0	2	65	0	0	7	0	3	0	4	0	3	127	1,374
4:50 PM	0	2	46	3	0	0	26	0	0	8	2	8	0	1	0	4	100	1,370
4:55 PM	0	4	36	0	0	0	48	1	0	7	2	2	0	2	0	5	107	1,368
5:00 PM	0	3	49	0	0	0	46	1	0	16	0	5	0	0	1	8	129	1,361
5:05 PM	0	1	35	4	0	1	49	0	0	14	0	6	0	2	0	5	117	
5:10 PM	0	3	23	3	0	0	49	1	0	17	0	6	0	0	0	4	106	
5:15 PM	0	4	38	1	0	0	41	1	0	16	1	2	0	0	0	2	106	
5:20 PM	2	0	45	0	0	0	44	1	0	22	1	10	0	2	0	4	131	
5:25 PM	0	1	34	2	0	0	51	0	0	19	1	2	0	1	0	2	113	
5:30 PM	2	4	36	0	0	0	48	1	0	15	0	3	0	2	0	3	114	
5:35 PM	1	4	37	0	0	0	49	0	0	19	0	2	0	0	0	5	117	
5:40 PM	0	4	34	0	0	0	53	0	0	13	0	1	0	0	0	2	107	
5:45 PM	0	3	48	2	0	0	47	0	0	13	0	6	0	2	0	2	123	
5:50 PM	0	1	31	0	0	0	49	0	0	17	0	0	0	0	0	0	98	
5:55 PM	0	0	43	0	0	1	38	2	0	13	1	1	0	0	1	0	100	
Count Total	7	71	927	22	2	5	1,164	35	0	334	13	90	1	29	2	87	2,789	
Peak Hour	2	45	492	9	2	3	599	28	0	142	9	48	1	19	1	48	1,448	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	4	1	7	4:00 PM	1	0	0	0	1	4:00 PM	0	0	0	0	0
4:05 PM	2	0	6	2	10	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	3	1	7	1	12	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	5	2	4	0	11	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	3	1	5	0	9	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	5	1	3	1	10	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	4	1	6	2	13	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	3	0	2	0	5	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	4	1	2	0	7	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	1	1	3	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	2	0	0	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	2	1	2	0	5	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	1	1	0	1	3	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	1	2	0	3	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	4	0	4	0	8	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	2	0	0	0	2	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	1	2	0	0	3	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	1	1	0	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	2	1	3	0	6	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	2	1	2	0	5	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	1	1	1	0	3	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	1	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	1	0	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	1	0	0	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	48	19	56	9	132	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	33	11	38	8	90	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



ASA'S VIEW SUBDIVISION

FIGURE 7a
SITE TRAFFIC DISTRIBUTION/ASSIGNMENT
AM PEAK HOUR

KELLY ENGINEERING
1805 NE 94th St. No. 19, Vancouver, WA 98665
Phone: 360-433-7530

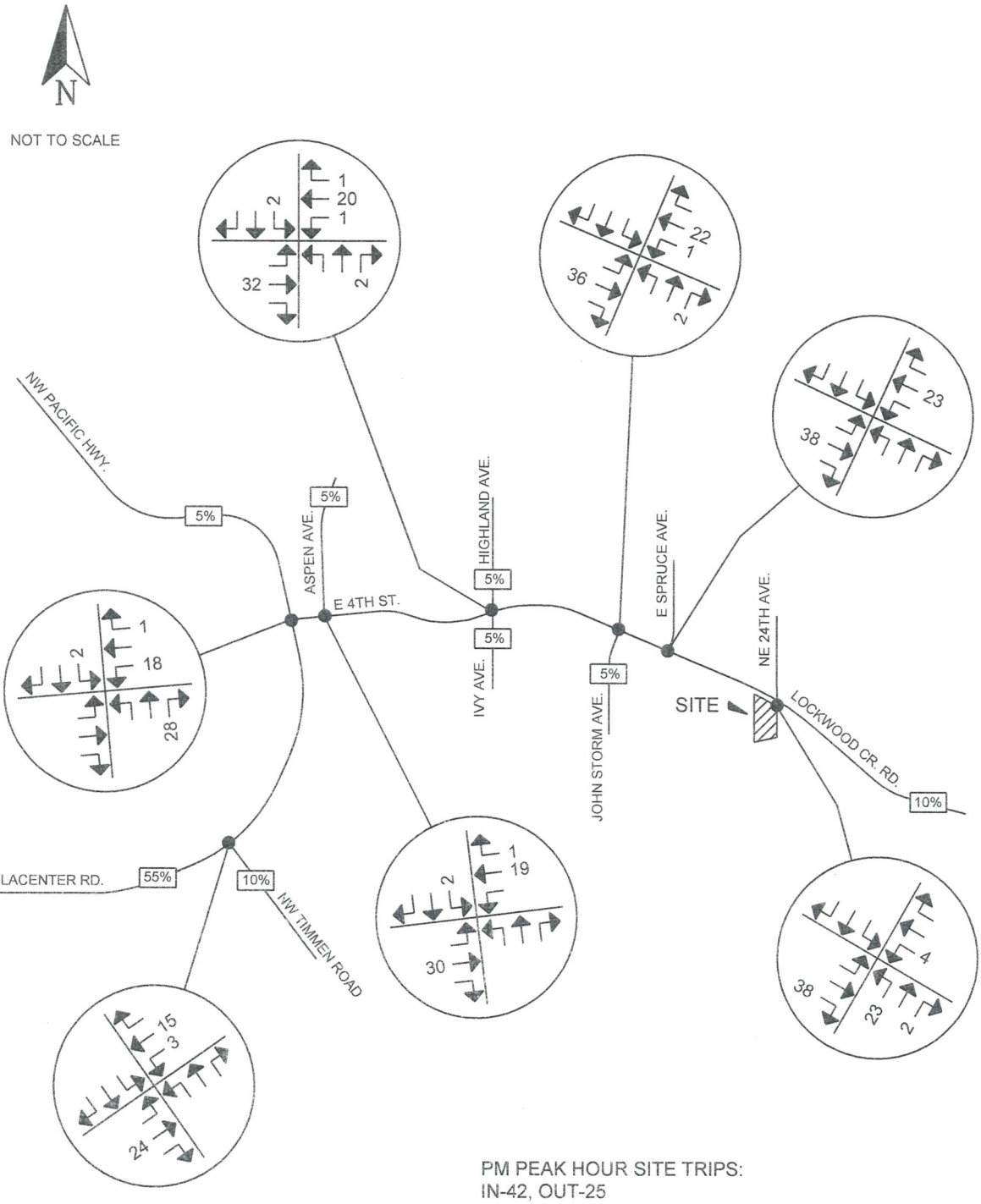
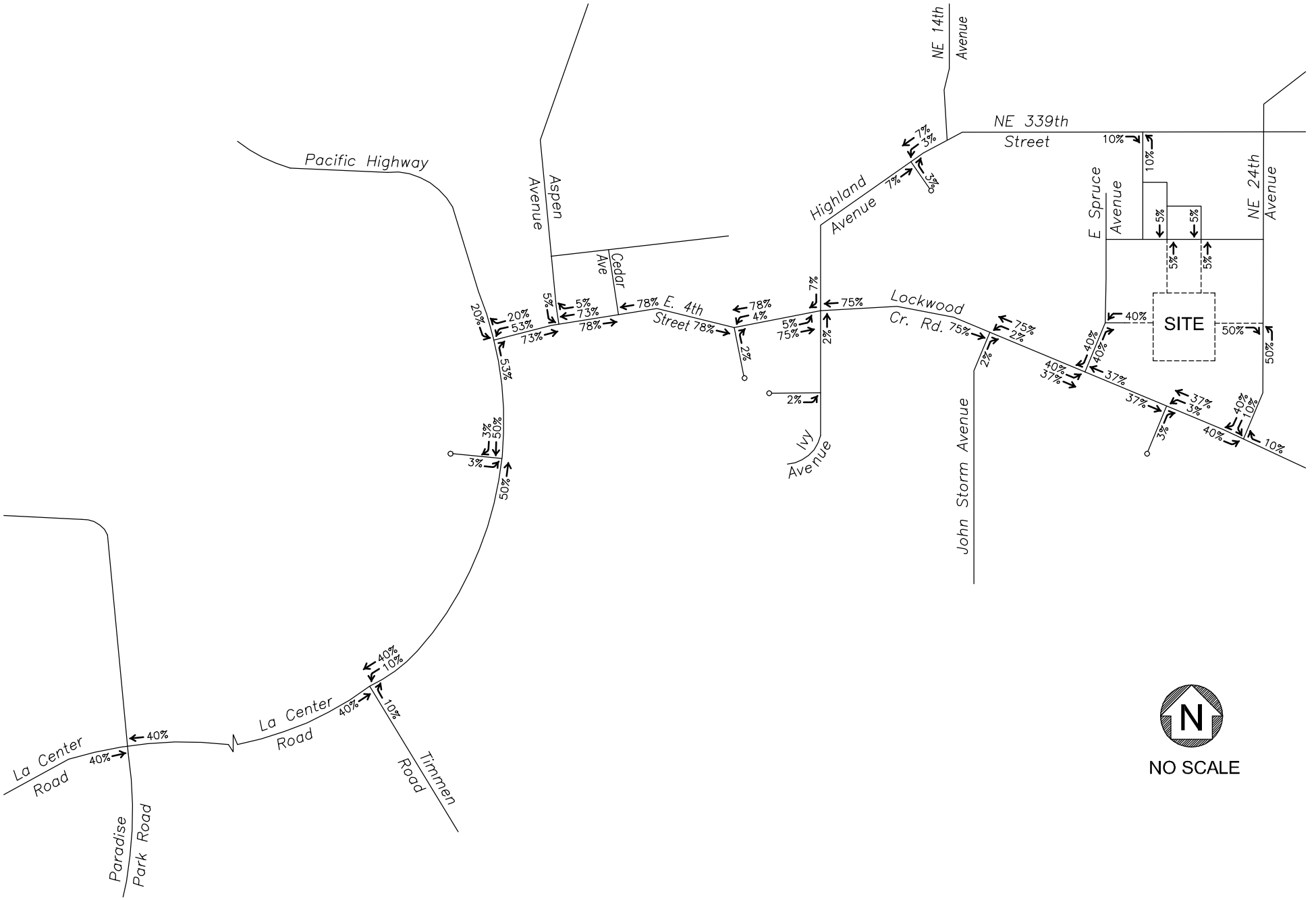


