La Center Middle School Traffic Impact Analysis

2001 NE Lockwood Creek Road
La Center, Washington 98629

Prepared for:

La Center School District
725 NE Highland Road
La Center, Washington 98629

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PBS Project 71282.000
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1 EXECUTIVE SUMMARY

1.1 Purpose and Scope

The applicant proposes the construction of a new La Center Middle School (LCMS) adjacent to and south of NE Lockwood Creek Road in La Center, Washington. The proposed site is approximately 17.32 acres and the development will include an approximately 81,648 square foot (SF) classroom building,[1] physical education fields, basketball courts, outdoor classroom areas, parking lots, and drop-off zones. The frontage improvements of NE Lockwood Creek Road will be included with as part of the La Center Middle School project. The anticipated build-out date of this project is 2020. This report analyzes the traffic impacts generated by the completed development as required by the City of La Center (City).

NAC Architects prepared a site plan for the La Center Middle School project. The proposed development will occupy multiple tax lots that are classified as "LDR 7.5 – Low Density Residential," per the City's zoning description. See Figure 1 for the vicinity map and Figure 2 for the preliminary site plan.

The following intersections were identified for this traffic impact analysis (TIA):

1. Aspen Avenue and W 4th Street
2. E Stonecreek Drive and E 4th Street
3. Bobcat West Driveway and E 4th Street (at the existing elementary/middle school campus)
4. Bobcat East Driveway and E 4th Street (at the existing elementary/middle school campus)
5. NE Highland Road/E Ivy Avenue and E 4th Street
6. E Ivy Avenue and Bobcat Exit-Only Driveway (at the existing elementary/middle school campus)
7. Hawk West Driveway and NE Lockwood Creek Road (at the proposed middle school campus)
8. Hawk East Driveway and NE Lockwood Creek Road (at the proposed middle school campus)
9. NE 40th Avenue and NE Lockwood Creek Road

1.2 Findings

The findings of this traffic impact analysis are identified below.

Traffic volumes in the study area will continue to increase with or without the project. A background 2.0 percent annual growth rate is applied throughout the study area, and the traffic impacts of four in-process projects are added to the study area to evaluate the background conditions.

The City's standard for access spacing along minor arterials is 600 feet. The two LCMS site driveways are proposed in locations spaced approximately 560 feet from each other, and several existing residential driveways and road intersections are within 600 feet of each proposed driveway. The spacing distances will fall below the standard, yet few vehicle conflicts are expected due to the low volumes at the residential driveways and low speeds on NE Lockwood Creek Road. The proposed 560-foot spacing represents a practical maximum when considering the competing priorities to (1) separate the parent and visitor traffic from the school bus and staff traffic, (2) maximize the utility of the site layout, and (3) protect as many on-site wetlands as possible.

The relocated LCMS is estimated to generate approximately 1,125 weekday trips, including 355 trips during the AM peak hour, 206 trips during the midday peak hour around school dismissal, and 97 trips during the PM peak hour. These will be offset by the reduction in traffic at the existing LCMS, which is estimated to generate

[1] Note that the conditional use application reflects a smaller building of approximately 77,275 SF. The larger size listed here has been discussed with the La Center School District and the design team as a potential maximum, and the larger size was used here for a conservative traffic analysis.

approximately 762 weekday trips, including 241 trips during the AM peak hour, 139 trips during the midday peak hour around school dismissal, and 66 trips during the PM peak hour.

The forecast volumes at the LCMS site driveways were evaluated using the Washington State Department of Transportation (WSDOT) guidelines for installation of left- and right-turn lanes for vehicles entering the site. Based on the low left-turn volumes and the low roadway speeds, neither evaluation found a turn lane was required or recommended.

The 2013–2017 collision history at the study intersections was reviewed; all intersections have collision rates lower than the critical rate, and no patterns of collision types or of severe collisions were identified.

School bus service is provided at the existing La Center Elementary/Middle School and will be expanded as needed to accommodate increased enrollment with the relocated LCMS. School buses will serve the new LCMS campus within their own circulation loop that will be shared with staff parking but separated from visitor/student parking.

The existing public transit service stop in La Center is within walking distance of the project, as it is approximately 2,500 feet away from the proposed middle school campus. The transit stop is a part of the C-TRAN Connector route that provides peak hour service for residents within Camas, La Center, and Ridgefield. The C-TRAN Connector provides transportation assistance in the form of fully accessible dial-a-ride (reservation-based service) services and scheduled stop services at designated stops within the service areas. This existing public transit service will not be extended with the project.

At the project's completion, public sidewalks will run along the south side of NE Lockwood Creek Road between the Hawk West Driveway and the Hawk East Driveway, and a new pedestrian path will connect between the LCMS site frontage sidewalk and the existing sidewalk near E Spruce Avenue. The path will connect LCMS with the rest of the City's pedestrian infrastructure network. The project also will provide an eastbound bike lane on NE Lockwood Creek Road.

Nine intersections (including five driveway intersections) were evaluated for operational performance based on level of service (LOS) and volume-to-capacity (v/c) ratio, which measure traffic operations. With one exception, all locations operate within the applicable LOS standard during all analysis scenarios, both without and with the project trips. The northbound approach at the NE Highland Road/E Ivy Avenue/E 4th Street intersection operates at LOS "F," exceeding the applicable LOS E standard during the AM peak hour, both without and with project trips. The intersection peak hour volumes do not appear to meet thresholds for MUTCD traffic signal warrants. However, this matches the condition observed in the City's *Transportation Capital Facilities Plan*, and the LCMS project is anticipated to improve the approach performance, i.e., reduce the approach delay. Therefore, no LOS mitigation is merited, required, or recommended.

1.3 Recommendations

This traffic impact analysis supports the following recommendations.

- Request an engineering design modification from the City for the substandard access spacing conditions proposed.
- Assure all driveways, sidewalks, and curb ramps constructed with the project are ADA compliant.
- Establish a 20 miles per hour (mph) school speed zone along NE Lockwood Creek Road defined by School Speed Zone sign assemblies (MUTCD sign S5-1 with beacons) and advance warning signs

(MUTCD sign S1-1 with W16-9P) in each direction. The beacons should flash during the typical AM and midday peak periods when students will be arriving and departing the campus.

- The City of La Center should consider applying a 25 mph speed limit across the LCMS frontage to make this segment consistent with the rest of the E 4th Street-NE Lockwood Creek Road corridor.
- Design the proposed driveway access points consistent with Chapter 9.5.3 of the AASHTO *Geometric Design* guide for intersection sight distance. Install no objects within the sight distance triangles that would block exiting drivers' view at the access points.

2 INTRODUCTION

The purpose of this study is to determine the impacts of the traffic generated by the La Center Middle School (LCMS) project on the surrounding roadway infrastructure. The project site is shown on the vicinity map (Figure 1). This study will determine if mitigation is required to keep the roadways operating safely and at capacity levels acceptable under the current level of service standards. This report documents the findings and conclusions of a traffic impact analysis (TIA) conducted for the proposed site plan (Figure 2) as required for a conditional use application by the City of La Center, Washington (City).

2.1 Scope of Study

This study documents the existing and proposed conditions, traffic data, safety analysis, and intersection operations in accordance with the requirements of the City.

The following intersections are addressed in this analysis:

1. Aspen Avenue and W 4th Street
2. E Stonecreek Drive and E 4th Street
3. Bobcat West Driveway and E 4th Street[2]
4. Bobcat East Driveway and E 4th Street[3]
5. NE Highland Road/E Ivy Avenue and E 4th Street
6. E Ivy Avenue and Bobcat Exit-Only Driveway[4]
7. Hawk West Driveway and NE Lockwood Creek Road[5]
8. Hawk East Driveway and NE Lockwood Creek Road[6]
9. NE 40th Avenue and NE Lockwood Creek Road

This TIA includes analysis of future background conditions growth based on an assumed 2.0 percent annual growth rate and the addition of traffic from in-process projects.

This TIA is prepared for submission to the City of La Center. The traffic-related issues addressed in this report include:

- Existing traffic conditions
- Proposed site-generated traffic volumes and their distribution
- Build-out year (2020) conditions without and with the project
- Capacity analysis of the existing and future conditions for weekday peak hours: AM, midday (at school dismissal), and PM
- Safety evaluation of the existing and future conditions
- Recommendations for mitigation of traffic impacts and conclusions

2.2 Existing Site Conditions

The existing site spans multiple parcels on the south side of NE Lockwood Creek Road between E 18th Place and NE 23rd Avenue. The proposed development will occupy multiple tax lots that are classified as "LDR 7.5 –

[2] This driveway serves the existing elementary/middle school campus. The "bobcat" name refers to the elementary school mascot.
[3] See note 2.
[4] See note 2.
[5] This driveway serves the proposed middle school campus. The "hawk" name refers to the middle school mascot.
[6] See note 5.

Low Density Residential," per the City's zoning description. The existing site is currently free of structures and contains some pasture grass, trees, and wetlands.

2.3 Existing Infrastructure

The existing infrastructure and operational traffic conditions in the study area were documented. Roadway conditions were studied to confirm that the roadway is currently operating in a safe and efficient manner.

2.3.1 Land Uses

The land uses surrounding the site are documented to help identify the site location and provide reference for any discussion of conditions that might impact the adjacent properties. The land uses surrounding the site are shown in Table 1.

Table 1. Land Uses Around the Site

North of Site	
Zoning	R1-7.5, UH-10
Description	Single Family Residential, Urban Holding-10
Existing Use	Residential

West of Site	
Zoning	LDR-7.5, UH-10, AG-20
Description	Low Density Residential, Urban Holding-10, Agriculture
Existing Use	Residential and Agriculture

S I T E

East of Site	
Zoning	LDR-7.5, UH-10
Description	Low Density Residential, Urban Holding-10
Existing Use	Residential and Agriculture

South of Site	
Zoning	AG-20
Description	Agriculture
Existing Use	Agriculture

2.3.2 Existing Roadways

The existing arterial roadway providing access to the site is NE Lockwood Creek Road. Data was gathered on this and other roadways in the study area to inform operations analysis of the existing roadway system. The pertinent information regarding the study area roadways is tabulated in Table 2.

Table 2. Existing Roadway Information

Roadway Name	Classification[1]	Speed Limit	Lane Configuration		
			Lanes	Sidewalks	Bike Lanes
E 4th Street – NE Lockwood Creek Road corridor					
NW Pacific Hwy to E Cedar Avenue	Minor Arterial	25[3]	2	Yes	No
E Cedar Avenue to Bobcat East Driveway				Partial	
Bobcat East Driveway to La Center Community Library Driveway				Yes	
La Center Community Library Driveway to E Spruce Avenue		25		Partial	
E Spruce Avenue to NE 24th Avenue		35		No	
NE 24th Avenue to east of NE 40th Avenue	Rural Major Collector	50[2]			
Aspen Avenue	Major Collector	25	2	Yes	No
E Stonecreek Drive	Local Street	20[2]	2	Yes	No
NE Highland Road	Major Collector	25[3]	2	Partial	Partial
E Ivy Avenue corridor					
E 4th Street/NE Lockwood Creek Road to Holley Park Driveway	Private Street	20[2,3]	2	Yes	No
Holley Park Driveway to Bobcat Exit-Only Driveway				Partial	No
NE 40th Avenue	Rural Major Collector	50[2]	2	No	No

[1] Based on City of La Center *Capital Facilities Plan* (see References) and Clark County MapsOnline
[2] Assumed
[3] A 20-mph school speed zone applies when children are present.

2.3.3 Major Intersections and Traffic Control

The following are the intersections being reviewed in the study area:

- Aspen Avenue and W 4th Street
- E Stonecreek Drive and E 4th Street
- Bobcat West Driveway and E 4th Street
- Bobcat East Driveway and E 4th Street
- NE Highland Road/E Ivy Avenue and E 4th Street
- E Ivy Avenue and Bobcat Exit-Only Driveway
- Hawk West Driveway and NE Lockwood Creek Road
- Hawk East Driveway and NE Lockwood Creek Road
- NE 40th Avenue and NE Lockwood Creek Road

The information shown in Table 3 was gathered and is relevant to the intersection operations analysis noted above. Table 3 presents the existing geometrics and traffic control at the study intersections.

Table 3. Major Intersections: Existing Lanes and Traffic Controls

Intersection	***Aspen Avenue and W 4th Street***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	N/A	Stop	Unc.	Unc.
Number of Lanes	N/A	2	1	2

Intersection	***E Stonecreek Drive and E 4th Street***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	N/A	Stop	Unc.	Unc.
Number of Lanes	N/A	1	1	1

Intersection	***Bobcat West Driveway and E 4th Street***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	Stop	N/A	Unc.	Unc.
Number of Lanes	2	N/A	1	1

Intersection	***Bobcat East Driveway and E 4th Street***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	Stop*	N/A	Unc.	Unc.
Number of Lanes	1*	N/A	2	1

Intersection	***NE Highland Road/E Ivy Avenue and E 4th Street***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	Stop	Stop	Unc.	Unc.
Number of Lanes	2	2	2	2

Intersection	***E Ivy Avenue and Bobcat Exit-Only Driveway***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	Unc.	Unc.	N/A	Unc.**
Number of Lanes	1	1	N/A	1

Intersection	***NE 40th Avenue and NE Lockwood Creek Road***			
Leg	**NB**	**SB**	**WB**	**EB**
Control	Stop	N/A	Unc.	Unc.
Number of Lanes	1	N/A	1	1

Stop = Stop controlled leg of intersection
Unc. = Uncontrolled leg approaching intersection – does not stop or yield
* Typically the driveway operates as enter-only, but some exiting activity was observed.
** Stop control is assumed for analysis in this TIA.