FIGURE 7b
SITE TRAFFIC DISTRIBUTION/ASSIGNMENT
PM PEAK HOUR

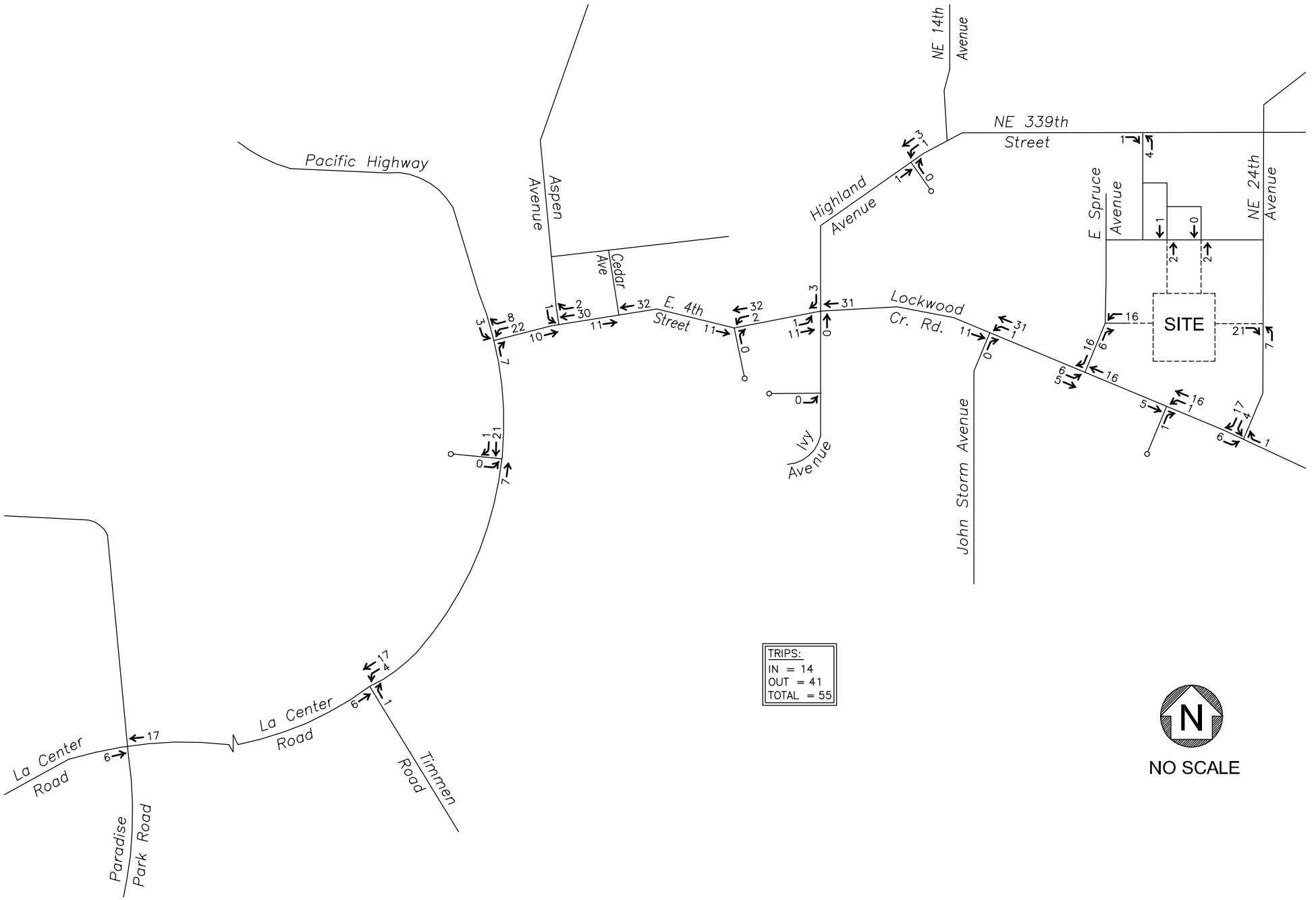
KELLY ENGINEERING
1805 NE 94th St. No. 19, Vancouver, WA 98665
Phone: 360-433-7530

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC PROJECT: 21-25	NOTES: Trip distribution for the site is based on engineering judgment.	TRIP DISTRIBUTION AM PEAK HOUR & PM PEAK HOUR LOCKWOOD MEADOWS	FIGURE 4

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

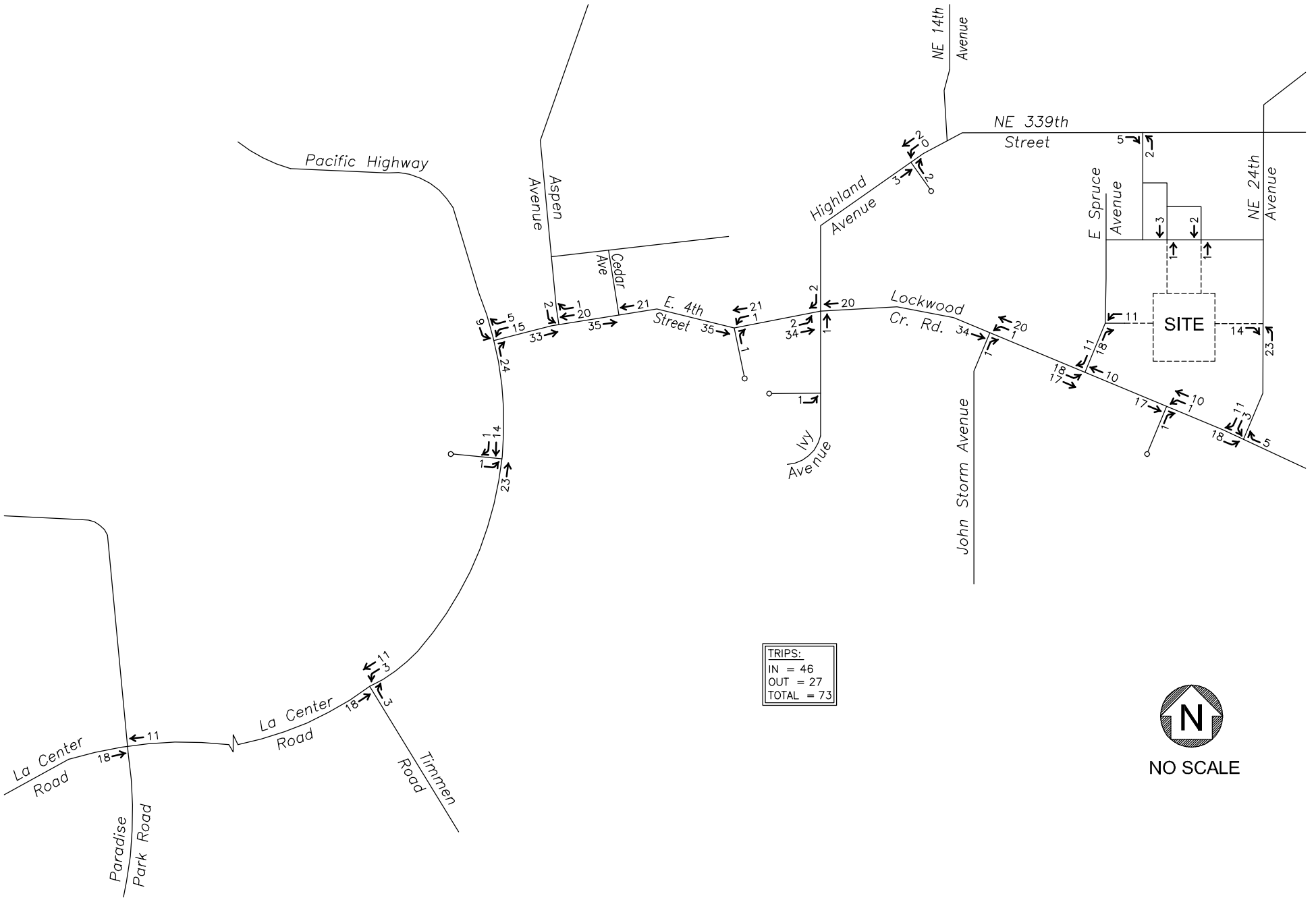
PROJECT: 21-25

NOTES: Trip generation is based on Single-Family Residential (ITE 210) trip rates.

TRIP ASSIGNMENT
AM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE 5a

PLOT DATE: 08.01.21 FILE: 2125flow.dwg



CHARBONNEAU ENGINEERING LLC

PROJECT: 21-25

NOTES: Trip generation is based on Single-Family Residential (ITE 210) trip rates.

TRIP ASSIGNMENT
PM PEAK HOUR
LOCKWOOD MEADOWS

FIGURE 5b

Minor Street Right Turn Volume Adjustment

Pagones Theorem, a two-step right-turn adjustment methodlogy, uses a minor street equivalent factor and a mainline congestion factor to estimate the portion of right turn volumes that should be considered when evaluating traffic signal warrants. The adjusted right-turn volume is calculated with the equation below.

$$R_{adj} = R \times [1 - (f_{minor} - f_{main})] \qquad (2.1)$$

where R_{adj}= adjusted right turn volume; R = original right turn volume; f_{minor}= minor street adjustment factor; f_{main}= mainline congestion factor. Note: if $f_{minor} - f_{main} < 0$, then$R_{adj} = R$.

The minor street adjustment factor reflects whether minor street geometry and traffic volumes permit the free movement of right turns and reduce right-turn volumes accordingly. The mainline congestion factors adjusts to account for the amount of congestion on the mainline. In essence, f_{minor} considers what portion of vehicles could get to the intersection to make a right-turn without delay while f_{main} determines whether there are enough gaps in the mainline traffic to permit them to actually make that right-turn. The suggested values for f_{minor} and f_{main} are listed in Tables 2.1 and 2.2 according to lane configuration and volume condition. For the mainline right-turn reduction, if there is no mainline right turn lane, mainline right turn volumes are added to the through volumes for the lane volume calculations; if a right-turn lane is present, mainline right-turn volumes are excluded from the calculation.

Table 2.1 Pagones Theorem Right-turn Adjustment Factors

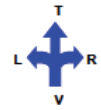
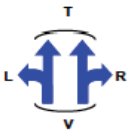
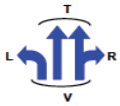
Minor Street Adjustment Factor (f_{minor})			
Case	**Lane Configuration**	**Volume Condition**	**f_{minor}**
1		R > 0.7V	0.60
		0.7V ≥ R > 0.35V	0.40
		R ≤ 0.35V	0.20
2		R > 3T	0.60
		3T ≥ R > T/3	0.40
		R ≤ T/3	0.20
3		Any configuration with an exclusive riight turn lane ≥500 ft. long (See note for shorter right turn lanes)	0.75
4		R > (T+L)	0.65
		L > (T+R)	Use Case 2
		L ≈ T ≈ R (±10 veh)	0.40
		L ≈ T > 3R	0.20
		R ≈ T > 3L	0.50
		all other conditions	0.30
5		R > T	0.75
		T ≥ R > T/2	0.50
		T/2 ≥ R > T/4	0.30
		R < T/4	0.15

Table 2.2 Pagones Theorem Mainline Congestion Factors

Mainline Congestion Factor (f_{main})	
Mainline volume per lane (veh/hr/lane)	**f_{main}**
0 - 399	0.0
400 - 499	0.05
500 - 599	0.10
600 - 699	0.15
700 - 799	0.20
800 - 899	0.25
900 - 999	0.30
1000 - 1099	0.35
1100-1199	0.40
1200-1299	0.45
1300-1399	0.50
1400-1499	0.55
1500-1599	0.60
1600-1699	0.65
1700-1799	0.70
1800-1899	0.75

Peak Hour Signal Warrant Right Turn Volume Adjustment Summary.

Intersection	Minor Street Case	Scenario & Peak Hour	Minor Street Traffic			Minor St. App. Vol.	f_{minor}	Mainline Traffic		Mainline Lanes (#)	Mainline Traffic per lane (veh/hr/lane)	f_{main}	R_{adj}
			LT	TH	RT			TH	RT				
NW La Center Rd & NW Timmen Rd	2	2026 Total-AM	24	-	54	78	0.60	305	10	1	315	0.00	22
		2023 Extg-PM	177	-	608	785	0.60	496	15		511	0.10	304
NW La Center Rd & Paradise Pk Rd	2					0				1	0		
		2023 Extg-PM	142	9	48	199	0.60	492	9		501	0.10	24
						0							
						0							

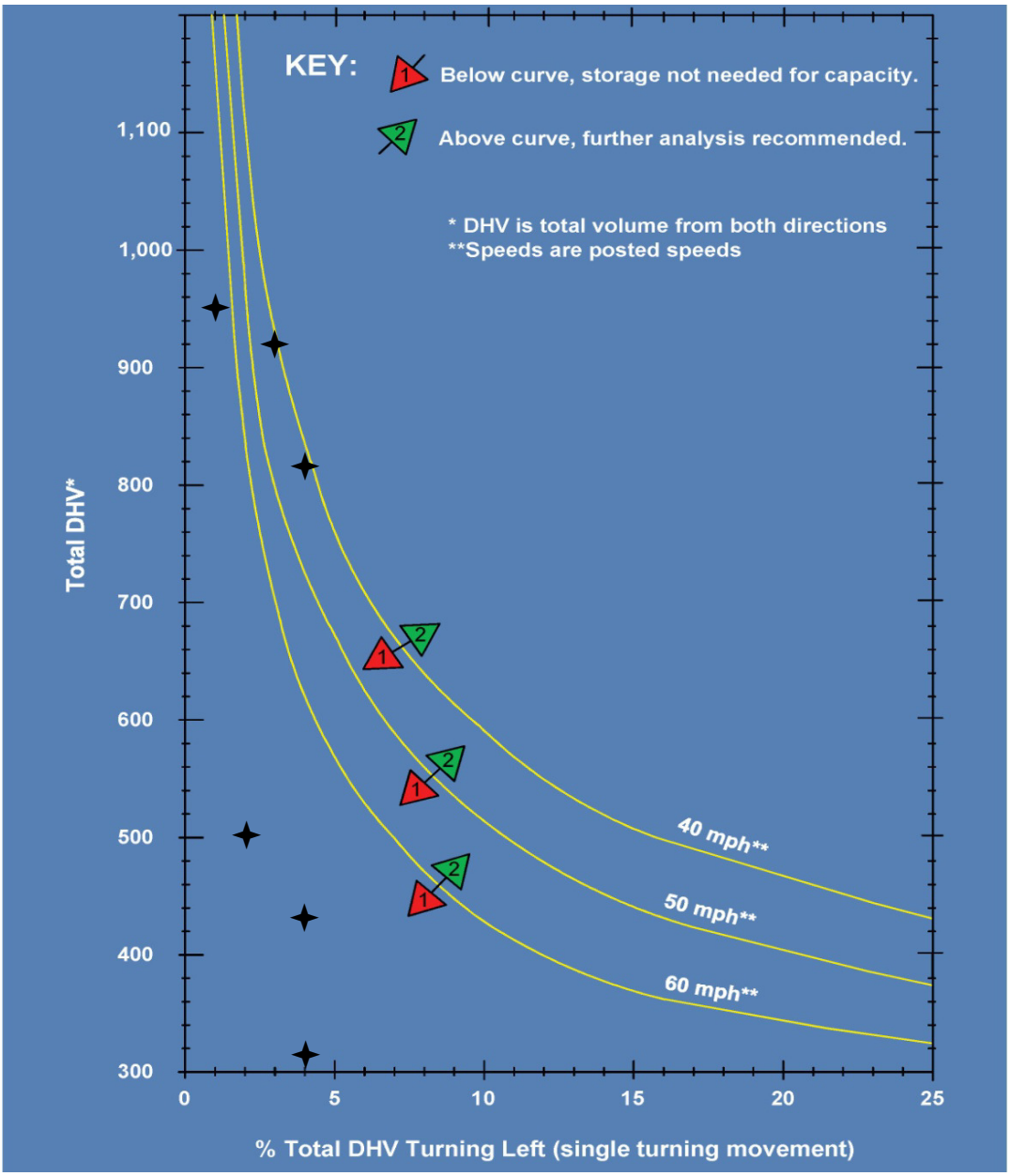


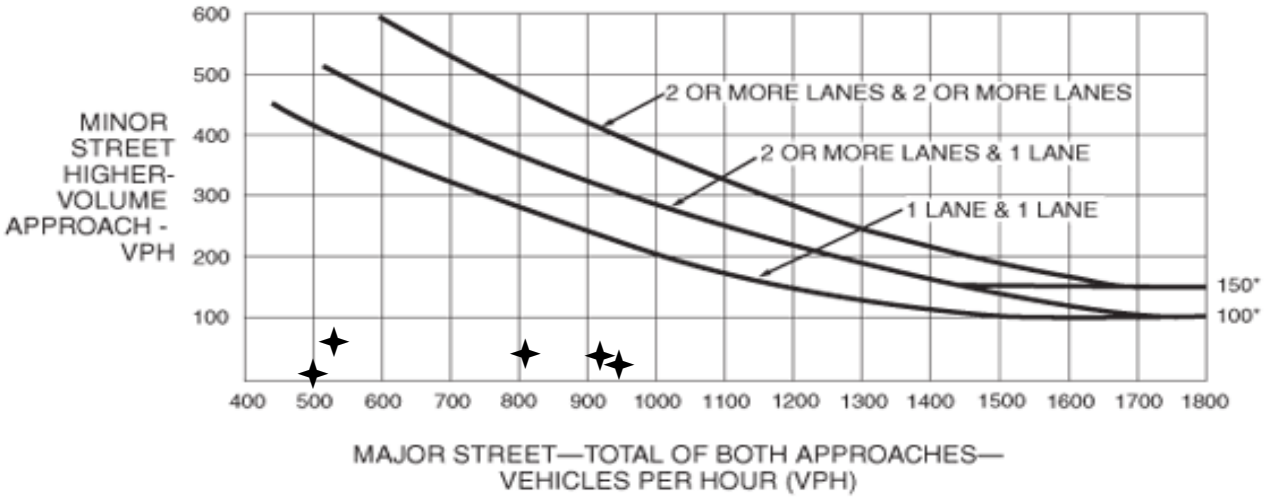
Exhibit 1310-7a. Left-turn Storage Guidelines-: Two-Lane, Unsignalized.

Storage requirements for critical left-turn movements at unsignalized intersections on 2-lane highways.

Intersection	Mov't	Analysis Period	Speed *V* (mph)	Left Turns in Advancing Volume (vph)	Advancing Volume V_A (vph)	Opposing Volume V_O (vph)	Total DHV	% Left Turns in DHV *L*	Storage Req'd (ft)
Pacific Hwy and NW Larsen Dr	NB LT	2026 Total Traffic-AM Peak	35	13	154	160	314	4%	None
		2026 Total Traffic-PM Peak		35	619	193	812	4%	None
	SB LT	2026 Total Traffic-AM Peak		0	160	154	314	0%	None
		2026 Total Traffic-PM Peak		2	193	619	812	0%	None
Pacific Hwy and NW 10th St	SB LT	2026 Total Traffic-AM Peak	35	16	287	144	431	4%	None
		2026 Total Traffic-PM Peak		28	276	644	920	3%	None
Pacific Hwy and NW 5th St	NB LT	2026 Total Traffic-AM Peak	35	1	173	330	503	0%	None
		2026 Total Traffic-PM Peak		4	674	276	950	0%	None
	SB LT	2026 Total Traffic-AM Peak		8	330	173	503	2%	None
		2026 Total Traffic-PM Peak		11	276	674	950	1%	None

Source: WSDOT Design Guide, February 2019.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Table for Figure 4C-3

One lane and one lane		Two or more lanes and one lane		Two or more lanes and two or more lanes	
VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)
1800	100	1800	100 or 150*	1800	150
1700	100	1700	100 or 150*	1700	150
1600	100	1600	120 or 150*	1600	170
1500	100	1500	145 or 150*	1500	180
1400	120	1400	155	1400	220
1300	130	1300	190	1300	250
1200	150	1200	220	1200	285
1100	175	1100	250	1100	340
1000	200	1000	285	1000	370
900	245	900	325	900	425
800	285	800	360	800	475
700	325	700	420	700	540
600	360	600	460	600	590
500	420	500	Not available	500	Not available

* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Peak hour volume warrant for signalization data.

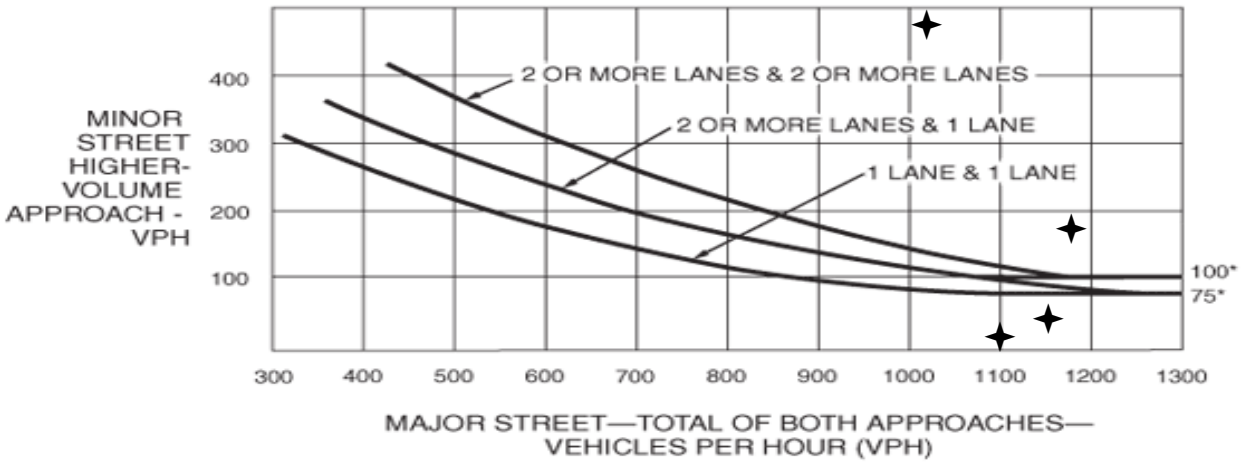
Intersection	Analysis Period	Major Street Speed (mph)	Major Street		Minor Street High Volume Approach		Signal Warranted?
			Volume (vph)	Lanes (#)	Volume (vph)	Lanes (#)	
Pacific Hwy and NW Larsen Dr	2026 Total Traffic - AM Peak	35	314	1	53	1	No
	2026 Total Traffic - PM Peak		812		43		No
Pacific Hwy and W. 10th St	2026 Total Traffic - AM Peak	35	431	1	57	1	No
	2026 Total Traffic - PM Peak		920		46		No
Pacific Hwy and W. 5th St	2026 Total Traffic - AM Peak	35	503	1	13	1	No
	2026 Total Traffic - PM Peak		950		27		No
NW La Center Rd and NW Timmen Rd	2026 Total Traffic - AM Peak*	50	1,154	2	46	2	No
	2023 Existing Traffic - PM Peak*		1,021		481		Yes
NW La Center Rd and Paradise Park Rd	2026 Total Traffic - AM Peak	50	1,104	2	19	2	No
	2023 Existing Traffic - PM Peak*		1,180		175		Yes

Source: *Manual on Uniform Traffic Control Devices (MUTCD)*, 2009 Edition.