The project area is defined as the vicinity of the site encompassed by the study intersections. The operation of the intersections can be controlled by signing, roundabouts, or signalization. Table 3 refers to the type of

control and number of approach lanes for each leg of each intersection. The existing lane configurations and traffic controls for all intersections are shown in Figure 3.

2.4 Traffic Volumes

2.4.1 Existing Traffic Volumes

Traffic volume data for the site vicinity was gathered for the weekday AM peak period (7:00–9:00 AM) and the weekday PM peak period (2:00–6:00 PM). PBS retained All Traffic Data (ATD) to gather the counts. ATD collected the data on September 13, 2018, which had a typical school schedule for the La Center School District. Copies of the count data used are provided in Appendix A.

Following data collection, system peak hour calculations were performed to identify the hours within the data collection time frames that had highest total entering volumes. Traffic volume data were collected in 15-minute intervals. To calculate the system peak hours, the total traffic volume entering each intersection during a single 15-minute interval were summed into hourly totals. The AM system peak hour was calculated to occur 7:30–8:30 AM with a total of 4,182 cars, the midday system peak hour was calculated to be from 2:30–3:30 PM with a total of 4,046 cars, and the PM system peak hour was calculated to be from 4:45–5:45 PM with a total of 4,280 cars.

The existing counts at the Aspen Avenue/E 4th Street intersection were adjusted to reflect typical conditions. During data collection the intersection was in detour mode to accommodate roundabout construction at the adjacent Pacific Highway/E 4th Street intersection. The 2018 data were adjusted in proportion to 2016 data provided by the City to reflect more realistic splits in the movement volumes.

- Three movements were reduced: eastbound left turns, southbound left turns, and westbound right turns
- Three movements were increased: eastbound through movements, southbound right turns, and westbound through movements

More details are available upon request.

The resulting existing system peak hour volumes for the studied intersections are shown in Figure 4. These volumes were input to the intersection operations analyses addressed later in this TIA.

2.4.2 Background Growth

Background growth is a generic increase in traffic volumes that either is not attributable to specific developments or is attributable to influences outside the study area. As a conservative estimate, a background growth rate of 2.0 percent per year was applied to all 2018 existing peak hour movement volumes between public roadways at the studied intersections. Figure 5 presents the background growth volumes between 2018 and 2020.

2.4.3 In-Process Projects

In-process trips from approved projects were requested from the City of Ridgefield. The in-process projects noted by the City are the following:

- Highland Terrace Subdivision: 94 net new single-family homes (based on a TIA by CTS Engineers dated June 5, 2006)
- Riverside Estates Subdivision: 99 new single-family homes and 306 apartment units (based on a traffic analysis report by Charbonneau Engineering, dated May 2017)

- Stephens Hillside Farm Subdivision: 81 net new single-family homes (based on a transportation impact study by Lancaster Engineering, dated February 1, 2018)
- Sunrise Terrace/Heritage County Estates: 119 net new single-family homes (based on a traffic impact study by Lancaster Engineering, dated July 7, 2015), less 5 occupied homes

All the in-process projects are understood to add some trips at one or more study area intersection. For each project, the City identified the current extent of occupied development so that the in-process trips accounted only the unoccupied portions of the in-process projects' total trip volumes.

The LCMS project will be completed in 2020. It is not known when the in-process project will be complete or when their trips will impact the roadway network. For this analysis, it is assumed they will be fully complete by the 2020 analysis year. This is a conservative assumption since it is unlikely that all the projects will be fully constructed and occupied within the study period. Figure 6 presents the sum of all in-process trips included in this analysis. Note that the midday peak hour volumes presented on Figure 6 are assumed to be the average of the AM peak hour and PM peak hour volumes. Copies of the in-process projects' trip information are provided in Appendix B.

2.4.4 Future Volumes

The baseline volumes for 2020 intersection operations analysis, termed the 2020 Without Project volumes, represent the sum of existing traffic, background growth, and in-process trips. Figure 7 presents the 2020 Without Project volumes for the weekday peak hours.

3 PROPOSED CONDITIONS

The proposed development will add traffic to the roadway system. Where the project is located, the size of the project, and when it will be completed are all important elements that need to be considered to determine the impacts of this development on safety and capacity. It is also important to examine how the project will operate with the existing transportation system, estimate how much new traffic it will generate, and predict where traffic generated by the site will be distributed. Furthermore, this section will address any funded infrastructure changes planned by other agencies or developers. All of these elements are important in assessing the traffic impacts of this project.

3.1 Project Description

This project will consist of relocating the LCMS from the campus (at 700 E 4th Street) it currently shares with the La Center Elementary School to a new site south of NE Lockwood Creek Road in La Center, Washington. The new middle school will include classrooms, physical education fields, basketball courts, outdoor classroom areas, parking lots, and drop-off zones. The proposed gross floor area of the school building will be approximately 81,648 square feet (SF). Overall student capacity will increase with the relocation by approximately 147 students. The anticipated build-out date of the middle school is fall of 2020. Enrollment upon opening is not expected to fill the entire school capacity; the larger building will accommodate additional enrollment growth in future years. Table 4 summarizes the changes in student enrollment with the proposed project.

Table 4. Existing Enrollment and Future Student Capacity Information

School	2017 Existing Student Enrollment	Estimated 2020 Student Capacity	2017–2020 Change
La Center Middle School	403	550	+147

3.2 Access and Circulation

The current site plan proposes two access points (driveways) to the middle school, as shown in Figure 2.

The new middle school campus proposes two accesses into and out of the site. Both driveways will access NE Lockwood Creek Road and are referred to as the Hawk West Driveway (approximately 870 feet west of the NE 23rd Avenue/NE Lockwood Creek Road intersection) and the Hawk East Driveway (approximately 310 feet west of the NE 23rd Avenue/NE Lockwood Creek Road intersection). For this study, the driveways are named using the LCMS mascot, the hawk.

The Hawk West Driveway serves as the main access point to the student drop-off zone and visitor parking lot while permitting all turning movements to and from NE Lockwood Creek Road. The Hawk East Driveway serves as the access point to the bus drop-off zone and staff parking lot. Both driveways are designed to accommodate one entering lane and one exiting lane.

On the LCMS site, traffic in both drop-off zones is intended to flow in a one-way, counter-clockwise manner. An 8-foot-wide lane around the perimeter of the northwest parking area will accommodate parents dropping off and picking up their students at peak times. An on-site sidewalk encircles the student exchange area and connects to the building entrances. Twenty-four-foot-wide drive aisles will accommodate two-way circulation throughout the northwest area and will provide access for the 62 proposed parking spaces.

3.3 Access Spacing

To increase mobility and traffic flow of city streets, the City has set access spacing standards for driveways and street intersections. Table 2 within the City's *Transportation Capital Facilities Plan* (CFP, see References) summarizes the driveway spacing standards. Along arterials such as NE Lockwood Creek Drive, the minimum driveway spacing value is 600 feet, whether measured from a public street or from another driveway. The proposed LCMS site has approximately 735 feet of frontage on NE Lockwood Creek Road, so the site would typically be allowed one driveway to afford reasonable access, and it could be allowed two driveways according to the City standard provided the spacing standard to other driveways and street intersections was maintained.

The LCMS development proposes two driveways primarily for these three reasons: separating the parent and visitor traffic from the school bus and staff traffic, maximizing the utility of the site layout, and protecting as many on-site wetlands as possible. The resulting driveway locations are spaced at approximately 560 feet from each other. Though approximately 40 feet less than the 600-foot standard, this spacing represents a practical maximum given the three reasons noted.

Two existing public street intersections are within 600 feet of the Hawk West Driveway: E 18th Place is approximately 545 feet to the northwest, and E Spruce Avenue is approximately 340 feet to the northwest. In addition, there are seven unpaved, single-lane residential driveways within 600 feet of Hawk West Driveway, including one immediately across NE Lockwood Creek Road. The Hawk West Driveway and the nearby existing accesses are presented on Figure 12.

One existing private street intersection is within 600 feet of Hawk East Driveway: NE 23rd Avenue is approximately 325 feet to the southeast. In addition, there are five unpaved, single-lane residential driveways within 600 feet of Hawk East Driveway. The Hawk East Driveway and the nearby existing accesses are presented on Figure 13.

In general, safety concerns with the substandard driveway spacing are expected to be minimal. The low speeds (20 mph school speed zone) expected during the school peak periods will permit drivers adequate time to perceive other vehicles' movements. Conflicts between the proposed driveways and the existing residential driveways are expected to be minimal based on the low volumes and the inverse trip generation patterns of the residential driveways: most residential trips tend to be exiting during the AM peak hour when school traffic is entering, and most school traffic will have dissipated by the PM peak hour when residential trips tend to be entering.

The proposed LCMS driveways' locations will require an engineering design modification approval through the City.

3.4 Trip Generation and Distribution

The following sections rely on data provided in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* (see References section). Detailed trip generation calculations are provided in Appendix C. Trip estimates are added at the new LCMS campus and subtracted at the existing LCMS campus, as discussed in the following sections.

3.4.1 Proposed Trip Generation

The La Center roadway network will see some increase in volume from the proposed middle school relocation, which will increase the student capacity, the number of employees, and the overall square footage of the campus. For this analysis, the sum of the ITE estimated trips generated by the existing elementary school and

middle school using three different independent variables (number of students enrolled, the number of employees, and 1,000 square feet of gross floor area) were compared to the existing traffic volume data that were gathered for the existing elementary and middle school campus. The existing trip data best fit the ITE estimates based on the schools' respective floor areas. Therefore, this TIA analyzes the intersection impacts of the relocated middle school based on the trip generation rates with floor area as the independent variable. Table 5 presents the net new trips generated by the proposed LCMS.

Table 5. Proposed Trip Generation for New La Center Middle School

Land Use (ITE Code)	Middle School (522)		
Independent Variable	1,000 SF		
Size	81.648		
Average Weekday Trips (ADT)	1,125		
Peak Hour Trips	**AM**	**Midday**	**PM**
In	195	93	50
Out	160	113	47
Total Trips	355	206	97

The new LCMS campus is expected to generate approximately 1,125 trips on a typical school day, including 355 trips during the AM peak hour, 206 trips during the midday peak hour around school dismissal (based on the ITE trip rate during the PM peak hour of the generator), and 97 trips during the PM peak hour.

3.4.2 Proposed Trip Distribution

The proposed distribution of new (primary) trips is based on a review of the land uses within the study area, on the La Center School District boundary, on the distribution of existing traffic patterns, and on engineering judgment. The proposed distribution pattern is as follows:

- 45 percent to and from E 4th Street west of Aspen Avenue
- 10 percent to and from Aspen Avenue north of E 4th Street
- 5 percent to and from E Stonecreek Drive north of E 4th Street
- 15 percent to and from NE Highland Road north of E 4th Street
- 5 percent to and from the neighborhoods along NE Lockwood Creek Road east NE Highland Road and west of the new LCMS campus
- 12 percent to and from NE Lockwood Creek Road east of NE 40th Avenue
- 8 percent to and from NE 40th Avenue south of NE Lockwood Creek Road

The distribution pattern above represents an external distribution of middle school trips entering and exiting the study area. Figure 8 presents the distribution and assignment of the net new trips to the middle school.

3.4.3 Existing Trip Adjustments

Existing distributions represent the trips observed within the study area at the existing middle school site accesses. For this study, the driveways serving the existing campus, which contains both the elementary school and middle school, are named using the La Center Elementary School mascot, the bobcat. With the new LCMS

project, some existing trips will be redistributed to the new campus away from the existing campus shared with the elementary school. The distribution of existing middle school trips to the exterior of the study area is assumed to follow the same pattern noted above for the new LCMS trips. The existing middle school trips are calculated based on ITE rates and the existing gross floor area, as shown in Table 6.

Table 6. Existing Trip Generation for Current La Center Middle School

Land Use (ITE Code)	Middle School (522)		
Independent Variable	1,000 SF		
Size	55.328		
Average Weekday Trips (ADT)	762		
Peak Hour Trips	**AM**	**Midday**	**PM**
In	133	63	34
Out	108	76	32
Total Trips	241	139	66

The existing middle school is estimated to generate approximately 762 trips on a typical school day based on its current floor area, including 241 trips during the AM peak hour, 139 trips during the midday peak hour around school dismissal (based on the ITE trip rate during the PM peak hour of the generator), and 66 trips during the PM peak hour. These existing middle school trips are subtracted from the studied intersections, as shown in Figure 9.

The net impacts of all the proposed new external trips and adjusted internal trips are shown on Figure 10.

3.4.4 Future Volumes with Project

Figure 12 presents the 2020 With Project volumes, or the sum of Without Project volumes and the net site-generated trips, for the weekday peak hours.

3.5 Infrastructure

The following sections identify roadway and intersection improvements planned for the area roadways and studied intersections. These improvements are input to the 2020 (both Without Project and With Commercial Lots conditions) operations analyses discussed later in this TIA.