* Minor Street High Volume Approach calculation includes adjusted right turn volume.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Table for Figure 4C-4

One lane and one lane		Two or more lanes and one lane		Two or more lanes and two or more lanes	
VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)	VPH on the major street (Total of both approaches)	VPH on the minor street (Higher volume approach)
1300	75	1300	75 or 100*	1300	100
1200	75	1200	80 or 100*	1200	100
1100	75	1100	100	1100	120
1000	80	1000	120	1000	150
900	100	900	140	900	175
800	120	800	160	800	225
700	145	700	200	700	260
600	170	600	245	600	315
500	220	500	280	500	370
400	260	400	340	400	Not available

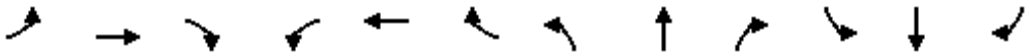
* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER

01/01/2018 - 12/31/2022 *See 2nd tab below for road information*

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	REPORT NUMBER	DATE	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	JUNCTION RELATIONSHIP	VEH 1 COMPASS DIR FROM	VEH 1 COMPASS DIR TO	VEH 2 COMPASS DIR FROM	VEH 2 COMPASS DIR TO
NW LA CENTER RD	2798	NW PARADISE PARK RD			EB57965	08/14/2021	No Apparent Injury	0	0	2	0	0	At Intersection and R	West	East	East	South
NW LA CENTER RD	32088	NW TIMMEN RD			EB92925	11/20/2021	No Apparent Injury	0	0	2	0	0	At Driveway within M	SW	NE	NW	SW
NW LA CENTER RD	32088	NW TIMMEN RD			EB98726	12/09/2021	No Apparent Injury	0	0	1	0	0	At Intersection and N	SW	NE		
NW LA CENTER RD	32088	NW TIMMEN RD			ED04764	10/21/2022	Suspected Minor Injury	1	0	2	0	0	At Intersection and R	West	East	West	East
NW LA CENTER RD	32100	REF PT: NW TIMMEN RD	0.19	M	EB67460	08/27/2021	Possible Injury	2	0	2	0	0	Not at Intersection ar	North	South	North	South
NW LA CENTER RD	32100	REF PT: NW TIMMEN RD	0.15	M	EC07977	12/30/2021	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	NE	SW		
NW LA CENTER RD	32100	REF PT: NW TIMMEN RD	0.1	M	EB79085	10/03/2021	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	West	NE		
NW LACENTER RD	0	NW PARADISE PARK RD			E866954	11/26/2018	No Apparent Injury	0	0	2	0	0	At Intersection and R	South	North	West	East
NW LACENTER RD	32100	REF PT: NW TIMMEN RD	100	F	E837059	09/11/2018	No Apparent Injury	0	0	2	0	0	Not at Intersection ar	SW	NE	SE	NW
NW LARSON DR	33600	REF PT: NW PACIFIC HWY	249	F	EC29134	03/04/2022	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	North	South		
NW PACIFIC HWY	0	NW LARSON DR			EA27197	01/29/2020	No Apparent Injury	0	0	1	0	0	At Intersection and N	NW	SE		
NW PACIFIC HWY	0	W 10TH ST			EA27195	03/30/2020	No Apparent Injury	0	0	1	0	0	At Intersection and N	NW	SE		
NW PACIFIC HWY	34200	REF PT: NW LARSON DR	300	F	EA90352	12/10/2020	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	North	South		
NW PACIFIC HWY	34200	REF PT: NW LARSON DR	200	F	EA44289	06/25/2020	Suspected Minor Injury	1	0	1	0	0	Not at Intersection ar	North	South		
NW PACIFIC HWY	34000	REF PT: NW LARSON DR	0.2	M	EA29555	03/31/2020	No Apparent Injury	0	0	2	0	0	Not at Intersection ar	North	South	North	South
NW PACIFIC HWY	34200	REF PT: NW LARSON DR	300	F	EA89622	12/09/2020	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	North	South		
NW PACIFIC HWY	34300	REF PT: NW LARSON DR	300	F	E934600	06/22/2019	No Apparent Injury	0	0	1	0	0	Not at Intersection ar	SE	NW		
~~NW TIMMEN RD~~	~~31986~~	~~NW LA CENTER RD~~			~~EC15297~~	~~12/18/2021~~	~~Suspected Minor Injury~~	~~1~~	~~0~~	~~1~~	~~0~~	~~0~~	~~At Intersection and R~~	~~SE~~	~~NW~~		
NW TIMMEN RD	0	NW LACENTER RD			E839247	08/29/2018	Possible Injury	1	0	2	0	0	At Intersection and R	North	West	West	East
~~NW TIMMEN RD~~	~~31800~~	~~REF PT: NE TIMMEN RD~~	~~353~~	~~F~~	~~EB99807~~	~~11/08/2021~~	~~No Apparent Injury~~	~~0~~	~~0~~	~~1~~	~~0~~	~~0~~	~~Not at Intersection ar~~	~~South~~	~~North~~		
~~NW TIMMEN RD~~	~~31800~~	~~REF PT: NW LACENTER RD~~	~~349~~	~~F~~	~~EB32270~~	~~05/18/2021~~	~~Possible Injury~~	~~1~~	~~0~~	~~1~~	~~0~~	~~0~~	~~Not at Intersection ar~~	~~South~~	~~North~~		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	3	16	45	2	3	7	95	28	0	144	1
Future Volume (vph)	3	3	16	45	2	3	7	95	28	0	144	1
Confl. Peds. (#/hr)	2			1		5			1	5		2
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

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	3	16	45	2	3	7	95	28	0	144	1
Future Vol, veh/h	3	3	16	45	2	3	7	95	28	0	144	1
Conflicting Peds, #/hr	2	0	0	1	0	5	0	0	1	5	0	2
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	21	59	3	4	9	125	37	0	189	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	362	377	193	370	359	154	192	0	0	167	0	0
Stage 1	192	192	-	167	167	-	-	-	-	-	-	-
Stage 2	170	185	-	203	192	-	-	-	-	-	-	-
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	594	555	849	587	568	892	1381	-	-	1411	-	-
Stage 1	810	742	-	835	760	-	-	-	-	-	-	-
Stage 2	832	747	-	799	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	582	547	847	563	560	884	1378	-	-	1404	-	-
Mov Cap-2 Maneuver	582	547	-	563	560	-	-	-	-	-	-	-
Stage 1	803	741	-	825	751	-	-	-	-	-	-	-
Stage 2	816	738	-	774	741	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	12.1	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	745	575	1404	-	-
HCM Lane V/C Ratio	0.007	-	-	0.039	0.114	-	-	-
HCM Control Delay (s)	7.6	0	-	10	12.1	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	22	117	4	14	237
Future Volume (vph)	32	22	117	4	14	237
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	4%	4%	12%	12%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

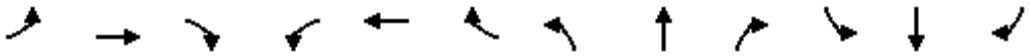
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	22	117	4	14	237
Future Vol, veh/h	32	22	117	4	14	237
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	4	4	12	12	4	4
Mvmt Flow	43	30	158	5	19	320

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	519	161	0	0	163	0
Stage 1	161	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	514	879	-	-	1404	-
Stage 1	863	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	506	879	-	-	1404	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	506	879	1404	-
HCM Lane V/C Ratio	-	-	0.085	0.034	0.013	-
HCM Control Delay (s)	-	-	12.8	9.2	7.6	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	6	10	0	2	1	132	15	8	283	2
Future Volume (vph)	0	0	6	10	0	2	1	132	15	8	283	2
Confl. Peds. (#/hr)	4		4	1		1	4		1	1		4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	33%	33%	33%	8%	8%	8%	10%	10%	10%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 34.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	10	0	2	1	132	15	8	283	2
Future Vol, veh/h	0	0	6	10	0	2	1	132	15	8	283	2
Conflicting Peds, #/hr	4	0	4	1	0	1	4	0	1	1	0	4
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	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	33	33	33	8	8	8	10	10	10	3	3	3
Mvmt Flow	0	0	8	13	0	3	1	176	20	11	377	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	599	604	387	598	595	191	384	0	0	197	0	0
Stage 1	405	405	-	189	189	-	-	-	-	-	-	-
Stage 2	194	199	-	409	406	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.18	6.58	6.28	4.2	-	-	4.13	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.572	4.072	3.372	2.29	-	-	2.227	-	-
Pot Cap-1 Maneuver	371	374	598	405	409	836	1132	-	-	1370	-	-
Stage 1	565	548	-	799	733	-	-	-	-	-	-	-
Stage 2	741	682	-	608	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	364	368	593	394	402	832	1128	-	-	1369	-	-
Mov Cap-2 Maneuver	364	368	-	394	402	-	-	-	-	-	-	-
Stage 1	562	540	-	797	732	-	-	-	-	-	-	-
Stage 2	735	681	-	592	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	13.7	0.1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	593	432	1369	-	-
HCM Lane V/C Ratio	0.001	-	-	0.013	0.037	0.008	-	-
HCM Control Delay (s)	8.2	0	-	11.2	13.7	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	272	9	84	654	23	49
Future Volume (vph)	272	9	84	654	23	49
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	13%	13%	4%	4%	22%	22%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

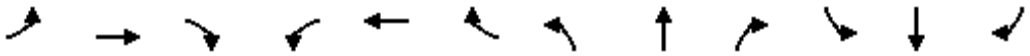
Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	272	9	84	654	23	49
Future Vol, veh/h	272	9	84	654	23	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	13	13	4	4	22	22
Mvmt Flow	320	11	99	769	27	58

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	331	0	1293	326
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	967	-
Critical Hdwy	-	-	4.14	-	6.62	6.42
Critical Hdwy Stg 1	-	-	-	-	5.62	-
Critical Hdwy Stg 2	-	-	-	-	5.62	-
Follow-up Hdwy	-	-	2.236	-	3.698	3.498
Pot Cap-1 Maneuver	-	-	1217	-	163	671
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	339	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1217	-	150	671
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	312	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	150	671	-	-	1217	-
HCM Lane V/C Ratio	0.18	0.086	-	-	0.081	-
HCM Control Delay (s)	34.2	10.9	-	-	8.2	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.3	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	272	5	1	678	5	8	0	1	8	0	10
Future Volume (vph)	21	272	5	1	678	5	8	0	1	8	0	10
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	12%	12%	12%	5%	5%	5%	44%	44%	44%	61%	61%	61%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 49.3%		ICU Level of Service A	
Analysis Period (min) 15			

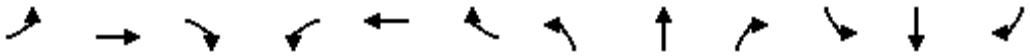
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	272	5	1	678	5	8	0	1	8	0	10
Future Vol, veh/h	21	272	5	1	678	5	8	0	1	8	0	10
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	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	12	12	12	5	5	5	44	44	44	61	61	61
Mvmt Flow	24	316	6	1	788	6	9	0	1	9	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	794	0	0	322	0	0	1166	1163	319	1161	1163	791
Stage 1	-	-	-	-	-	-	367	367	-	793	793	-
Stage 2	-	-	-	-	-	-	799	796	-	368	370	-
Critical Hdwy	4.22	-	-	4.15	-	-	7.54	6.94	6.64	7.71	7.11	6.81
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Follow-up Hdwy	2.308	-	-	2.245	-	-	3.896	4.396	3.696	4.049	4.549	3.849
Pot Cap-1 Maneuver	785	-	-	1221	-	-	141	163	634	132	152	310
Stage 1	-	-	-	-	-	-	575	555	-	306	326	-
Stage 2	-	-	-	-	-	-	323	344	-	547	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	785	-	-	1221	-	-	132	158	634	129	147	310
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	158	-	129	147	-
Stage 1	-	-	-	-	-	-	557	538	-	297	326	-
Stage 2	-	-	-	-	-	-	311	344	-	529	513	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	31.7	25.1
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	132	634	785	-	-	1221	-	-	129	310
HCM Lane V/C Ratio	0.07	0.002	0.031	-	-	0.001	-	-	0.072	0.038
HCM Control Delay (s)	34.3	10.7	9.7	-	-	8	-	-	35.1	17.1
HCM Lane LOS	D	B	A	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.2	0	0.1	-	-	0	-	-	0.2	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	40	0	1	14	451	94	2	162	3
Future Volume (vph)	4	0	7	40	0	1	14	451	94	2	162	3
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	7	40	0	1	14	451	94	2	162	3
Future Vol, veh/h	4	0	7	40	0	1	14	451	94	2	162	3
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	7	7	7	2	2	2	4	4	4
Mvmt Flow	4	0	7	43	0	1	15	480	100	2	172	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	741	789	176	742	740	531	176	0	0	580	0	0
Stage 1	179	179	-	560	560	-	-	-	-	-	-	-
Stage 2	562	610	-	182	180	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.17	6.57	6.27	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.563	4.063	3.363	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	335	325	872	325	339	539	1400	-	-	984	-	-
Stage 1	827	755	-	504	503	-	-	-	-	-	-	-
Stage 2	515	488	-	808	741	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	329	319	870	318	333	538	1399	-	-	984	-	-
Mov Cap-2 Maneuver	329	319	-	318	333	-	-	-	-	-	-	-
Stage 1	813	753	-	496	495	-	-	-	-	-	-	-
Stage 2	505	480	-	799	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	18	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1399	-	-	544	321	984	-	-
HCM Lane V/C Ratio	0.011	-	-	0.022	0.136	0.002	-	-
HCM Control Delay (s)	7.6	0	-	11.8	18	8.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	28	560	24	25	214
Future Volume (vph)	14	28	560	24	25	214
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	2%	5%	5%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