3.5.1 Frontage Improvements

Frontage improvements are proposed as part of the LCMS development. The extent of the half-street improvements is the south side of NE Lockwood Creek Road along the project frontage. In addition, a pedestrian path will extend across the parcel to the northwest, connecting the proposed middle school to the adjacent residential neighborhoods via the existing sidewalk on the south side of NE Lockwood Creek Road and via the existing crosswalk west of E Spruce Avenue. Where new sidewalk and paths are conditioned with the project, the sidewalk and driveways shall be constructed to meet current standards of the Americans with Disabilities Act (ADA).

3.5.2 Planned Capital Projects

Planned improvement projects within the study area were identified per the La Center Comprehensive Plan (see References). Table 7 identifies the planned improvement projects and their effects on this analysis in the 2020 analysis year.

Table 7. Planned Improvement Projects

Project	Funding Status	Impact to this TIA at Analysis Year (2020)
Install enhanced pedestrian and bicycle signage at the E 4th Street/E Stonecreek Drive intersection	Funded	No impact: the LCMS project results in no change to intersection capacity or to traffic distribution.
Improve NE Lockwood Creek Road from east of NE Highland Road to the east urban growth boundary. This roadway should be reconstructed as a Minor Arterial with pedestrian and bicycle facilities.	Planned: Funding is reliant upon developer contributions and traffic impact fees	LCMS will construct a proportionate share of these improvements along the site frontage.

4 INTERSECTION OPERATIONS AND ROADWAY CAPACITY ANALYSES

4.1 Operations Description

Traffic operations are assessed in terms of level of service (LOS), a concept developed by transportation engineers to qualify the level of operation of intersections and roadways (*Highway Capacity Manual*, see References). LOS measures are classified in grades "A" through "F," indicating a range of operation, with LOS "A" signifying the best level of operation and LOS "F" representing the worst level.

LOS at unsignalized intersections is quantified in terms of average delay per vehicle. LOS "A" reflects full freedom of operation for a driver, while LOS "F" represents operational failure. The criteria are based on the theory of gap acceptance for stop-controlled approaches.

The volume-to-capacity (v/c) ratio quantifies the portion of the theoretical capacity consumed by traffic demand volume. A v/c ratio of zero (0.00) reflects none of the capacity is consumed and all the capacity is fully available. A v/c ratio of one (1.00) reflects all the capacity is consumed and represents operational failure. The v/c ratio can be calculated for an intersection approach lane or for a signalized intersection as a whole, with the latter calculation aggregating the v/c ratios of the critical movements.

4.2 Operation Standards

Per the City's *Capital Facilities Plan* (see References), LOS "D" in the peak hour is the minimum acceptable operation at signalized intersections, whereas LOS "E" is considered acceptable at unsignalized intersections and roundabouts. The City considers a maximum v/c ratio of 0.9 acceptable at mid-block street segments.

4.3 Analysis Methodology

Traffic impacts were estimated to determine the extent of change in traffic conditions caused by the development of this project. In order to make this determination, the following assumptions were employed:

- The proposed campus developments will be completed and fully occupied in 2020.
- As noted previously, the system peak hour conditions were applied and analyzed. The system peak hours were found to occur from 7:30 to 8:30 AM, from 2:30 to 3:30 PM, and from 4:45 to 5:45 PM. Analyses of the 2018 existing conditions volumes are included as a point of reference.
- The peak hour factor (PHF) for the overall intersection, as calculated from the count data, was applied for each analysis scenario. No adjustments were made for future year scenarios.
- The heavy vehicle percentage (HV%) for each movement, as calculated from the count data, was applied for all analysis scenarios. A minimum value of 2.0 percent was assumed for each movement in the 2020 conditions.
- Baseline traffic volumes on the surrounding street system have been determined prior to adding the traffic impacts of the proposed project. This was done to establish a baseline for measuring the project impacts at the time of its development. Baseline traffic volume estimates were prepared for a two-year design horizon (the 2020 Without Project volumes).
- As noted previously, trip generation estimates for the project were prepared for the weekday system peak hours on the surrounding street system.
- Cumulative traffic impacts of the proposed project were determined by superimposing the net project-generated traffic (both added trips and reduced trips) onto the background weekday peak-hour traffic at all studied intersections. These are termed the 2020 With Project conditions.

- The LOS for all intersections was calculated with Trafficware's Synchro software, Version 9, based on HCM 2010 methodologies.

LOS calculation reports for the study area intersections are provided in Appendix D. The key analysis findings are listed in the following tables.

4.4 Level of Service Analyses

4.4.1 2018 Existing Conditions

Table 8. Estimated 2018 Level of Service for Existing Conditions for Study Area Intersections

INTERSECTION *(critical lane group)*	**AM Peak Hour**			**Midday Peak Hour**			**PM Peak Hour**		
	LOS	***Delay***	***v/c***	***LOS***	***Delay***	***v/c***	***LOS***	***Delay***	***v/c***
Aspen Avenue/ W 4th Street *(SB LT)*	C	16.4	0.15	C	18.0	0.14	C	23.8	0.18
E Stonecreek Drive/ E 4th Street *(SB)*	C	17.3	0.15	C	15.1	0.06	C	15.7	0.09
Bobcat West Driveway/ E 4th Street *(NB LT)*	C	19.6	0.31	C	17.7	0.18	C	16.7	0.09
Bobcat East Driveway/ E 4th Street *(NB)*	B	10.4	<0.01	C	16.8	<0.01	B	14.3	0.01
NE Highland Road/ E Ivy Avenue/ E 4th Street *(NB LT)*	**F**	**77.6**	0.45	D	34.0	0.22	D	25.1	0.09
E Ivy Avenue/Bobcat Exit-Only Driveway *(EB)*	A	9.6	0.06	A	8.6	0.02	A	8.9	0.01
NE 40th Avenue/ NE Lockwood Creek Road *(NB)*	B	11.1	0.14	B	10.7	0.11	B	10.4	0.10

Note: Delay is expressed as the average seconds of delay per approaching vehicle.

As shown in Table 8, with one exception, all studied intersections currently operate at an acceptable LOS during the weekday peak hours. The northbound E Ivy Avenue approach to E 4th Street operates at LOS F during the AM peak hour, matching the condition found in the La Center CFP. The intersection peak hour volumes do not appear to meet thresholds for MUTCD traffic signal warrants.

4.4.2 2020 Future Conditions Without Project

Table 9. Estimated 2020 Level of Service Without Project for Study Area Intersections

INTERSECTION *(critical lane group)*	AM Peak Hour			Midday Peak Hour			PM Peak Hour		
	LOS	*Delay*	*v/c*	*LOS*	*Delay*	*v/c*	*LOS*	*Delay*	*v/c*
Aspen Avenue/ W 4th Street *(SB LT)*	C	21.8	0.25	C	24.8	0.24	E	37.7	0.31
E Stonecreek Drive/ E 4th Street *(SB)*	C	21.3	0.19	C	18.5	0.08	C	19.9	0.13
Bobcat West Driveway/ E 4th Street *(NB LT)*	D	26.4	0.40	C	22.8	0.23	C	21.4	0.13
Bobcat East Driveway/ E 4th Street *(NB)*	B	11.1	<0.01	C	20.6	0.01	C	17.0	0.01
NE Highland Road/ E Ivy Avenue/ E 4th Street *(NB LT)*	**F**	**252.4**	0.92	**F**	**64.8**	0.38	E	40.9	0.16
E Ivy Avenue/Bobcat Exit-Only Driveway *(EB)*	A	9.6	0.06	A	8.6	0.02	A	8.9	0.10
NE 40th Avenue/ NE Lockwood Creek Road *(NB)*	B	11.7	0.17	B	11.2	0.14	B	11.0	0.13

Note: Delay is expressed as the average seconds of delay per approaching vehicle.

As shown in Table 9, with one exception, all studied intersections will operate at an acceptable LOS in the 2020 year of opening Without Project conditions during the weekday peak hours. The northbound E Ivy Avenue approach to E 4th Street operates at LOS F during the AM peak hour, matching the condition found in the La Center CFP. The intersection peak hour volumes do not appear to meet thresholds for MUTCD traffic signal warrants.

4.4.3 2020 Future Conditions With Project

Table 10. Estimated 2020 Level of Service With Project for Study Area Intersections

INTERSECTION *(critical lane group)*	**AM Peak Hour**			**Midday Peak Hour**			**PM Peak Hour**		
	LOS	***Delay***	***v/c***	***LOS***	***Delay***	***v/c***	***LOS***	***Delay***	***v/c***
Aspen Avenue/ W 4th Street *(SB LT)*	D	25.0	0.31	D	26.6	0.27	E	39.6	0.34
E Stonecreek Drive/ E 4th Street *(SB)*	C	23.9	0.23	C	19.7	0.10	C	20.5	0.14
Bobcat West Driveway/ E 4th Street *(NB LT)*	D	25.6	0.23	C	22.3	0.10	C	21.0	0.07
Bobcat East Driveway/ E 4th Street *(WB LT)*	A	9.3	0.1	A	8.8	0.01	A	9.1	0.04
NE Highland Road/ E Ivy Avenue/ E 4th Street *(NB LT)*	**F**	**194.0**	0.48	**F**	**63.8**	0.23	E	41.0	0.11
E Ivy Avenue/Bobcat Exit-Only Driveway *(EB)*	A	9.4	0.02	A	8.6	0.01	A	8.8	0.07
Hawk West Driveway/ NE Lockwood Creek Road *(NB)*	C	18.3	0.40	C	15.1	0.26	B	11.9	0.08
Hawk East Driveway/ NE Lockwood Creek Road *(NB)*	B	13.3	0.07	B	13.5	0.05	B	11.3	0.01
NE 40th Avenue/ NE Lockwood Creek Road *(NB)*	B	12.0	0.18	B	11.4	0.15	B	11.0	0.13

Note: Delay is expressed as the average seconds of delay per approaching vehicle.

As shown in Table 10, with one exception, all studied intersections will operate at an acceptable LOS in the 2020 year of opening With Project conditions during the weekday peak hours. The northbound E Ivy Avenue approach to E 4th Street operates at LOS F during the AM peak hour, matching the condition found in the La Center CFP. The intersection peak hour volumes do not appear to meet thresholds for MUTCD traffic signal warrants. However, the delay and v/c values will be lower than without the project as LCMS trips shift away from the existing campus; the LCMS project will cause traffic conditions to improve from the background conditions. Therefore, as found in the CFP, no mitigation is merited, required, or recommended.

5 SAFETY ANALYSIS

5.1 Left-Turn Storage Analysis

The criteria for the analysis of left-turn lanes at uncontrolled intersection approaches are based on the *Washington State Department of Transportation (WSDOT) Design Manual*, Exhibit 1310-7a, Left-Turn Storage Guidelines: Two-Lane, Unsignalized. The exhibit provides guideline curves for posted speeds of 40, 50, and 60 miles per hour (mph). Plots of the 2020 With Project volumes are provided on Exhibit 1310-7a in Appendix E.

By interpolation for the 25 mph posted speed on NE Lockwood Creek Road, volumes at the Hawk West Driveway/NE Lockwood Creek Road and Hawk East Driveway/NE Lockwood Creek Road intersections do not rise to a level at which further left-turn storage analysis is recommended. Neither the intersection operations analyses earlier in this TIA nor the collision analysis later in this TIA identified concerns with the intersections. Therefore, left-turn lanes at the proposed access driveways are neither merited nor recommended.

5.2 Right-Turn Treatment Analysis

The criteria for the analysis of right-turn lanes at uncontrolled intersection legs are based on the *WSDOT Design Manual*, Right-Turn Lane Guidelines (Exhibit 1310-11), which note:

> *Right-turn movements influence intersection capacity even though there is not conflict between right-turning vehicles and opposing traffic. Right-turn lanes might be needed to maintain efficient intersection operation. Use the following to determine when to <u>consider</u> right-turn lanes at unsignalized intersections:*
>
> - *For two-lane roadways and for multilane roadways with a posted speed of 45 mph or above, when recommended by Exhibit 1310-11.*

Plots of the 2020 With Project volumes are provided on Exhibit 1310-11 in Appendix E.

Volumes at the Hawk West Driveway/NE Lockwood Creek Road intersection would appear to rise to levels at which right-turn lanes should be considered. However, the speeds of all uncontrolled roadways at study area intersections are 25 mph and below. In addition, the school speed zone limit during peak LCMS traffic periods will be 20 mph. With relatively slow mainline speeds, the safety concerns with right-turning vehicles decelerating are negligible. With all study roadway speed limits set below the 45 mph threshold noted in the *WSDOT Design Manual* Right-Turn Lane Guidelines, no right-turn lane analyses are recommended for this project.

5.3 Collision Analysis

Collision data from the study area was obtained from WSDOT for the five-year period spanning from January 2013 through December 2017. This analysis assumes that a collision rate less than the critical collision rate for the intersection is typically considered to be within acceptable parameters. A collision rate above the critical rate is worthy of further examination. The detailed collision data can be found in Appendix F. The results of the collision analysis are shown in Table 11.

Table 11. Collision Analysis for Study Area Intersections (January 2013 through December 2017)

COLLISION TYPE	Aspen Ave/ E 4th St	E Stonecreek Dr/ E 4th St	NE Highland Rd/ E Ivy Ave/ E 4th St	NE 40th Ave/ NE Lockwood Creek Rd
Angle	0	0	2	0
Rear-End	0	0	1	0
Sideswipe	0	0	0	0
Fixed Object	0	0	1	0
Vehicle Overturned	0	0	0	0
TOTAL COLLISIONS	**0**	**0**	**4**	**0**
CRITICAL RATE	**0**	**0**	**0.90**	**0**
COLLISION RATE	**0**	**0**	**0.28**	**0**

To calculate the collision rate, the PM peak hour total entering volumes from the 2018 turning movement counts were multiplied by 10 to provide an approximation of the ADT. The calculations of the critical rates and the collision rates are provided in Appendix F.