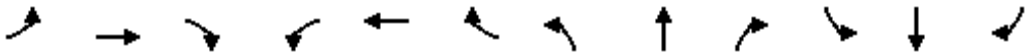
Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	28	560	24	25	214
Future Vol, veh/h	14	28	560	24	25	214
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	5	5
Mvmt Flow	15	30	596	26	27	228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	891	609	0	0	622	0
Stage 1	609	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	315	499	-	-	944	-
Stage 1	547	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	305	499	-	-	944	-
Mov Cap-2 Maneuver	305	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	305	499	944	-
HCM Lane V/C Ratio	-	-	0.049	0.06	0.028	-
HCM Control Delay (s)	-	-	17.4	12.7	8.9	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	1	3	12	0	13	4	596	12	10	227	3
Future Volume (vph)	2	1	3	12	0	13	4	596	12	10	227	3
Confl. Peds. (#/hr)	6		3	2		5	3		2	5		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	6%	6%	6%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	1	3	12	0	13	4	596	12	10	227	3
Future Vol, veh/h	2	1	3	12	0	13	4	596	12	10	227	3
Conflicting Peds, #/hr	6	0	3	2	0	5	3	0	2	5	0	6
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	6	6	6
Mvmt Flow	2	1	3	12	0	13	4	608	12	10	232	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	895	893	243	886	888	625	241	0	0	625	0	0
Stage 1	260	260	-	627	627	-	-	-	-	-	-	-
Stage 2	635	633	-	259	261	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	264	283	801	267	285	488	1326	-	-	937	-	-
Stage 1	749	697	-	475	479	-	-	-	-	-	-	-
Stage 2	470	476	-	750	696	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	251	275	794	260	277	483	1318	-	-	933	-	-
Mov Cap-2 Maneuver	251	275	-	260	277	-	-	-	-	-	-	-
Stage 1	741	684	-	470	474	-	-	-	-	-	-	-
Stage 2	452	471	-	735	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	16.4	0.1	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1318	-	-	390	342	933	-	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.075	0.011	-	-
HCM Control Delay (s)	7.7	0	-	14.4	16.4	8.9	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	496	15	65	445	177	608
Future Volume (vph)	496	15	65	445	177	608
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	49.1

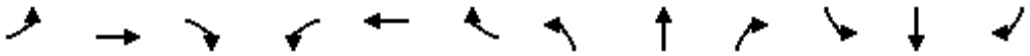
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	496	15	65	445	177	608
Future Vol, veh/h	496	15	65	445	177	608
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	522	16	68	468	186	640

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	538	0	1134	530
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	604	-
Critical Hdwy	-	-	4.14	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.236	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1020	-	223	~ 547
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	208	~ 547
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	112.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	208	547	-	-	1020	-
HCM Lane V/C Ratio	0.896	1.17	-	-	0.067	-
HCM Control Delay (s)	85.6	120	-	-	8.8	-
HCM Lane LOS	F	F	-	-	A	-
HCM 95th %tile Q(veh)	7.1	22.4	-	-	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)	47	492	9	5	599	28	142	9	48	20	1	48
Future Volume (vph)	47	492	9	5	599	28	142	9	48	20	1	48
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	12%	12%	12%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	27.6

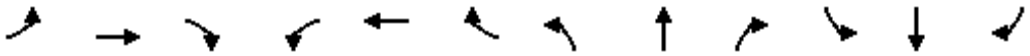
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	492	9	5	599	28	142	9	48	20	1	48
Future Vol, veh/h	47	492	9	5	599	28	142	9	48	20	1	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	12	12	12
Mvmt Flow	49	518	9	5	631	29	149	9	51	21	1	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	660	0	0	527	0	0	1303	1291	523	1307	1281	646
Stage 1	-	-	-	-	-	-	621	621	-	656	656	-
Stage 2	-	-	-	-	-	-	682	670	-	651	625	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.22	6.62	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.608	4.108	3.408
Pot Cap-1 Maneuver	909	-	-	1020	-	-	~ 135	160	546	130	158	454
Stage 1	-	-	-	-	-	-	468	473	-	438	447	-
Stage 2	-	-	-	-	-	-	433	449	-	441	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	909	-	-	1020	-	-	~ 114	151	546	107	149	454
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 114	151	-	107	149	-
Stage 1	-	-	-	-	-	-	443	447	-	414	445	-
Stage 2	-	-	-	-	-	-	382	447	-	371	437	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	190.1	23.8
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	114	386	909	-	-	1020	-	-	107	436
HCM Lane V/C Ratio	1.311	0.155	0.054	-	-	0.005	-	-	0.197	0.118
HCM Control Delay (s)	260	16	9.2	-	-	8.5	-	-	46.7	14.4
HCM Lane LOS	F	C	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	10	0.5	0.2	-	-	0	-	-	0.7	0.4

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)	3	3	17	48	2	3	7	111	30	0	157	1
Future Volume (vph)	3	3	17	48	2	3	7	111	30	0	157	1
Confl. Peds. (#/hr)	2			1		5			1	5		2
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 30.4%		ICU Level of Service A	
Analysis Period (min) 15			

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	3	17	48	2	3	7	111	30	0	157	1
Future Vol, veh/h	3	3	17	48	2	3	7	111	30	0	157	1
Conflicting Peds, #/hr	2	0	0	1	0	5	0	0	1	5	0	2
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	4	22	63	3	4	9	146	39	0	207	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	402	418	211	411	399	176	210	0	0	190	0	0
Stage 1	210	210	-	189	189	-	-	-	-	-	-	-
Stage 2	192	208	-	222	210	-	-	-	-	-	-	-
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	559	526	829	551	539	867	1361	-	-	1384	-	-
Stage 1	792	728	-	813	744	-	-	-	-	-	-	-
Stage 2	810	730	-	780	728	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	548	519	827	527	531	859	1358	-	-	1377	-	-
Mov Cap-2 Maneuver	548	519	-	527	531	-	-	-	-	-	-	-
Stage 1	785	727	-	803	735	-	-	-	-	-	-	-
Stage 2	794	721	-	754	727	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	12.7	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1358	-	-	723	539	1377	-	-
HCM Lane V/C Ratio	0.007	-	-	0.042	0.129	-	-	-
HCM Control Delay (s)	7.7	0	-	10.2	12.7	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	34	23	134	4	15	255
Future Volume (vph)	34	23	134	4	15	255
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	4%	4%	12%	12%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

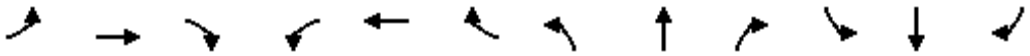
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	23	134	4	15	255
Future Vol, veh/h	34	23	134	4	15	255
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	4	4	12	12	4	4
Mvmt Flow	46	31	181	5	20	345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	569	184	0	0	186	0
Stage 1	184	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	480	853	-	-	1377	-
Stage 1	843	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	471	853	-	-	1377	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	471	853	1377	-
HCM Lane V/C Ratio	-	-	0.098	0.036	0.015	-
HCM Control Delay (s)	-	-	13.5	9.4	7.7	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	6	11	0	2	1	150	16	8	304	2
Future Volume (vph)	0	0	6	11	0	2	1	150	16	8	304	2
Confl. Peds. (#/hr)	4		4	1		1	4		1	1		4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	33%	33%	33%	8%	8%	8%	10%	10%	10%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 35.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	11	0	2	1	150	16	8	304	2
Future Vol, veh/h	0	0	6	11	0	2	1	150	16	8	304	2
Conflicting Peds, #/hr	4	0	4	1	0	1	4	0	1	1	0	4
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	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	33	33	33	8	8	8	10	10	10	3	3	3
Mvmt Flow	0	0	8	15	0	3	1	200	21	11	405	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	651	657	415	651	648	216	412	0	0	222	0	0
Stage 1	433	433	-	214	214	-	-	-	-	-	-	-
Stage 2	218	224	-	437	434	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.18	6.58	6.28	4.2	-	-	4.13	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.572	4.072	3.372	2.29	-	-	2.227	-	-
Pot Cap-1 Maneuver	342	348	576	373	382	809	1105	-	-	1341	-	-
Stage 1	545	532	-	775	714	-	-	-	-	-	-	-
Stage 2	719	664	-	587	571	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	335	342	572	363	376	805	1101	-	-	1340	-	-
Mov Cap-2 Maneuver	335	342	-	363	376	-	-	-	-	-	-	-
Stage 1	542	524	-	773	713	-	-	-	-	-	-	-
Stage 2	713	663	-	570	562	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	14.5	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1101	-	-	572	396	1340	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.044	0.008	-	-
HCM Control Delay (s)	8.3	0	-	11.4	14.5	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	301	10	96	730	24	53
Future Volume (vph)	301	10	96	730	24	53
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	13%	13%	4%	4%	22%	22%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

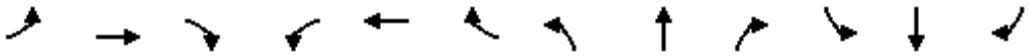
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	301	10	96	730	24	53
Future Vol, veh/h	301	10	96	730	24	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	13	13	4	4	22	22
Mvmt Flow	354	12	113	859	28	62

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	366	0	1445	360
Stage 1	-	-	-	-	360	-
Stage 2	-	-	-	-	1085	-
Critical Hdwy	-	-	4.14	-	6.62	6.42
Critical Hdwy Stg 1	-	-	-	-	5.62	-
Critical Hdwy Stg 2	-	-	-	-	5.62	-
Follow-up Hdwy	-	-	2.236	-	3.698	3.498
Pot Cap-1 Maneuver	-	-	1182	-	131	642
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	297	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1182	-	118	642
Mov Cap-2 Maneuver	-	-	-	-	118	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	268	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	21.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	642	-	-	1182	-
HCM Lane V/C Ratio	0.239	0.097	-	-	0.096	-
HCM Control Delay (s)	44.9	11.2	-	-	8.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.3	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	301	5	1	756	5	8	0	1	8	0	11
Future Volume (vph)	22	301	5	1	756	5	8	0	1	8	0	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	12%	12%	12%	5%	5%	5%	44%	44%	44%	61%	61%	61%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