The collision history at the study area intersections shows no collision rate higher than the critical rate, and there were no severe or fatal injury types. No further review is recommended.

5.4 Transit, Pedestrian, and Bicycle Facilities

At the project frontage, the primary access roadway to the new middle school campus, NE Lockwood Creek Drive, is a two-lane roadway with no shoulders or bicycle lanes. For pedestrians, there is an existing marked crosswalk of NE Lockwood Creek Road approximately 285 feet northwest of the LCMS site that connects between the eastern end of the south sidewalk and the recent Sunrise Heights/Heritage County Estates subdivision on the north side. The south sidewalk crosses E 18th Place at a marked crosswalk and extends more than 3,500 feet west to a marked crosswalk at the E Stonecreek Drive intersection. A north sidewalk extends west from there. Marked crosswalks provide north-south connections at the NE Highland Road/E Ivy Avenue/E 4th Street intersection (approximately 2,500 feet northwest of the LCMS site) and at the La Center High School campus (approximately 1,875 feet northwest of the LCMS site). School crossing assemblies (MUTCD sign S1-1 with W16-7P; see References) are located at these crosswalks, alerting road users of the nearby school properties and pedestrian crossings. Collectively, the pedestrian network connects the city center, the school campuses, Holley Park, the La Center Community Library, the post office, and the adjoining neighborhoods.

The frontage improvements associated with the LCMS project will provide a sidewalk along the southern side of NE Lockwood Creek Road plus a path connection on the south side of NE Lockwood Creek Road along the adjacent parcel's frontage, connecting to the existing sidewalk at E Spruce Avenue. This will allow for pedestrian activity between the middle school and the rest of the City pedestrian network.

The LCMS frontage improvements also will provide an eastbound bike lane, which will be buffered with pavement striping from the eastbound vehicle travel lane. The striped buffer will be removed when properties to the north redevelop and provide half-street improvements on the north side of NE Lockwood Creek Road. At that time, the ultimate roadway cross-section will match the Minor Arterial "A" (City of La Center standard

plan ST-12A, dated August 23, 2016), with 6-foot bike lanes and 12-foot vehicle travel lanes in each direction separated by a 12-foot center turn lane. See the frontage engineering plans for more details.

School bus service is currently provided at the existing La Center Elementary and Middle Schools. Service will split between the existing elementary school and the new LCMS campus and will be expanded as needed to accommodate the district's growing enrollment. On the middle school site, school buses will be provided their own circulation loop, shared with staff parking but separated from visitor parking. A total of 12 bus parking spaces will be provided, plus there will be space for three additional buses to load and unload along the curb. Buses will enter and exit via the Hawk East Driveway on NE Lockwood Creek Road. See Figure 2, site plan, for more details.

The single public transit service stop within La Center is located along NE Lockwood Creek Road, between La Center High School and Holley Park. The transit stop is within walking distance of the project, as it is approximately 2,500 feet away from the proposed middle school campus. The transit stop is a part of the C-TRAN Connector transportation route that services residents within Camas, La Center, and Ridgefield. The C-TRAN Connector provides transportation assistance in the form of fully accessible dial-a-ride (reservation-based service) services and scheduled stop services at designated stops within the service areas. Buses run Monday through Friday, from 5:30–9:15 AM and 2:00–7:00 PM. This existing public transit service will not be extended with the project.

All driveways, sidewalks, and curb ramps constructed for the LCMS project should meet ADA requirements.

5.5 Roadway Speed Limits

To provide for the safety of students and vehicle drivers alike, it is recommended to establish a school speed zone along NE Lockwood Creek Road for the relocated middle school. The school speed zone should be defined by School Speed Limit 20 When Flashing sign assemblies (MUTCD sign S5-1 with beacons) and advance warning signs (MUTCD S1-1 signs with W16-9P) in each direction. These signs would regulate the speed limit during the typical AM and midday peak periods when students will be arriving and departing the campus.

As noted in Table 2, the posted speed limit along NE Lockwood Creek Road currently is 35 mph between E Spruce Avenue on the west and NE 24th Avenue on the east. West of this segment, the posted speed is 25 mph, and this remains the posted speed for the entire E 4th Street-NE Lockwood Creek Road corridor throughout the City. East of this segment, the roadway is under Clark County jurisdiction, and the design speed is 50 mph per Table 40.350.030-3 in the Clark County Code (CCC). No numeric speed limit is signed, so the "basic rule" speed limit of 50 mph applies per CCC 40.350.030(8).

As the LCMS site develops and NE Lockwood Creek Road becomes increasingly urban in character, it is recommended the City consider applying a 25 mph speed limit across the middle school frontage to make this segment consistent with the rest of the corridor.

5.6 Sight Distance at Site Access Locations

The site accesses do not currently exist, so sight distance measurements are not presently possible. All proposed site entrances along NE Lockwood Creek Road should all be designed in accordance with Chapter 9.5.3 of the AASHTO policy (see References), based on the NE Lockwood Creek Road posted speed of 25 mph.

6 STUDY FINDINGS

The findings of this TIA are listed below.

6.1 Future Traffic Volumes Increase

Traffic volumes in the study area vicinity will continue to increase with or without the project. A background 2.0 percent annual growth rate is applied throughout the study area, and the traffic impacts of four in-process projects are added to the study area to evaluate the background conditions.

6.2 Access Spacing

The City's standard for access spacing along minor arterials is 600 feet. The two LCMS site driveways are proposed in locations spaced approximately 560 feet from each other, and several existing residential driveways and road intersections are within 600 feet of each proposed driveway. The spacing distances will fall below the standard, yet few vehicle conflicts are expected due to the low volumes at the residential driveways and low speeds on NE Lockwood Creek Road. The proposed 560-foot spacing represents a practical maximum when considering the competing priorities to (1) separate the parent and visitor traffic from the school bus and staff traffic, (2) maximize the utility of the site layout, and (3) protect as many on-site wetlands as possible.

6.3 Trip Generation

The relocated LCMS is estimated to generate approximately 1,125 weekday trips, including 355 trips during the AM peak hour, 206 trips during the midday peak hour around school dismissal, and 97 trips during the PM peak hour. These will be offset by the reduction in traffic at the existing LCMS, which is estimated to generate approximately 762 weekday trips, including 241 trips during the AM peak hour, 139 trips during the midday peak hour around school dismissal, and 66 trips during the PM peak hour.

6.4 Turn Lanes

The forecast volumes at the LCMS site driveways were evaluated using the WSDOT guidelines for installation of left- and right-turn lanes for vehicles entering the site. Based on the low left-turn volumes and the low roadway speeds, neither evaluation found a turn lane was required or recommended.

6.5 Collision Analysis

The 2013–2017 collision history at the study intersections was reviewed; all intersections have collision rates lower than the critical rate, and no patterns of collision types or of severe collisions were identified.

6.6 Transit, Pedestrian, and Bicycle Facilities

School bus service is provided at the existing La Center Elementary/Middle School and will be expanded as needed to accommodate increased enrollment with the relocated LCMS. School buses will serve the new LCMS campus within their own circulation loop that will be shared with staff parking but separated from visitor/student parking.

The existing public transit service stop within La Center is within walking distance of the project, as it is approximately 2,500 feet away from the proposed middle school campus. The transit stop is a part of the C-TRAN Connector route that provides peak hour service for residents within Camas, La Center, and Ridgefield. The C-TRAN Connector provides transportation assistance in the form of fully accessible dial-a-ride (reservation-based service) services and scheduled stop services at designated stops within the service areas. This existing public transit service will not be extended with the project.

At the project's completion, public sidewalks will run along the south side of NE Lockwood Creek Road between the Hawk West Driveway and the Hawk East Driveway, and a new pedestrian path will connect

between the LCMS site frontage sidewalk and the existing sidewalk near E Spruce Avenue. The path will connect LCMS with the rest of the City's pedestrian infrastructure network. The project also will provide an eastbound bike lane on NE Lockwood Creek Road.

6.7 Intersection Performance

Nine intersections (including five driveway intersections) were evaluated for operational performance based on LOS and v/c ratio, which measure traffic operations. With one exception, all locations operate within the applicable LOS standard during all analysis scenarios, both without and with the project trips. The northbound approach at the NE Highland Road/E Ivy Avenue/E 4th Street intersection operates at LOS "F," exceeding the applicable LOS E standard during the AM peak hour, both without and with project trips. The intersection peak hour volumes do not appear to meet thresholds for MUTCD traffic signal warrants. However, this matches the condition observed in the CFP, and the LCMS project is anticipated to improve the approach performance, i.e., reduce the approach delay. Therefore, no LOS mitigation is merited, required, or recommended.

7 RECOMMENDATIONS

The traffic impact analysis supports the following recommendations.

7.1 Engineering Design Modification

Request an engineering design modification from the City for the substandard access spacing conditions proposed.

7.2 Accessibility

Assure all driveways, sidewalks, and curb ramps constructed with the project are ADA-compliant.

7.3 School Speed Zone

Establish a 20 mph school speed zone along NE Lockwood Creek Road defined by School Speed Zone sign assemblies (MUTCD sign S5-1 with beacons) and advance warning signs (MUTCD S1-1 signs with W16-9P) in each direction. The beacons should flash during the typical AM and midday peak periods when students will be arriving and departing the campus.

7.4 Roadway Speed Limit

The City of La Center should consider applying a 25 mph speed limit across the LCMS frontage to make this segment consistent with the rest of the E 4th Street-NE Lockwood Creek Road corridor.

7.5 Driveway Sight Lines

Design the proposed driveway access points consistent with Chapter 9.5.3 of the AASHTO *Geometric Design* guide for intersection sight distance. Install no objects within the sight distance triangles that would block exiting drivers' view at the access points.

8 REFERENCES

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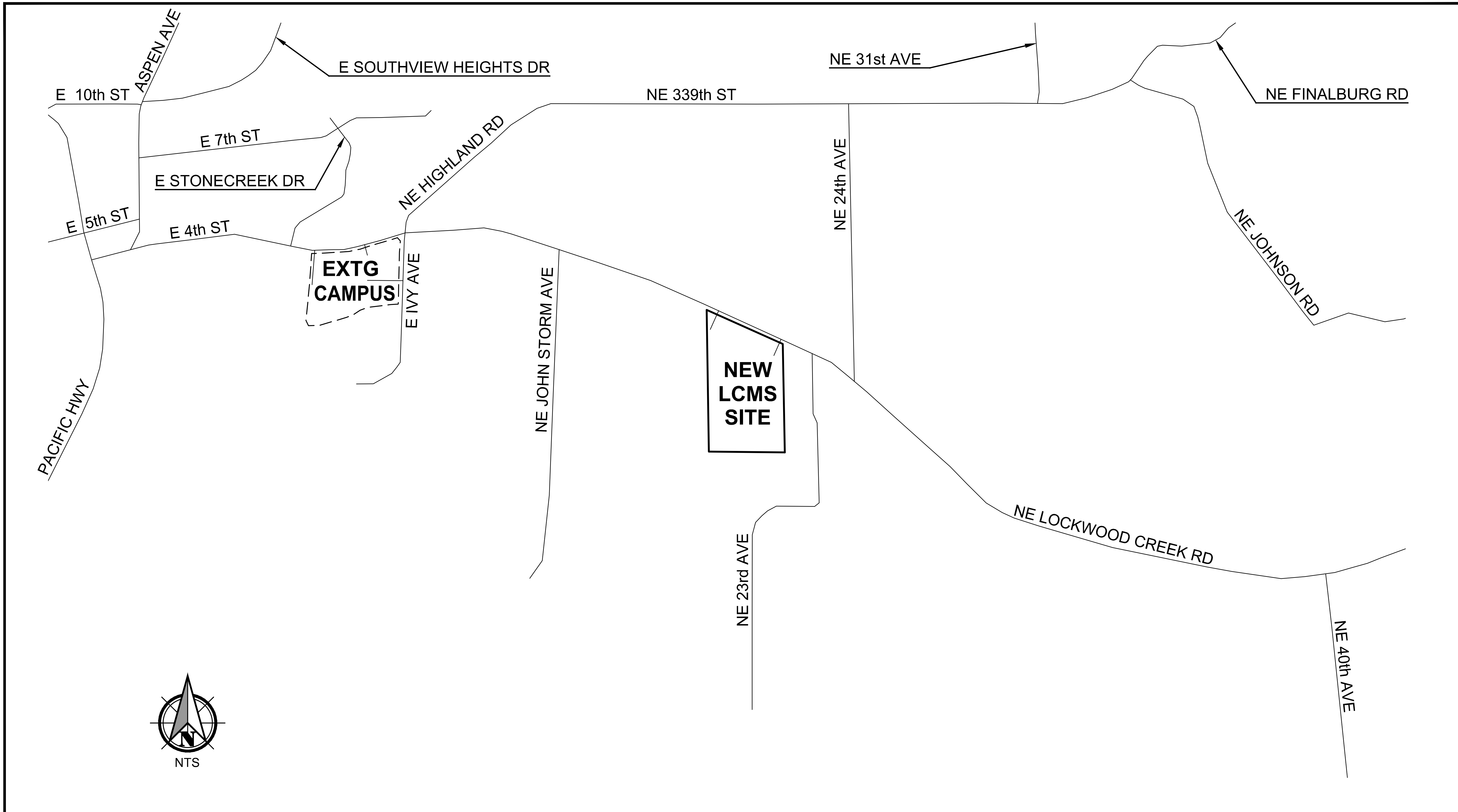
Figures



PBS

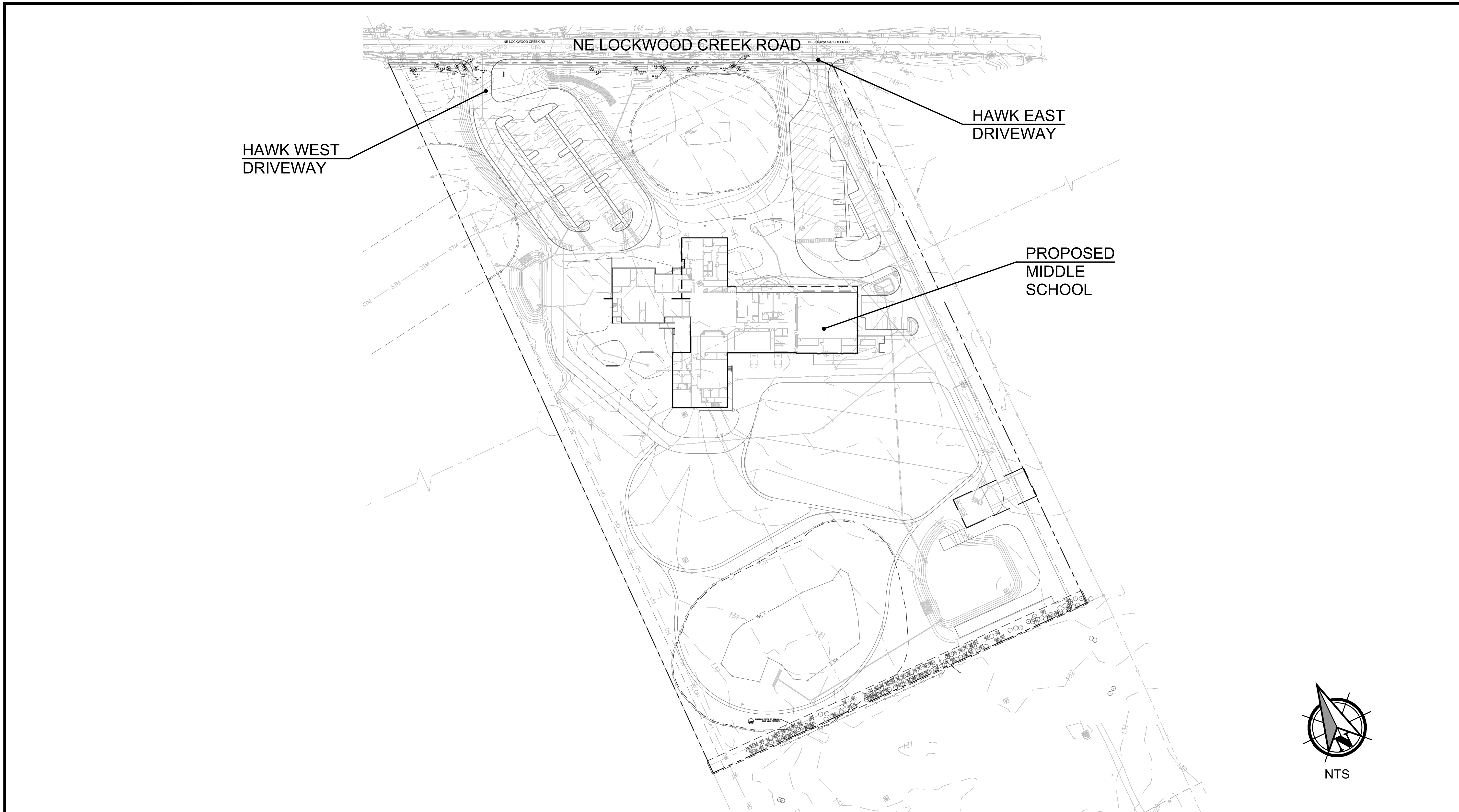
Vicinity Map

La Center Middle School

NOV 2018

FIGURE

1



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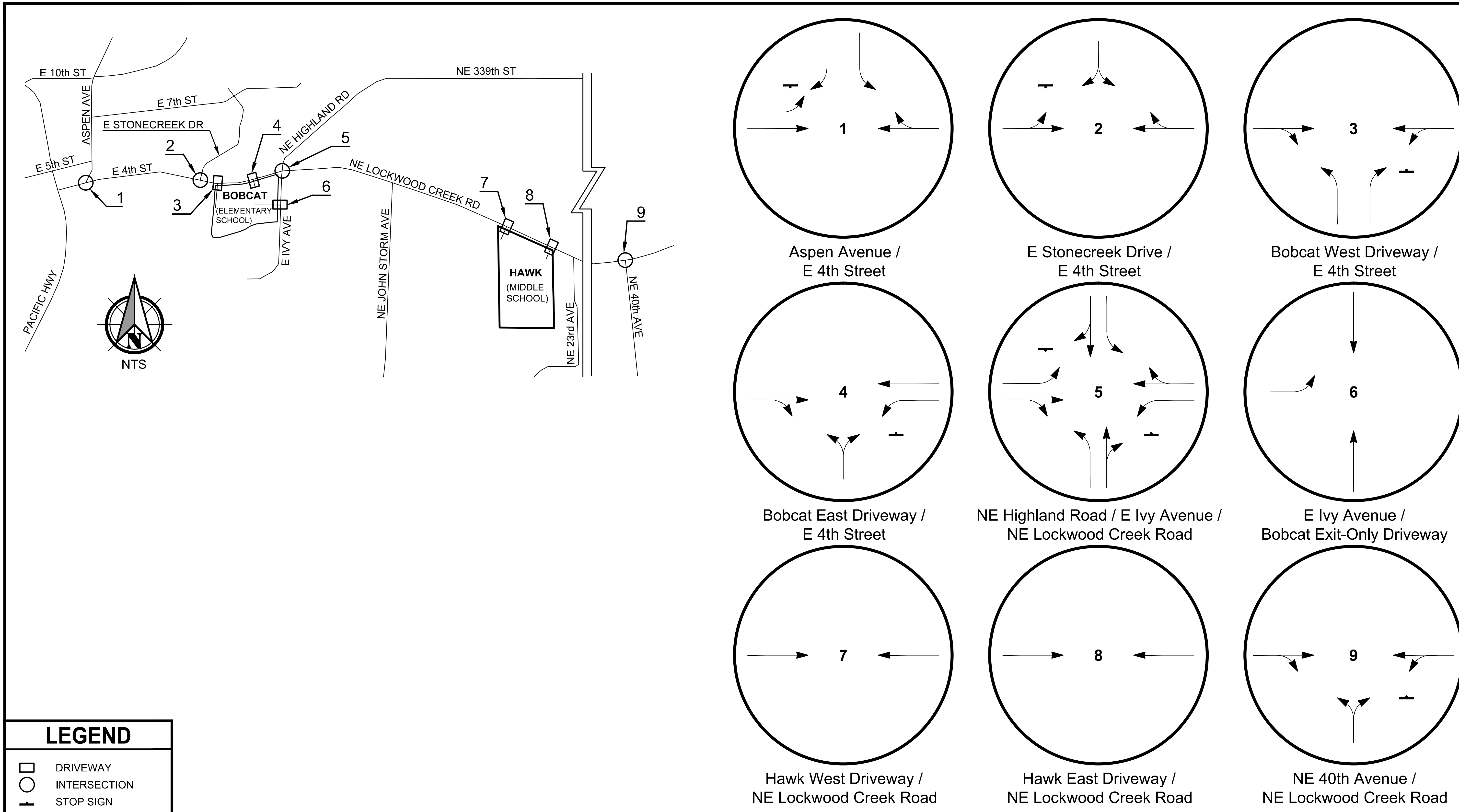
Site Plan