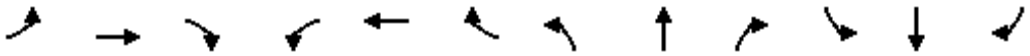
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	301	5	1	756	5	8	0	1	8	0	11
Future Vol, veh/h	22	301	5	1	756	5	8	0	1	8	0	11
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	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	12	12	12	5	5	5	44	44	44	61	61	61
Mvmt Flow	26	350	6	1	879	6	9	0	1	9	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	885	0	0	356	0	0	1296	1292	353	1290	1292	882
Stage 1	-	-	-	-	-	-	405	405	-	884	884	-
Stage 2	-	-	-	-	-	-	891	887	-	406	408	-
Critical Hdwy	4.22	-	-	4.15	-	-	7.54	6.94	6.64	7.71	7.11	6.81
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Follow-up Hdwy	2.308	-	-	2.245	-	-	3.896	4.396	3.696	4.049	4.549	3.849
Pot Cap-1 Maneuver	724	-	-	1186	-	-	114	135	606	106	125	272
Stage 1	-	-	-	-	-	-	547	532	-	270	293	-
Stage 2	-	-	-	-	-	-	285	310	-	520	507	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	724	-	-	1186	-	-	106	130	606	103	120	272
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	130	-	103	120	-
Stage 1	-	-	-	-	-	-	527	513	-	260	293	-
Stage 2	-	-	-	-	-	-	271	310	-	500	489	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	38.7	29.2
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	106	606	724	-	-	1186	-	-	103	272
HCM Lane V/C Ratio	0.088	0.002	0.035	-	-	0.001	-	-	0.09	0.047
HCM Control Delay (s)	42.2	11	10.2	-	-	8	-	-	43.4	18.9
HCM Lane LOS	E	B	B	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.3	0	0.1	-	-	0	-	-	0.3	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	7	42	0	1	15	484	100	2	183	3
Future Volume (vph)	4	0	7	42	0	1	15	484	100	2	183	3
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	0	7	42	0	1	15	484	100	2	183	3
Future Vol, veh/h	4	0	7	42	0	1	15	484	100	2	183	3
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	7	7	7	2	2	2	4	4	4
Mvmt Flow	4	0	7	45	0	1	16	515	106	2	195	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	804	855	199	805	803	569	199	0	0	621	0	0
Stage 1	202	202	-	600	600	-	-	-	-	-	-	-
Stage 2	602	653	-	205	203	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.17	6.57	6.27	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.563	4.063	3.363	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	304	298	847	295	311	512	1373	-	-	950	-	-
Stage 1	805	738	-	479	482	-	-	-	-	-	-	-
Stage 2	490	467	-	786	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	298	292	845	288	304	512	1372	-	-	950	-	-
Mov Cap-2 Maneuver	298	292	-	288	304	-	-	-	-	-	-	-
Stage 1	790	736	-	470	473	-	-	-	-	-	-	-
Stage 2	480	459	-	777	722	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	19.7	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1372	-	-	507	291	950	-	-
HCM Lane V/C Ratio	0.012	-	-	0.023	0.157	0.002	-	-
HCM Control Delay (s)	7.7	0	-	12.3	19.7	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	30	600	25	27	238
Future Volume (vph)	15	30	600	25	27	238
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	2%	5%	5%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

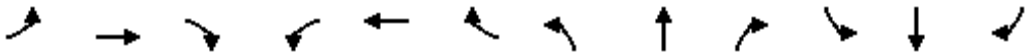
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	30	600	25	27	238
Future Vol, veh/h	15	30	600	25	27	238
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	5	5
Mvmt Flow	16	32	638	27	29	253

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	963	652	0	0	665	0
Stage 1	652	-	-	-	-	-
Stage 2	311	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	286	471	-	-	910	-
Stage 1	522	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	275	471	-	-	910	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	275	471	910	-
HCM Lane V/C Ratio	-	-	0.058	0.068	0.032	-
HCM Control Delay (s)	-	-	18.9	13.2	9.1	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	1	3	13	0	14	4	638	13	11	252	3
Future Volume (vph)	2	1	3	13	0	14	4	638	13	11	252	3
Confl. Peds. (#/hr)	6		3	2		5	3		2	5		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	6%	6%	6%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	1	3	13	0	14	4	638	13	11	252	3
Future Vol, veh/h	2	1	3	13	0	14	4	638	13	11	252	3
Conflicting Peds, #/hr	6	0	3	2	0	5	3	0	2	5	0	6
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	6	6	6
Mvmt Flow	2	1	3	13	0	14	4	651	13	11	257	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	966	964	268	957	959	669	266	0	0	669	0	0
Stage 1	287	287	-	671	671	-	-	-	-	-	-	-
Stage 2	679	677	-	286	288	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	236	257	776	239	259	461	1298	-	-	902	-	-
Stage 1	725	678	-	449	458	-	-	-	-	-	-	-
Stage 2	445	455	-	726	677	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	249	769	232	251	456	1291	-	-	898	-	-
Mov Cap-2 Maneuver	223	249	-	232	251	-	-	-	-	-	-	-
Stage 1	717	664	-	445	453	-	-	-	-	-	-	-
Stage 2	426	450	-	710	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	17.7	0	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1291	-	-	355	311	898	-	-
HCM Lane V/C Ratio	0.003	-	-	0.017	0.089	0.012	-	-
HCM Control Delay (s)	7.8	0	-	15.3	17.7	9.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	568	16	75	498	188	647
Future Volume (vph)	568	16	75	498	188	647
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	84.7

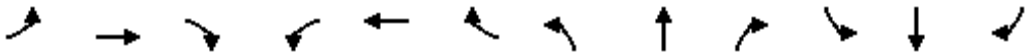
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	568	16	75	498	188	647
Future Vol, veh/h	568	16	75	498	188	647
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	598	17	79	524	198	681

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	615	0	1289	607
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	-	-	4.14	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.236	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	955	-	~ 180	~ 495
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	500	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	955	-	~ 165	~ 495
Mov Cap-2 Maneuver	-	-	-	-	~ 165	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	459	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	201.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	165	495	-	-	955	-
HCM Lane V/C Ratio	1.199	1.376	-	-	0.083	-
HCM Control Delay (s)	189.1	204.8	-	-	9.1	-
HCM Lane LOS	F	F	-	-	A	-
HCM 95th %tile Q(veh)	10.9	31.4	-	-	0.3	-

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)	50	564	10	5	661	30	151	10	51	20	1	51
Future Volume (vph)	50	564	10	5	661	30	151	10	51	20	1	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	12%	12%	12%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	48.9

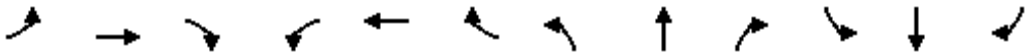
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	564	10	5	661	30	151	10	51	20	1	51
Future Vol, veh/h	50	564	10	5	661	30	151	10	51	20	1	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	12	12	12
Mvmt Flow	53	594	11	5	696	32	159	11	54	21	1	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	605	0	0	1456	1444	600	1460	1433	712
Stage 1	-	-	-	-	-	-	706	706	-	722	722	-
Stage 2	-	-	-	-	-	-	750	738	-	738	711	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.22	6.62	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.608	4.108	3.408
Pot Cap-1 Maneuver	857	-	-	954	-	-	~ 106	129	494	102	128	416
Stage 1	-	-	-	-	-	-	420	433	-	403	417	-
Stage 2	-	-	-	-	-	-	397	418	-	394	422	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	857	-	-	954	-	-	~ 87	120	494	81	119	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 87	120	-	81	119	-
Stage 1	-	-	-	-	-	-	394	406	-	378	415	-
Stage 2	-	-	-	-	-	-	343	416	-	321	396	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.1	$ 357.5	29.1
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	87	327	857	-	-	954	-	-	81	397
HCM Lane V/C Ratio	1.827	0.196	0.061	-	-	0.006	-	-	0.26	0.138
HCM Control Delay (s)	$ 494.4	18.7	9.5	-	-	8.8	-	-	64.4	15.5
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	13.4	0.7	0.2	-	-	0	-	-	0.9	0.5

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)	7	3	34	48	2	3	13	111	30	0	157	3
Future Volume (vph)	7	3	34	48	2	3	13	111	30	0	157	3
Confl. Peds. (#/hr)	2			1		5			1	5		2
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

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	7	3	34	48	2	3	13	111	30	0	157	3
Future Vol, veh/h	7	3	34	48	2	3	13	111	30	0	157	3
Conflicting Peds, #/hr	2	0	0	1	0	5	0	0	1	5	0	2
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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	4	45	63	3	4	17	146	39	0	207	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	419	435	212	440	418	176	213	0	0	190	0	0
Stage 1	211	211	-	205	205	-	-	-	-	-	-	-
Stage 2	208	224	-	235	213	-	-	-	-	-	-	-
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	544	514	828	527	526	867	1357	-	-	1384	-	-
Stage 1	791	728	-	797	732	-	-	-	-	-	-	-
Stage 2	794	718	-	768	726	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	530	503	826	487	515	859	1354	-	-	1377	-	-
Mov Cap-2 Maneuver	530	503	-	487	515	-	-	-	-	-	-	-
Stage 1	778	727	-	782	718	-	-	-	-	-	-	-
Stage 2	773	704	-	722	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	13.4	0.6	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1354	-	-	729	500	1377	-	-
HCM Lane V/C Ratio	0.013	-	-	0.079	0.139	-	-	-
HCM Control Delay (s)	7.7	0	-	10.4	13.4	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	34	23	140	4	16	271
Future Volume (vph)	34	23	140	4	16	271
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles (%)	4%	4%	12%	12%	4%	4%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

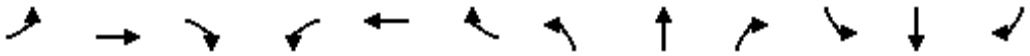
Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	23	140	4	16	271
Future Vol, veh/h	34	23	140	4	16	271
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	4	4	12	12	4	4
Mvmt Flow	46	31	189	5	22	366

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	602	192	0	0	194	0
Stage 1	192	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	459	845	-	-	1367	-
Stage 1	836	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	450	845	-	-	1367	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	450	845	1367	-
HCM Lane V/C Ratio	-	-	0.102	0.037	0.016	-
HCM Control Delay (s)	-	-	13.9	9.4	7.7	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	6	11	0	2	1	156	16	8	320	2
Future Volume (vph)	0	0	6	11	0	2	1	156	16	8	320	2
Confl. Peds. (#/hr)	4		4	1		1	4		1	1		4
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	33%	33%	33%	8%	8%	8%	10%	10%	10%	3%	3%	3%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 36.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	6	11	0	2	1	156	16	8	320	2
Future Vol, veh/h	0	0	6	11	0	2	1	156	16	8	320	2
Conflicting Peds, #/hr	4	0	4	1	0	1	4	0	1	1	0	4
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	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	33	33	33	8	8	8	10	10	10	3	3	3
Mvmt Flow	0	0	8	15	0	3	1	208	21	11	427	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	681	687	437	681	678	224	434	0	0	230	0	0
Stage 1	455	455	-	222	222	-	-	-	-	-	-	-
Stage 2	226	232	-	459	456	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.83	6.53	7.18	6.58	6.28	4.2	-	-	4.13	-	-
Critical Hdwy Stg 1	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.83	-	6.18	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4.297	3.597	3.572	4.072	3.372	2.29	-	-	2.227	-	-
Pot Cap-1 Maneuver	326	333	559	356	367	801	1084	-	-	1332	-	-
Stage 1	530	520	-	767	709	-	-	-	-	-	-	-
Stage 2	712	659	-	571	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	319	327	555	346	361	797	1080	-	-	1331	-	-
Mov Cap-2 Maneuver	319	327	-	346	361	-	-	-	-	-	-	-
Stage 1	527	512	-	765	708	-	-	-	-	-	-	-
Stage 2	706	658	-	554	550	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	15	0	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1080	-	-	555	379	1331	-	-
HCM Lane V/C Ratio	0.001	-	-	0.014	0.046	0.008	-	-
HCM Control Delay (s)	8.3	0	-	11.6	15	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	305	10	99	740	24	54
Future Volume (vph)	305	10	99	740	24	54
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	13%	13%	4%	4%	22%	22%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