La Center Middle School

NOV 2018

FIGURE
2



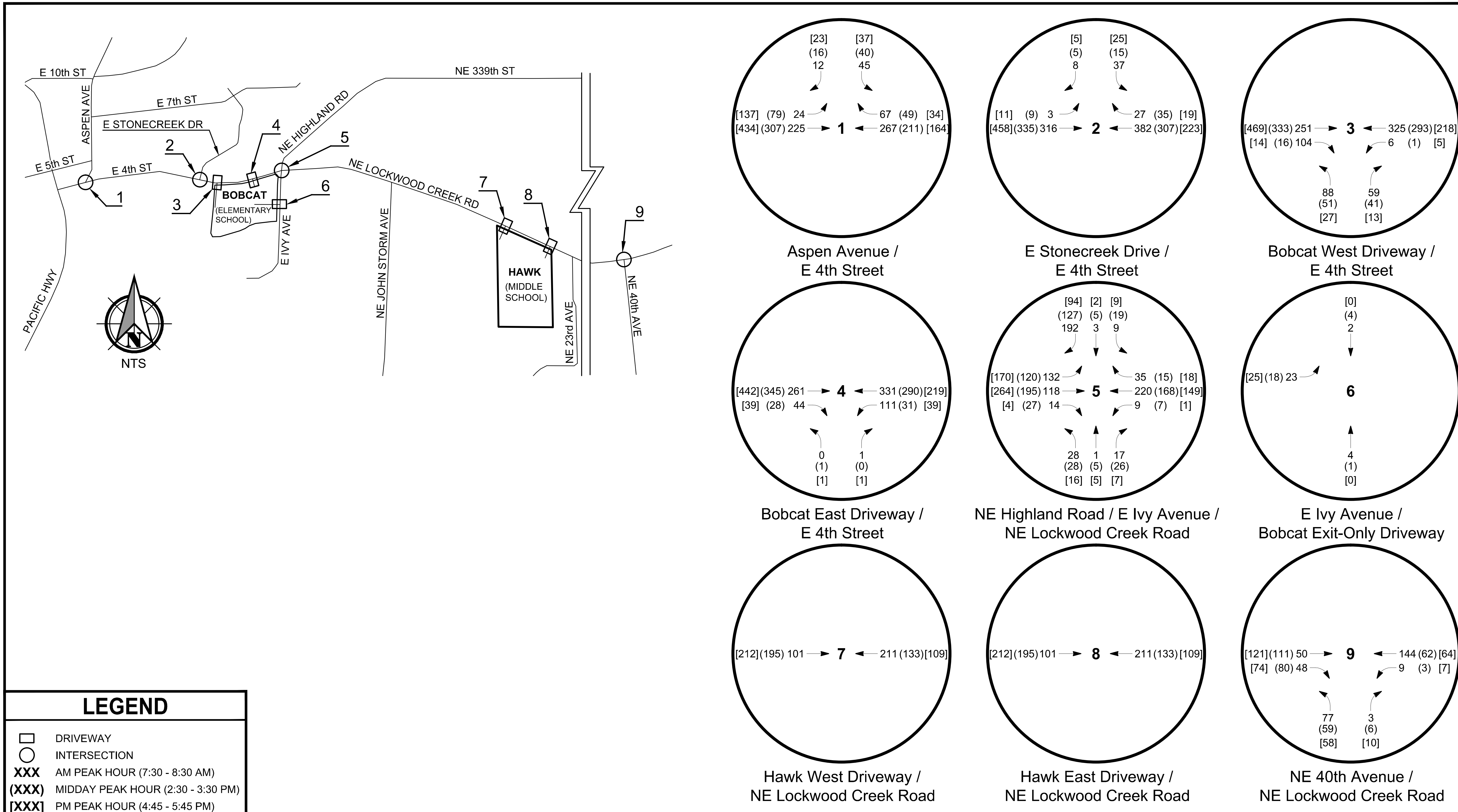
PBS

Existing Lane Configurations and Traffic Controls

La Center Middle School

NOV 2018

FIGURE **3**



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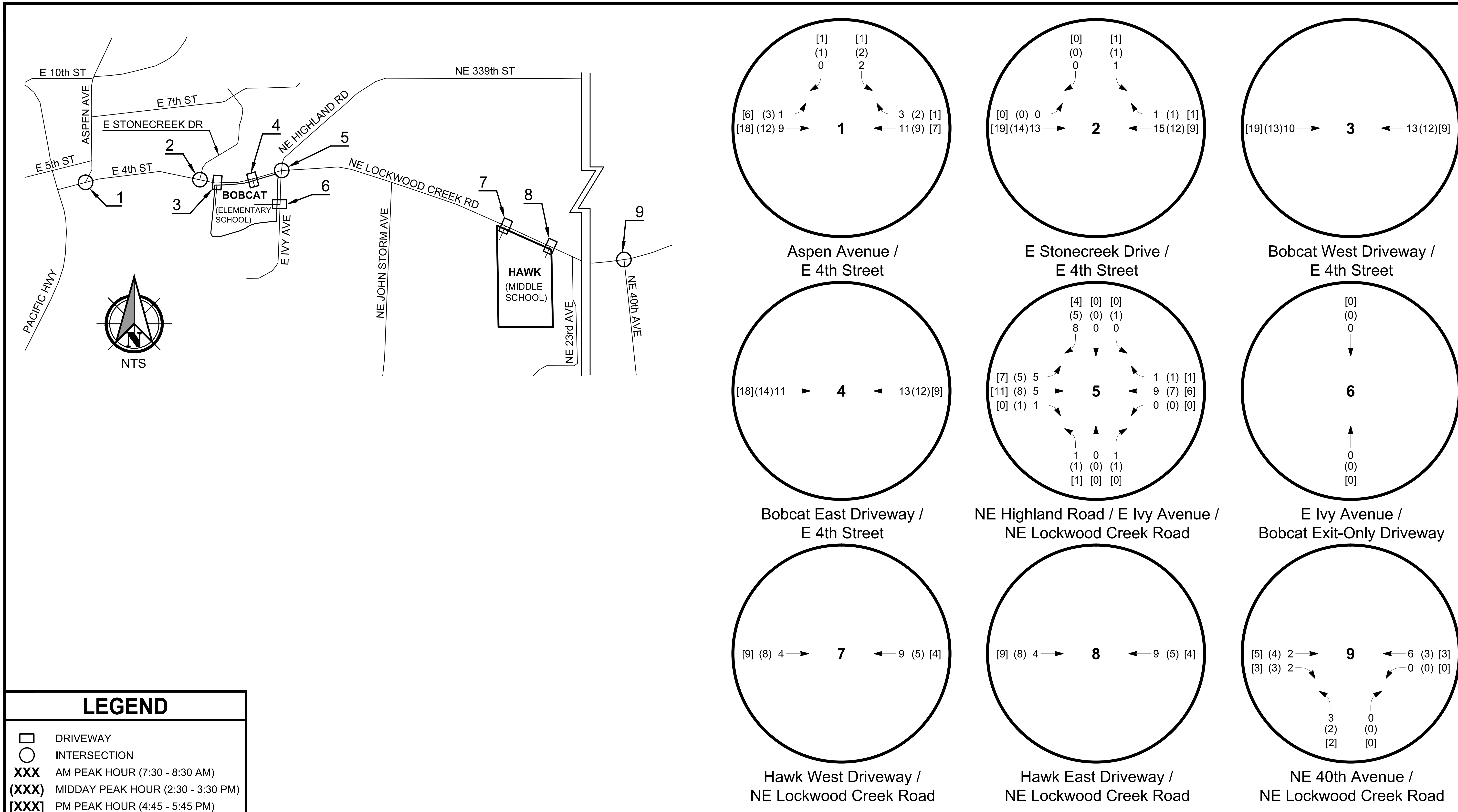
2018 Existing Volumes

La Center Middle School

NOV 2018

FIGURE **4**



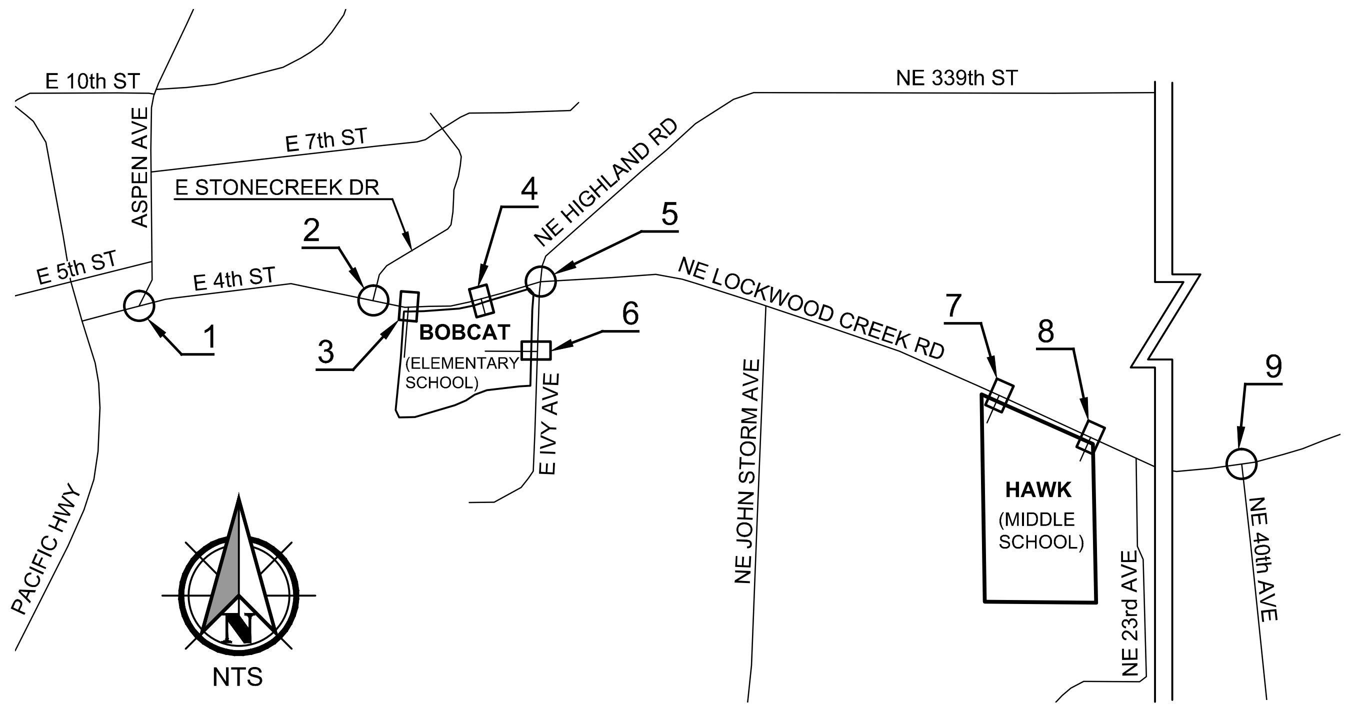
PBS

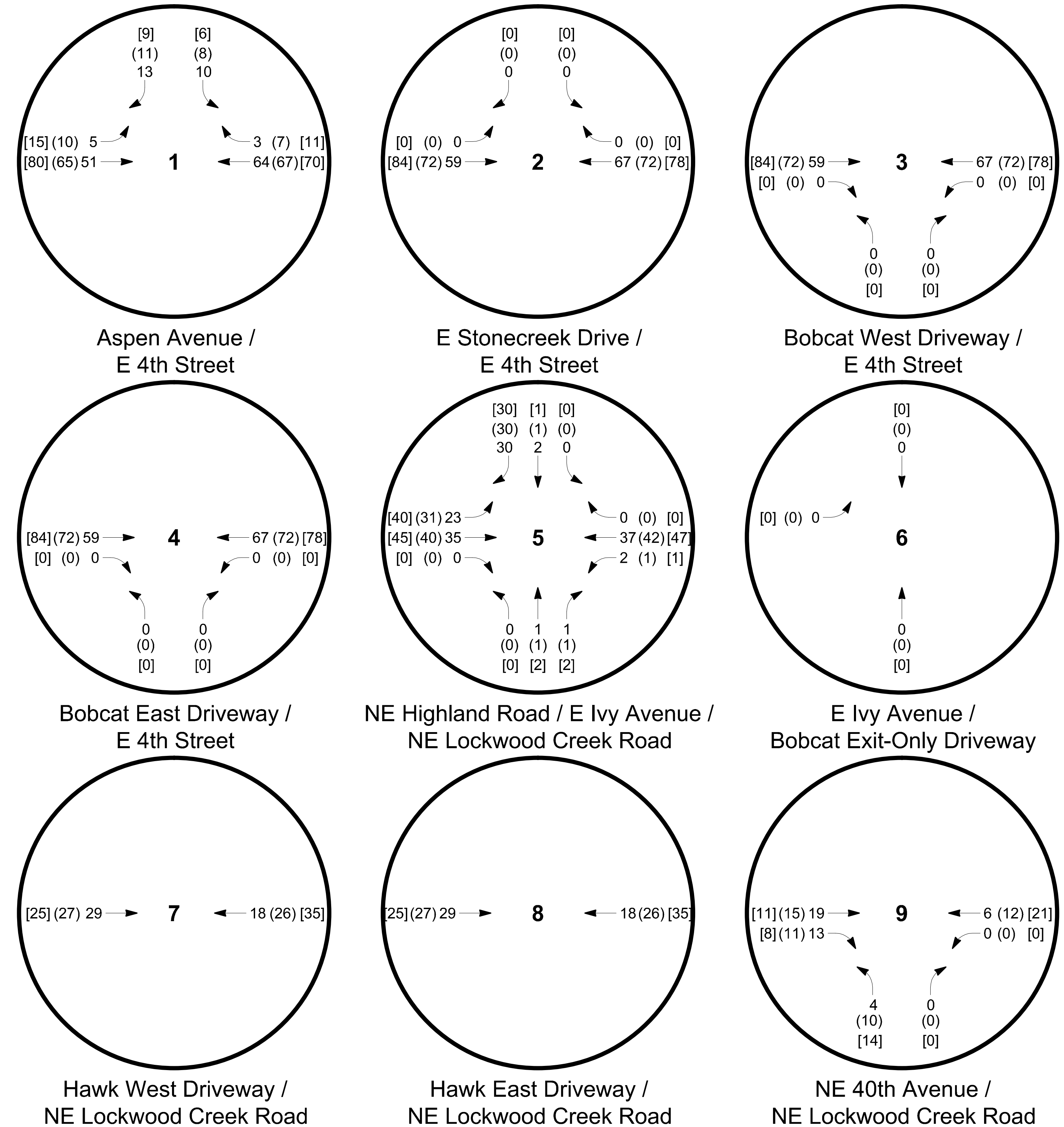
2018-2020 Background Growth (2 Years @ 2%)

La Center Middle School

NOV 2018

FIGURE **5**





LEGEND

▭	DRIVEWAY
○	INTERSECTION
XXX	AM PEAK HOUR (7:30 - 8:30 AM)
(XXX)	MIDDAY PEAK HOUR (2:30 - 3:30 PM) * * IN PROCESS TRIPS DURING THE MIDDAY PEAK HOUR ARE ASSUMED TO BE THE AVERAGE OF THE AM AND PM VALUES
[XXX]	PM PEAK HOUR (4:45 - 5:45 PM)

PBS

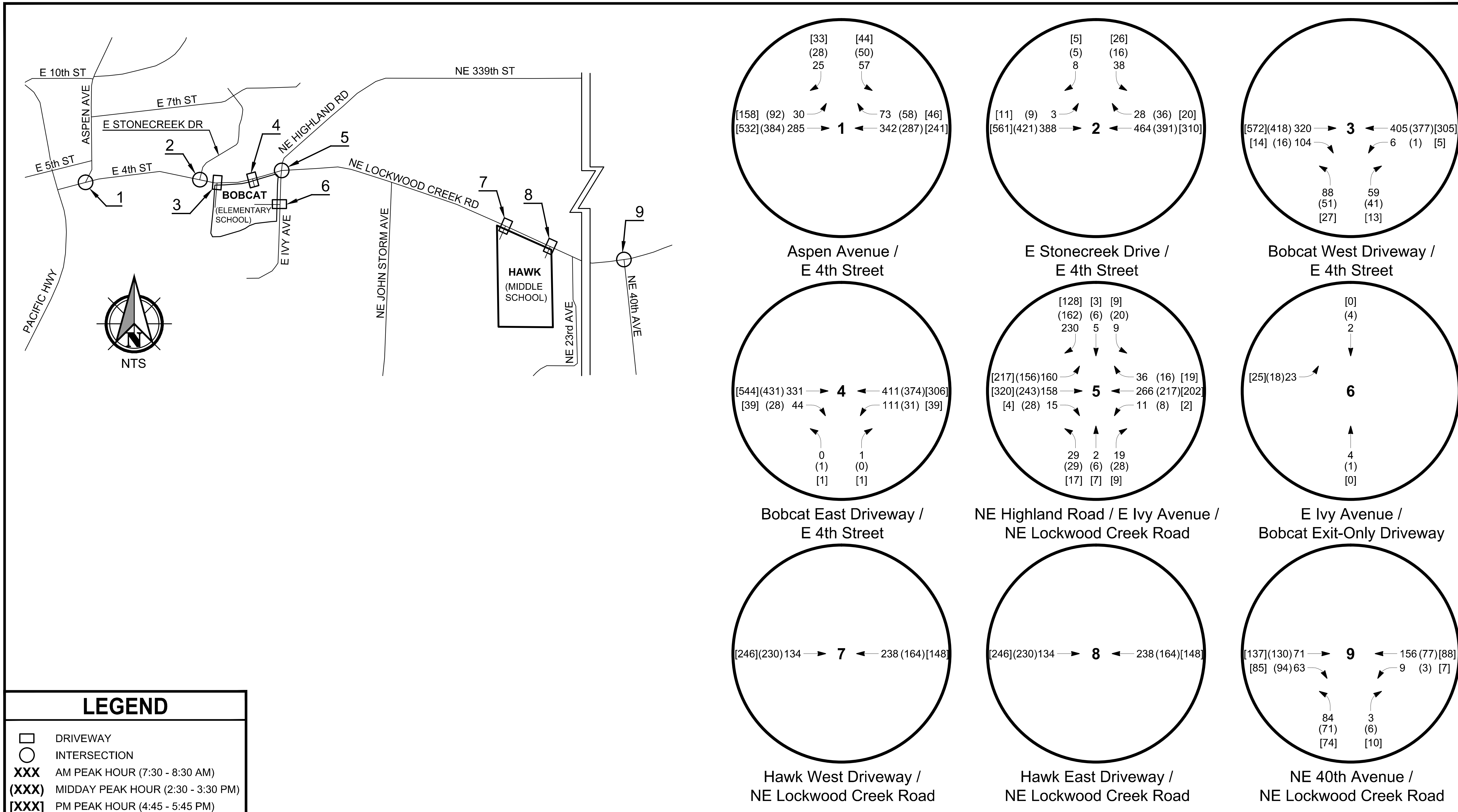
In-Process Trips

La Center Middle School

NOV 2018

FIGURE

6



PBS

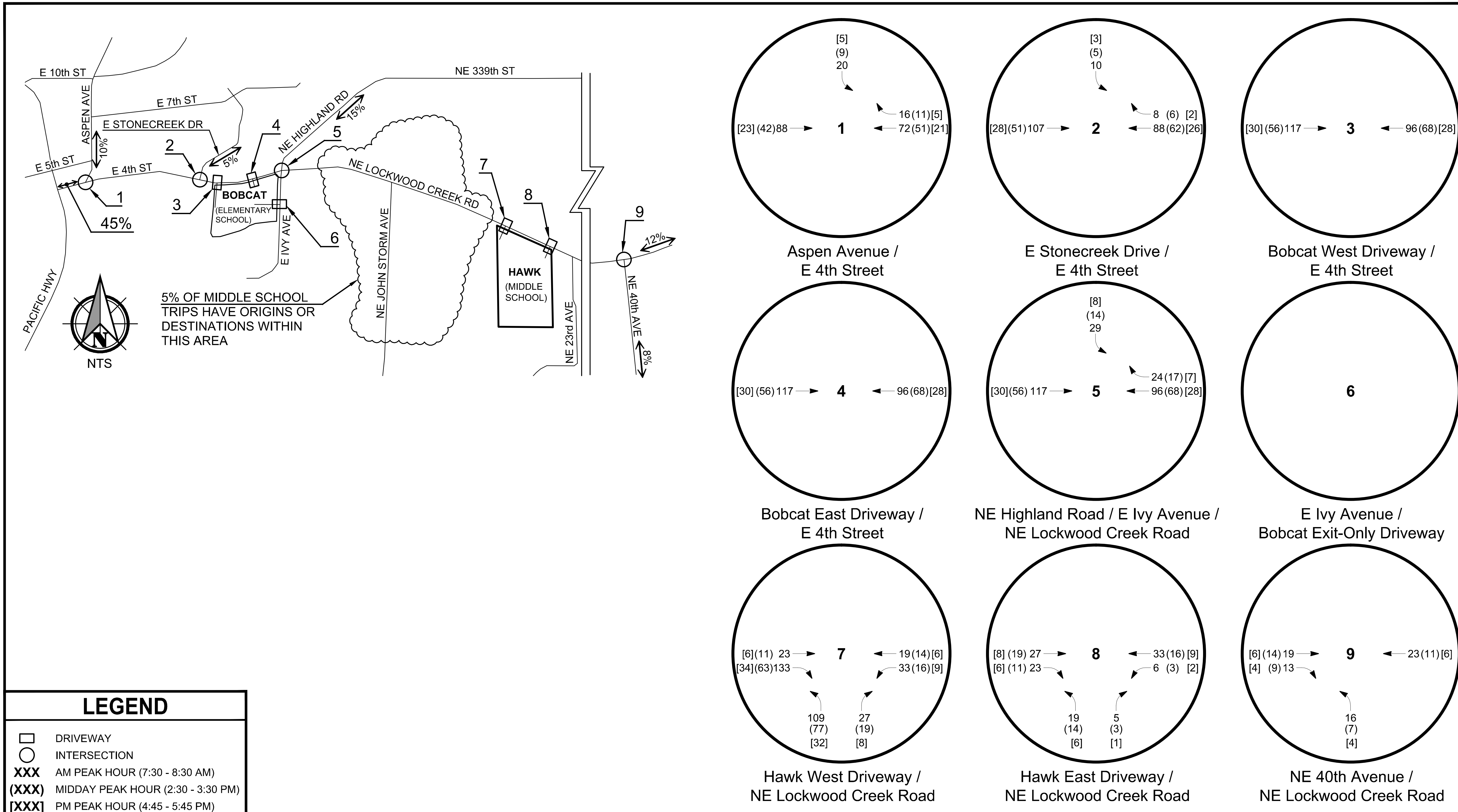
2020 Without Project Volumes

La Center Middle School

NOV 2018

FIGURE

7



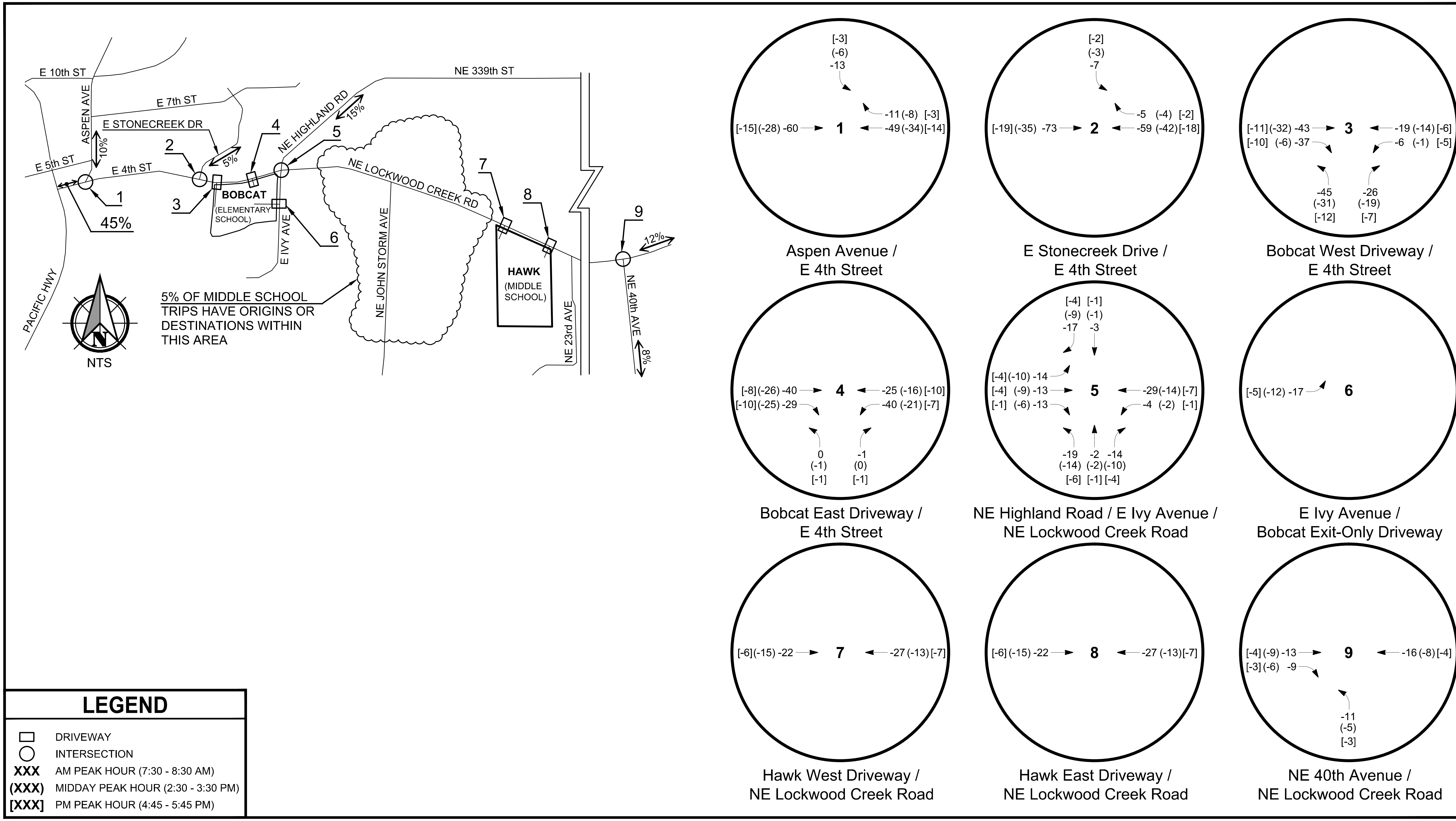
PBS

New Middle School Trip Distribution and Trip Assignments

La Center Middle School

NOV 2018

FIGURE 8



PBS

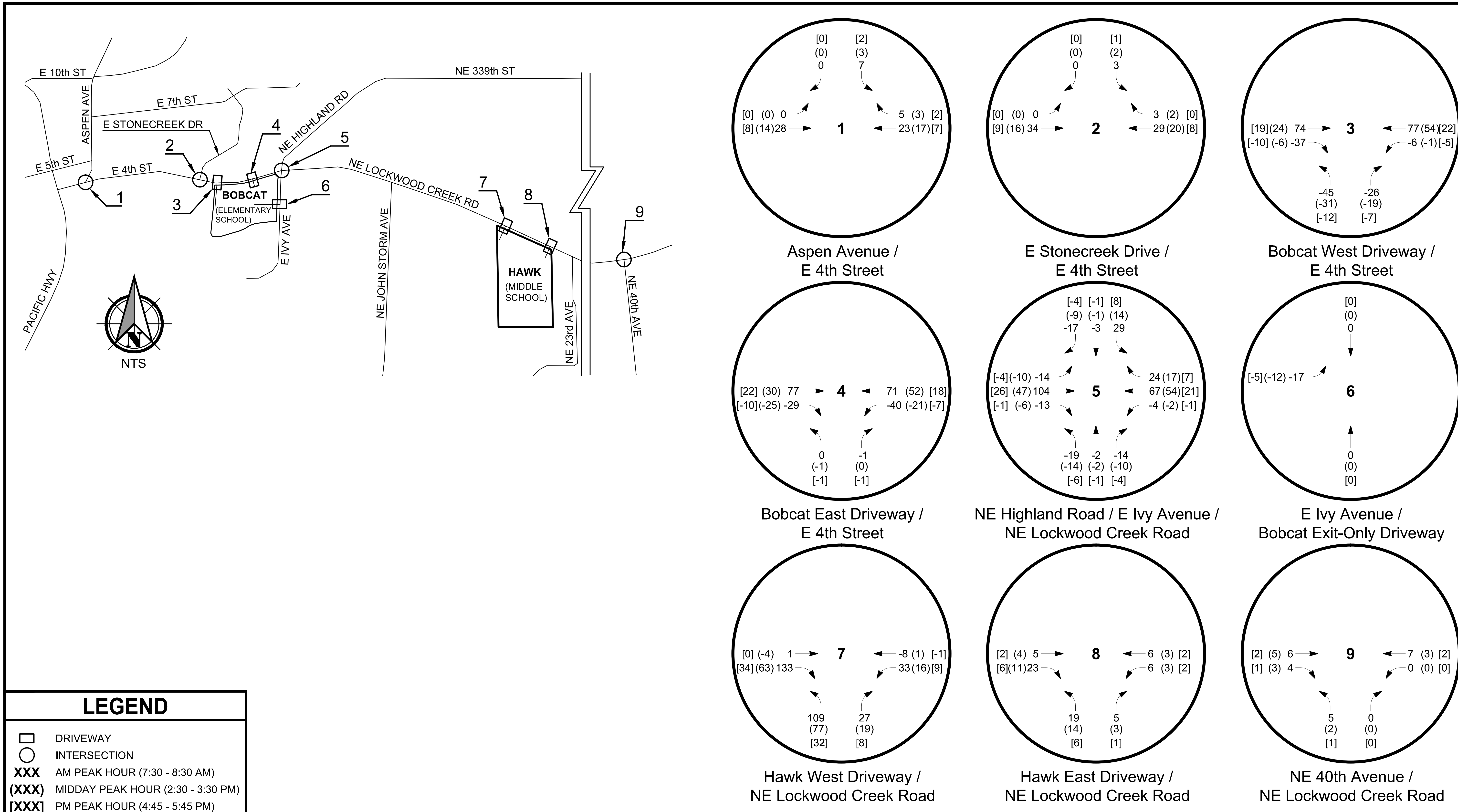
Existing Middle School Trip Distribution and Adjustments