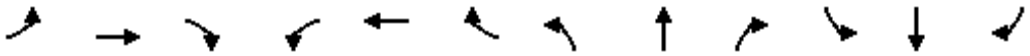
Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	305	10	99	740	24	54
Future Vol, veh/h	305	10	99	740	24	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	13	13	4	4	22	22
Mvmt Flow	359	12	116	871	28	64

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	371	0	1468	365
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	1103	-
Critical Hdwy	-	-	4.14	-	6.62	6.42
Critical Hdwy Stg 1	-	-	-	-	5.62	-
Critical Hdwy Stg 2	-	-	-	-	5.62	-
Follow-up Hdwy	-	-	2.236	-	3.698	3.498
Pot Cap-1 Maneuver	-	-	1177	-	127	638
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	291	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1177	-	114	638
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	262	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	22.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	114	638	-	-	1177	-
HCM Lane V/C Ratio	0.248	0.1	-	-	0.099	-
HCM Control Delay (s)	46.7	11.3	-	-	8.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.3	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	305	5	2	765	5	8	0	1	8	0	11
Future Volume (vph)	22	305	5	2	765	5	8	0	1	8	0	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	12%	12%	12%	5%	5%	5%	44%	44%	44%	61%	61%	61%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

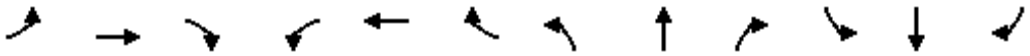
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	305	5	2	765	5	8	0	1	8	0	11
Future Vol, veh/h	22	305	5	2	765	5	8	0	1	8	0	11
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	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	12	12	12	5	5	5	44	44	44	61	61	61
Mvmt Flow	26	355	6	2	890	6	9	0	1	9	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	896	0	0	361	0	0	1314	1310	358	1308	1310	893
Stage 1	-	-	-	-	-	-	410	410	-	897	897	-
Stage 2	-	-	-	-	-	-	904	900	-	411	413	-
Critical Hdwy	4.22	-	-	4.15	-	-	7.54	6.94	6.64	7.71	7.11	6.81
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.94	-	6.71	6.11	-
Follow-up Hdwy	2.308	-	-	2.245	-	-	3.896	4.396	3.696	4.049	4.549	3.849
Pot Cap-1 Maneuver	717	-	-	1181	-	-	110	131	601	103	122	268
Stage 1	-	-	-	-	-	-	543	529	-	265	289	-
Stage 2	-	-	-	-	-	-	280	306	-	516	504	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	717	-	-	1181	-	-	102	126	601	100	117	268
Mov Cap-2 Maneuver	-	-	-	-	-	-	102	126	-	100	117	-
Stage 1	-	-	-	-	-	-	523	510	-	255	288	-
Stage 2	-	-	-	-	-	-	266	305	-	496	486	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	40.2	29.9
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	102	601	717	-	-	1181	-	-	100	268
HCM Lane V/C Ratio	0.091	0.002	0.036	-	-	0.002	-	-	0.093	0.048
HCM Control Delay (s)	43.8	11	10.2	-	-	8.1	-	-	44.7	19.1
HCM Lane LOS	E	B	B	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.3	0	0.1	-	-	0	-	-	0.3	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	0	18	42	0	1	35	484	100	2	183	8
Future Volume (vph)	7	0	18	42	0	1	35	484	100	2	183	8
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	7%	7%	7%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

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	7	0	18	42	0	1	35	484	100	2	183	8
Future Vol, veh/h	7	0	18	42	0	1	35	484	100	2	183	8
Conflicting Peds, #/hr	1	0	1	0	0	0	1	0	0	0	0	1
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	7	7	7	2	2	2	4	4	4
Mvmt Flow	7	0	19	45	0	1	37	515	106	2	195	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	849	900	202	856	851	569	205	0	0	621	0	0
Stage 1	205	205	-	642	642	-	-	-	-	-	-	-
Stage 2	644	695	-	214	209	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.17	6.57	6.27	4.12	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.17	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.563	4.063	3.363	2.218	-	-	2.236	-	-
Pot Cap-1 Maneuver	283	280	844	272	292	512	1366	-	-	950	-	-
Stage 1	802	736	-	454	461	-	-	-	-	-	-	-
Stage 2	465	447	-	777	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	273	267	842	257	279	512	1365	-	-	950	-	-
Mov Cap-2 Maneuver	273	267	-	257	279	-	-	-	-	-	-	-
Stage 1	768	734	-	435	442	-	-	-	-	-	-	-
Stage 2	444	428	-	757	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	21.8	0.4	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1365	-	-	532	260	950	-	-
HCM Lane V/C Ratio	0.027	-	-	0.05	0.176	0.002	-	-
HCM Control Delay (s)	7.7	0	-	12.1	21.8	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.6	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	31	619	25	28	248
Future Volume (vph)	15	31	619	25	28	248
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	2%	5%	5%
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

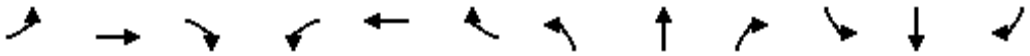
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	31	619	25	28	248
Future Vol, veh/h	15	31	619	25	28	248
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	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	5	5
Mvmt Flow	16	33	659	27	30	264

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	997	673	0	0	686	0
Stage 1	673	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.15	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.245	-
Pot Cap-1 Maneuver	273	459	-	-	894	-
Stage 1	511	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	262	459	-	-	894	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	709	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	262	459	894	-
HCM Lane V/C Ratio	-	-	0.061	0.072	0.033	-
HCM Control Delay (s)	-	-	19.6	13.4	9.2	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	1	3	13	0	14	4	657	13	11	262	3
Future Volume (vph)	2	1	3	13	0	14	4	657	13	11	262	3
Confl. Peds. (#/hr)	6		3	2		5	3		2	5		6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	6%	6%	6%
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 48.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	1	3	13	0	14	4	657	13	11	262	3
Future Vol, veh/h	2	1	3	13	0	14	4	657	13	11	262	3
Conflicting Peds, #/hr	6	0	3	2	0	5	3	0	2	5	0	6
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	6	6	6
Mvmt Flow	2	1	3	13	0	14	4	670	13	11	267	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	995	993	278	986	988	688	276	0	0	688	0	0
Stage 1	297	297	-	690	690	-	-	-	-	-	-	-
Stage 2	698	696	-	296	298	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.254	-	-
Pot Cap-1 Maneuver	226	247	766	229	249	450	1287	-	-	888	-	-
Stage 1	716	671	-	439	449	-	-	-	-	-	-	-
Stage 2	434	446	-	717	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	213	239	759	222	241	445	1280	-	-	884	-	-
Mov Cap-2 Maneuver	213	239	-	222	241	-	-	-	-	-	-	-
Stage 1	708	657	-	435	445	-	-	-	-	-	-	-
Stage 2	416	442	-	700	657	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	18.2	0	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	342	300	884	-	-
HCM Lane V/C Ratio	0.003	-	-	0.018	0.092	0.013	-	-
HCM Control Delay (s)	7.8	0	-	15.7	18.2	9.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	580	16	76	505	188	650
Future Volume (vph)	580	16	76	505	188	650
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	90.3

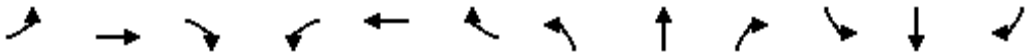
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	580	16	76	505	188	650
Future Vol, veh/h	580	16	76	505	188	650
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	165	-	0	125
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	611	17	80	532	198	684

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	628	0	1312	620
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	692	-
Critical Hdwy	-	-	4.14	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.236	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	944	-	~ 174	~ 486
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	495	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	944	-	~ 159	~ 486
Mov Cap-2 Maneuver	-	-	-	-	~ 159	-
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	453	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	216.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	159	486	-	-	944	-
HCM Lane V/C Ratio	1.245	1.408	-	-	0.085	-
HCM Control Delay (s)	208	218.7	-	-	9.2	-
HCM Lane LOS	F	F	-	-	A	-
HCM 95th %tile Q(veh)	11.4	32.6	-	-	0.3	-

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)	50	575	10	6	667	30	151	10	51	21	1	51
Future Volume (vph)	50	575	10	6	667	30	151	10	51	21	1	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	12%	12%	12%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	51.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	575	10	6	667	30	151	10	51	21	1	51
Future Vol, veh/h	50	575	10	6	667	30	151	10	51	21	1	51
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	190	-	-	275	-	-	175	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	12	12	12
Mvmt Flow	53	605	11	6	702	32	159	11	54	22	1	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	734	0	0	616	0	0	1475	1463	611	1479	1452	718
Stage 1	-	-	-	-	-	-	717	717	-	730	730	-
Stage 2	-	-	-	-	-	-	758	746	-	749	722	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.16	6.56	6.26	7.22	6.62	6.32
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.56	-	6.22	5.62	-
Follow-up Hdwy	2.254	-	-	2.254	-	-	3.554	4.054	3.354	3.608	4.108	3.408
Pot Cap-1 Maneuver	853	-	-	945	-	-	~ 102	126	486	99	124	413
Stage 1	-	-	-	-	-	-	414	428	-	399	413	-
Stage 2	-	-	-	-	-	-	393	415	-	389	417	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	853	-	-	945	-	-	~ 84	117	486	78	116	413
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 84	117	-	78	116	-
Stage 1	-	-	-	-	-	-	388	401	-	374	411	-
Stage 2	-	-	-	-	-	-	339	413	-	316	391	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	$ 379.9	30.8
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	84	320	853	-	-	945	-	-	78	394
HCM Lane V/C Ratio	1.892	0.201	0.062	-	-	0.007	-	-	0.283	0.139
HCM Control Delay (s)	$ 525.7	19.1	9.5	-	-	8.8	-	-	68.5	15.6
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	13.7	0.7	0.2	-	-	0	-	-	1	0.5

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

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	568	16	75	498	188	647
Future Volume (vph)	568	16	75	498	188	647
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary			
Control Type: Roundabout			
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

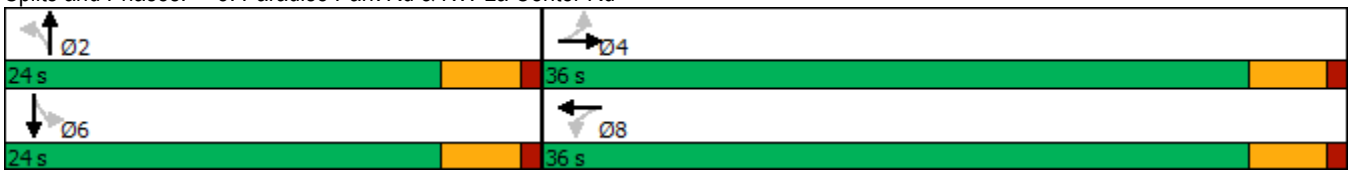
Approach	EB	WB	NB
Entry Lanes	1	2	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	615	603	879
Demand Flow Rate, veh/h	627	627	905
Vehicles Circulating, veh/h	82	204	610
Vehicles Exiting, veh/h	749	1311	99
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.2	7.6	24.7
Approach LOS	A	A	C

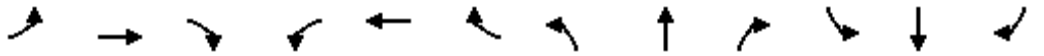
Lane	Left	Left	Right	Left	Right
Designated Moves	TR	L	TR	L	TR
Assumed Moves	TR	L	TR	L	TR
RT Channelized					
Lane Util	1.000	0.131	0.869	0.225	0.775
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	627	82	545	204	701
Cap Entry Lane, veh/h	1269	1179	1179	815	815
Entry HV Adj Factor	0.981	0.963	0.962	0.971	0.971
Flow Entry, veh/h	615	79	524	198	681
Cap Entry, veh/h	1245	1136	1134	791	792
V/C Ratio	0.494	0.070	0.462	0.250	0.860
Control Delay, s/veh	8.2	3.8	8.2	7.3	29.8
LOS	A	A	A	A	D
95th %tile Queue, veh	3	0	2	1	10

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	564	10	5	661	30	151	10	51	20	1	51
Future Volume (vph)	50	564	10	5	661	30	151	10	51	20	1	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	12%	12%	12%
Shared Lane Traffic (%)												
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)	36.0	36.0		36.0	36.0		24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
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		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	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)	22.7	22.7		22.7	22.7		11.2	11.2		11.2	11.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.26	0.26		0.26	0.26	
v/c Ratio	0.25	0.65		0.02	0.78		0.48	0.15		0.07	0.13	
Control Delay	9.8	11.7		5.8	16.1		21.0	7.3		14.9	6.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.8	11.7		5.8	16.1		21.0	7.3		14.9	6.3	
LOS	A	B		A	B		C	A		B	A	
Approach Delay		11.5			16.0			17.0			8.7	
Approach LOS		B			B			B			A	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 43.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Paradise Park Rd & NW La Center Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	564	10	5	661	30	151	10	51	20	1	51
Future Volume (veh/h)	50	564	10	5	661	30	151	10	51	20	1	51
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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1722	1722	1722
Adj Flow Rate, veh/h	53	594	11	5	696	32	159	11	54	21	1	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	12	12	12
Cap, veh/h	352	947	18	436	918	42	442	58	283	424	6	311
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	704	1772	33	789	1718	79	1306	267	1309	1231	27	1437
Grp Volume(v), veh/h	53	0	605	5	0	728	159	0	65	21	0	55
Grp Sat Flow(s),veh/h/ln	704	0	1805	789	0	1797	1306	0	1575	1231	0	1464
Q Serve(g_s), s	2.3	0.0	8.5	0.2	0.0	11.5	4.1	0.0	1.2	0.5	0.0	1.1
Cycle Q Clear(g_c), s	13.8	0.0	8.5	8.6	0.0	11.5	5.2	0.0	1.2	1.7	0.0	1.1
Prop In Lane	1.00		0.02	1.00		0.04	1.00		0.83	1.00		0.98
Lane Grp Cap(c), veh/h	352	0	964	436	0	960	442	0	341	424	0	317
V/C Ratio(X)	0.15	0.00	0.63	0.01	0.00	0.76	0.36	0.00	0.19	0.05	0.00	0.17
Avail Cap(c_a), veh/h	590	0	1575	702	0	1567	865	0	851	822	0	790
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	5.9	8.9	0.0	6.6	13.6	0.0	11.6	12.3	0.0	11.5
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.0	0.0	1.3	0.5	0.0	0.3	0.0	0.0	0.3
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	0.3	0.0	1.0	0.0	0.0	1.4	1.0	0.0	0.3	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.2	0.0	6.6	8.9	0.0	7.8	14.1	0.0	11.8	12.3	0.0	11.8
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		658			733			224			76	
Approach Delay, s/veh		7.0			7.8			13.5			11.9	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.3		23.8		12.3		23.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		7.2		15.8		3.7		13.5				
Green Ext Time (p_c), s		0.6		3.5		0.2		4.3				
Intersection Summary												
HCM 6th Ctrl Delay			8.5									
HCM 6th LOS			A									

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	580	16	76	505	188	650
Future Volume (vph)	580	16	76	505	188	650
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Sign Control	Yield			Yield	Yield	

Intersection Summary			
Control Type: Roundabout			
Intersection Capacity Utilization 78.4%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

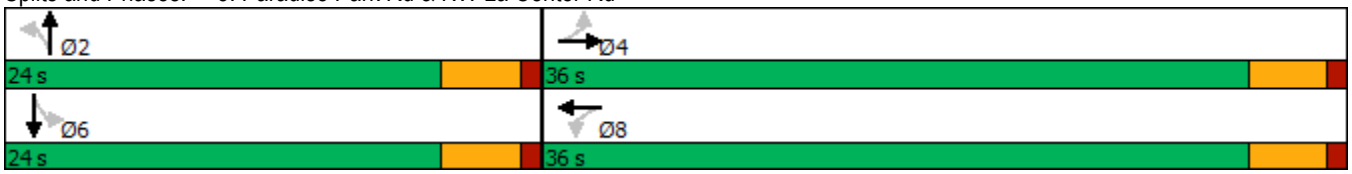
Approach	EB	WB	NB
Entry Lanes	1	2	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	628	612	882
Demand Flow Rate, veh/h	640	636	909
Vehicles Circulating, veh/h	83	204	623
Vehicles Exiting, veh/h	757	1328	100
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.3	7.7	26.4
Approach LOS	A	A	D

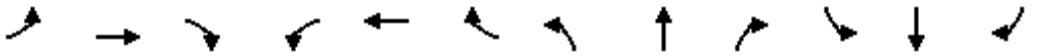
Lane	Left	Left	Right	Left	Right
Designated Moves	TR	L	TR	L	TR
Assumed Moves	TR	L	TR	L	TR
RT Channelized					
Lane Util	1.000	0.131	0.869	0.224	0.776
Follow-Up Headway, s	2.609	2.535	2.535	2.535	2.535
Critical Headway, s	4.976	4.544	4.544	4.544	4.544
Entry Flow, veh/h	640	83	553	204	705
Cap Entry Lane, veh/h	1268	1179	1179	806	806
Entry HV Adj Factor	0.981	0.964	0.962	0.971	0.970
Flow Entry, veh/h	628	80	532	198	684
Cap Entry, veh/h	1244	1137	1134	782	782
V/C Ratio	0.505	0.070	0.469	0.253	0.875
Control Delay, s/veh	8.3	3.8	8.3	7.4	31.9
LOS	A	A	A	A	D
95th %tile Queue, veh	3	0	3	1	11

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	575	10	6	667	30	151	10	51	21	1	51
Future Volume (vph)	50	575	10	6	667	30	151	10	51	21	1	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	6%	6%	6%	6%	6%	6%	6%	6%	6%	12%	12%	12%
Shared Lane Traffic (%)												
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)	36.0	36.0		36.0	36.0		24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%		60.0%	60.0%		40.0%	40.0%		40.0%	40.0%	
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		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	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Act Effct Green (s)	23.0	23.0		23.0	23.0		11.2	11.2		11.2	11.2	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.26	0.26		0.26	0.26	
v/c Ratio	0.25	0.66		0.02	0.79		0.48	0.15		0.07	0.13	
Control Delay	9.8	11.8		5.8	16.2		21.2	7.3		15.1	6.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	9.8	11.8		5.8	16.2		21.2	7.3		15.1	6.4	
LOS	A	B		A	B		C	A		B	A	
Approach Delay		11.7			16.1			17.2			8.9	
Approach LOS		B			B			B			A	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 43.9	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Paradise Park Rd & NW La Center Rd

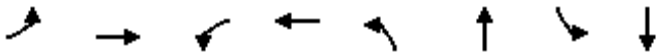




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	575	10	6	667	30	151	10	51	21	1	51
Future Volume (veh/h)	50	575	10	6	667	30	151	10	51	21	1	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1811	1811	1811	1811	1811	1811	1811	1811	1811	1722	1722	1722
Adj Flow Rate, veh/h	53	605	11	6	702	32	159	11	54	22	1	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	6	6	6	6	6	6	12	12	12
Cap, veh/h	350	952	17	430	923	42	440	58	283	422	6	310
Arrive On Green	0.54	0.54	0.54	0.54	0.54	0.54	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	700	1773	32	781	1719	78	1306	267	1309	1231	27	1437
Grp Volume(v), veh/h	53	0	616	6	0	734	159	0	65	22	0	55
Grp Sat Flow(s),veh/h/ln	700	0	1805	781	0	1797	1306	0	1575	1231	0	1464
Q Serve(g_s), s	2.3	0.0	8.7	0.2	0.0	11.6	4.1	0.0	1.2	0.5	0.0	1.1
Cycle Q Clear(g_c), s	14.0	0.0	8.7	8.9	0.0	11.6	5.2	0.0	1.2	1.8	0.0	1.1
Prop In Lane	1.00		0.02	1.00		0.04	1.00		0.83	1.00		0.98
Lane Grp Cap(c), veh/h	350	0	970	430	0	965	440	0	340	422	0	316
V/C Ratio(X)	0.15	0.00	0.64	0.01	0.00	0.76	0.36	0.00	0.19	0.05	0.00	0.17
Avail Cap(c_a), veh/h	579	0	1560	685	0	1553	856	0	843	815	0	783
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	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	5.9	9.1	0.0	6.6	13.8	0.0	11.7	12.4	0.0	11.6
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.0	0.0	1.3	0.5	0.0	0.3	0.1	0.0	0.3
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	0.3	0.0	1.0	0.0	0.0	1.4	1.0	0.0	0.4	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	0.0	6.6	9.1	0.0	7.9	14.3	0.0	12.0	12.5	0.0	11.9
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		669			740			224			77	
Approach Delay, s/veh		7.1			7.9			13.6			12.1	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		12.4		24.1		12.4		24.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		19.5		31.5		19.5		31.5				
Max Q Clear Time (g_c+I1), s		7.2		16.0		3.8		13.6				
Green Ext Time (p_c), s		0.6		3.6		0.2		4.4				

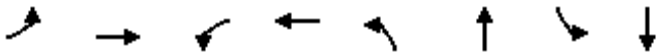
Intersection Summary												
HCM 6th Ctrl Delay			8.5									
HCM 6th LOS			A									



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	605	5	728	159	65	21	55
v/c Ratio	0.25	0.65	0.02	0.78	0.48	0.15	0.07	0.13
Control Delay	9.8	11.7	5.8	16.1	21.0	7.3	14.9	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	11.7	5.8	16.1	21.0	7.3	14.9	6.3
Queue Length 50th (ft)	6	89	1	119	33	2	4	0
Queue Length 95th (ft)	28	222	5	#304	90	25	18	21
Internal Link Dist (ft)		397		616		491		463
Turn Bay Length (ft)	190		275		175		120	
Base Capacity (vph)	309	1337	436	1332	621	782	583	723
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.45	0.01	0.55	0.26	0.08	0.04	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	616	6	734	159	65	22	55
v/c Ratio	0.25	0.66	0.02	0.79	0.48	0.15	0.07	0.13
Control Delay	9.8	11.8	5.8	16.2	21.2	7.3	15.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	11.8	5.8	16.2	21.2	7.3	15.1	6.4
Queue Length 50th (ft)	6	92	1	121	33	2	4	0
Queue Length 95th (ft)	28	228	5	#316	90	25	19	21
Internal Link Dist (ft)		397		616		491		463
Turn Bay Length (ft)	190		275		175		120	
Base Capacity (vph)	304	1330	425	1325	616	776	579	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.46	0.01	0.55	0.26	0.08	0.04	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.