La Center Middle School

NOV 2018

FIGURE

9



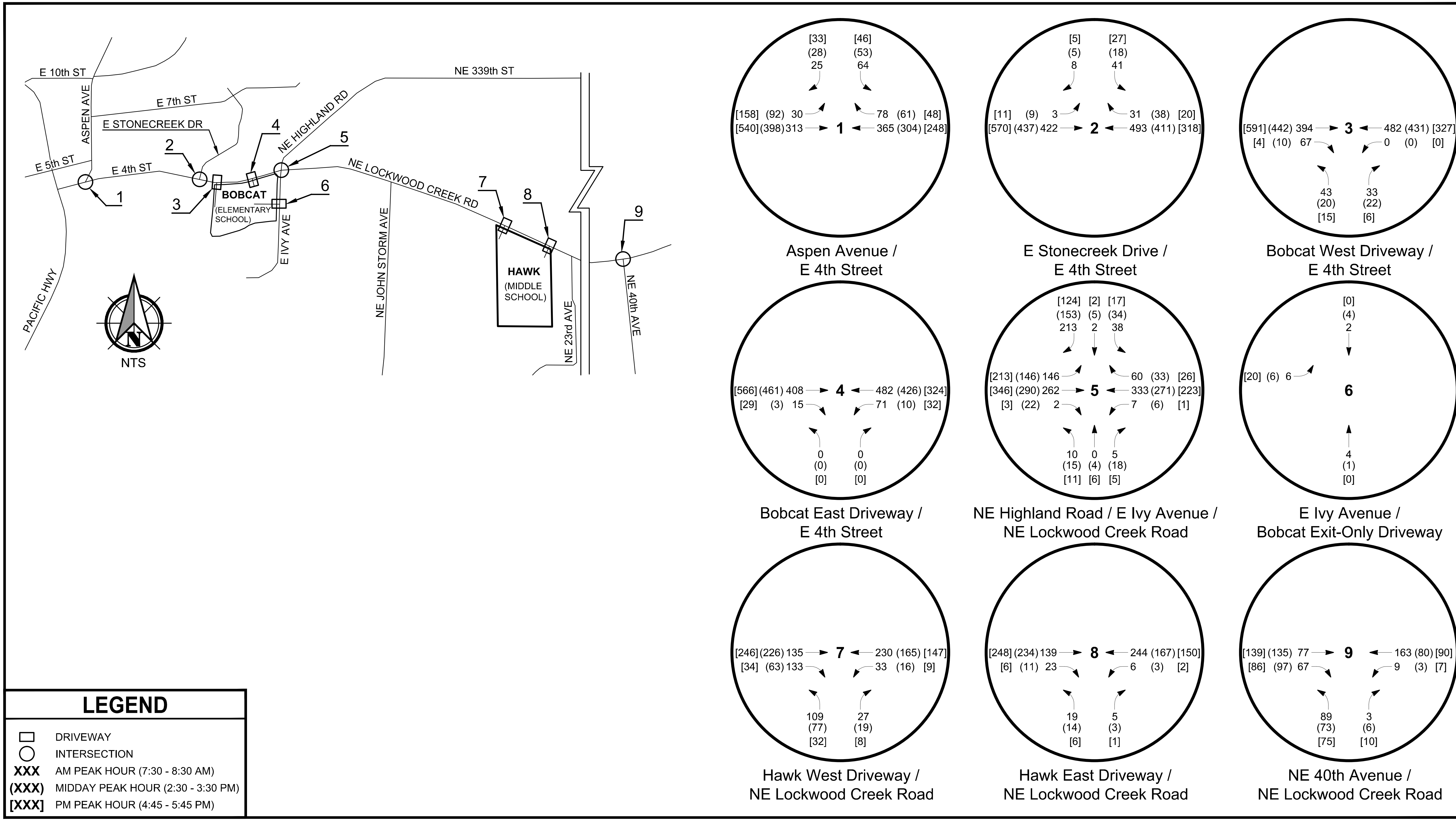
PBS

Net Trip Impacts

La Center Middle School

NOV 2018

FIGURE **10**



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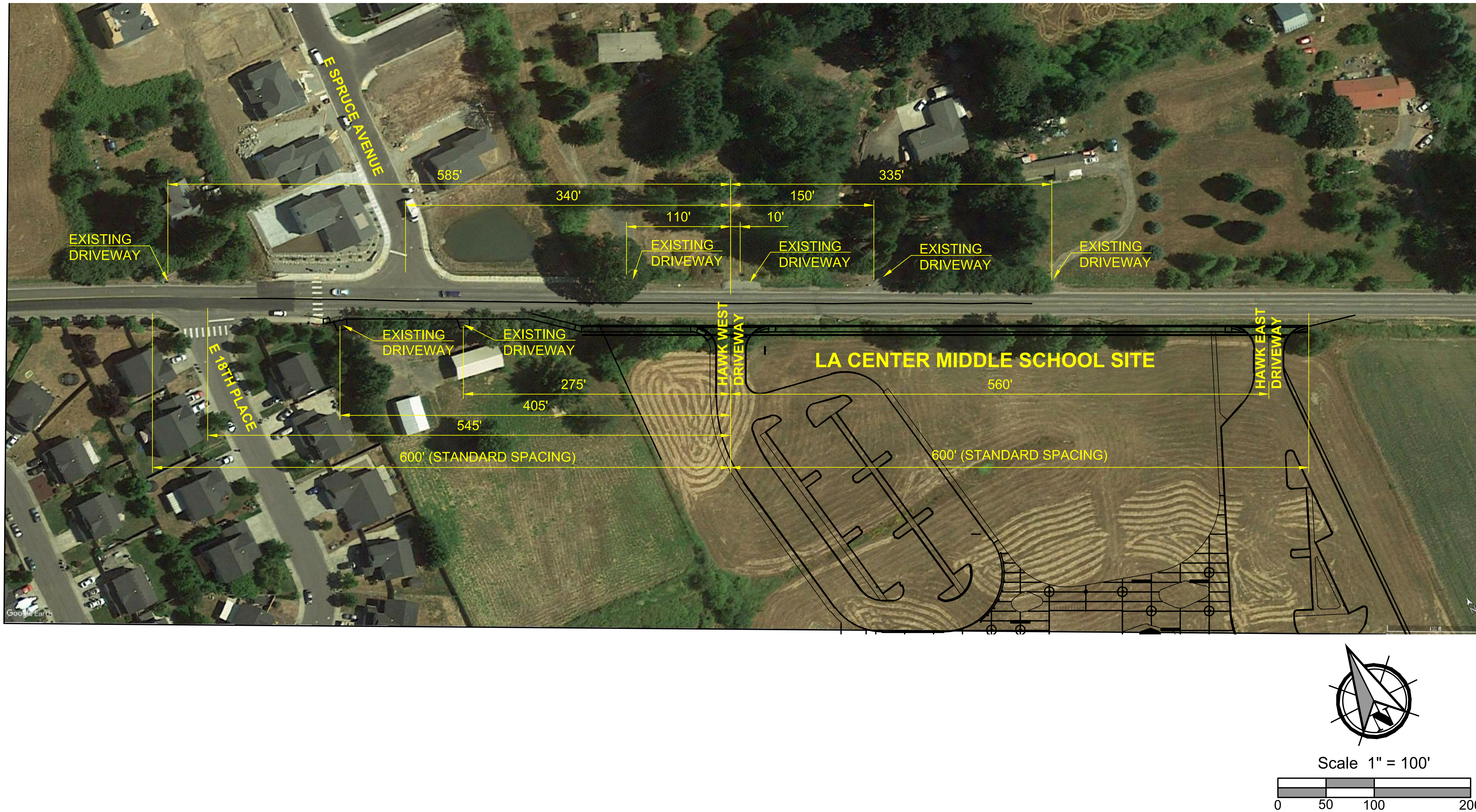
2020 With Project Volumes

La Center Middle School

NOV 2018

FIGURE **11**



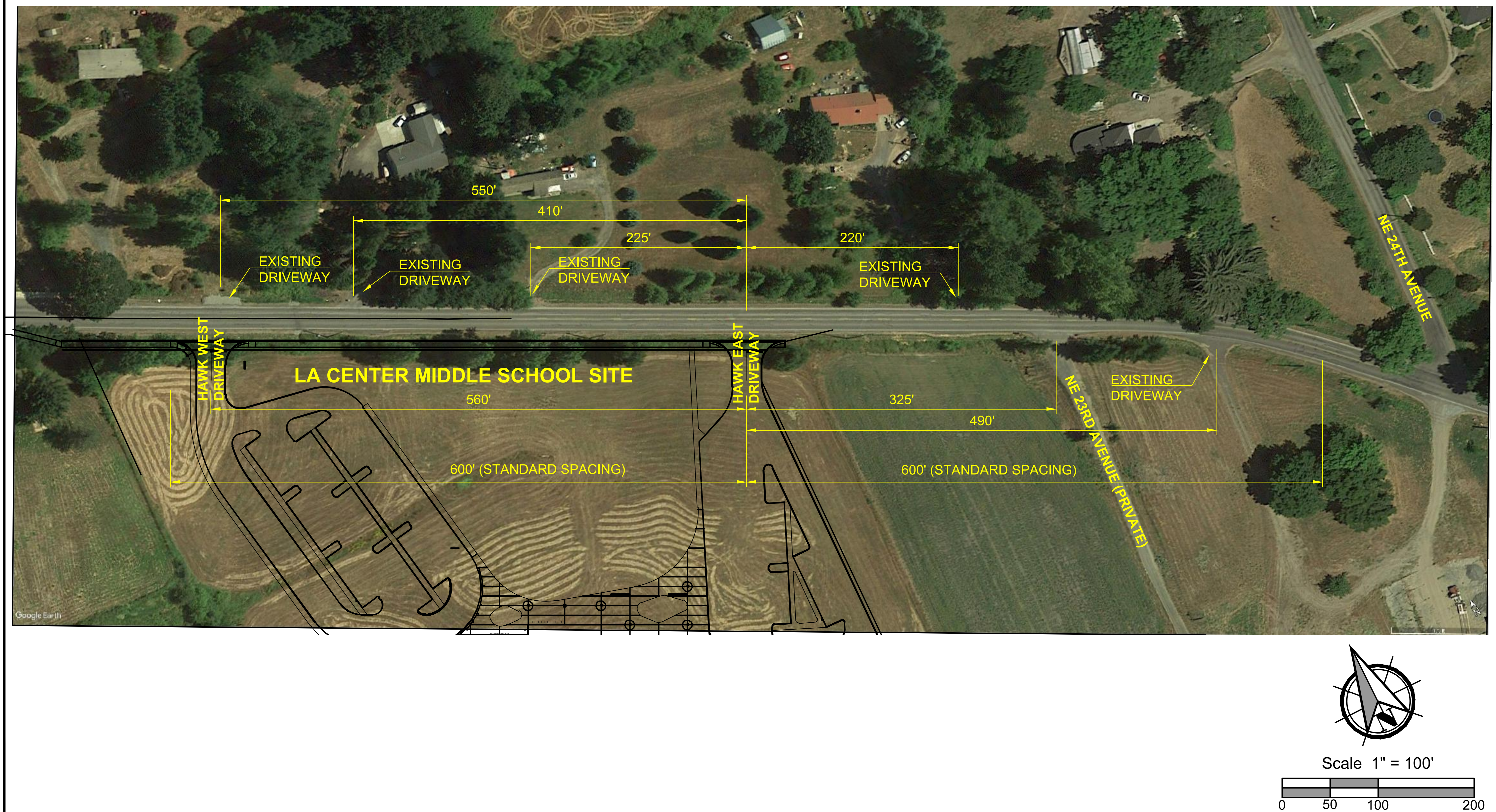
PBS

Access Spacing - Hawk West Driveway

La Center Middle School

NOV 2018

FIGURE **12**



PBS

Access Spacing - Hawk East Driveway

La Center Middle School

NOV 2018

FIGURE

13

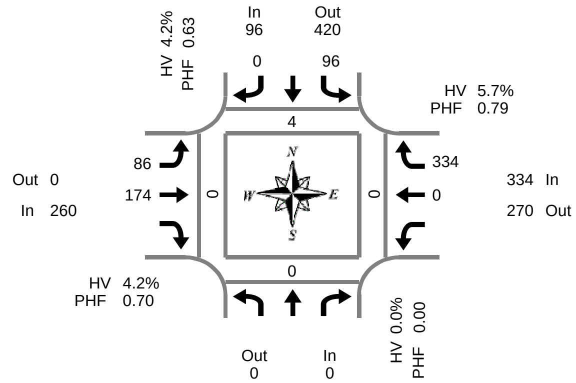
Appendix A

Traffic Counts

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

Aspen Ave & 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval	Northbound				Southbound				Eastbound				Westbound				Interval	Pedestrians			
Start	Aspen Ave				Aspen Ave				4th St				4th St					Crosswalk			
Time				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes	Total	North	South	East	West
7:00 AM				0	9		0	0	16	31		0		0	82	0	138	0	0	0	0
7:15 AM				0	11		0	0	18	34		0		0	73	0	136	0	0	0	0
7:30 AM				0	11		0	0	24	39		0		0	78	0	152	0	0	0	0
7:45 AM				0	38		0	0	26	67		0		0	66	0	197	1	0	0	0
8:00 AM				0	32		0	0	16	37		0		0	84	0	169	3	0	0	0
8:15 AM				0	15		0	0	20	31		0		0	106	0	172	0	0	0	0
8:30 AM				0	3		0	0	28	28		0		0	61	0	120	0	0	0	0
8:45 AM				0	7		0	0	22	34		0		0	50	0	113	0	0	0	0
Total Survey				0	126		0	0	170	301		0		0	600	0	1,197	4	0	0	0

Peak Hour Summary
7:30 AM to 8:30 AM

By	Northbound				Southbound				Eastbound				Westbound				Total	Pedestrians			
Approach	Aspen Ave				Aspen Ave				4th St				4th St					Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	96	420	516	0	260	0	260	0	334	270	604	0	690	4	0	0	0
%HV	0.0%				4.2%				4.2%				5.7%				4.9%				
PHF	0.00				0.63				0.70				0.79				0.88				

By	Northbound				Southbound				Eastbound				Westbound				Total
Movement	Aspen Ave				Aspen Ave				4th St				4th St				
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	96		0	96	86	174		260		0	334	334	690
%HV	NA	NA	NA	0.0%	4.2%	NA	0.0%	4.2%	2.3%	5.2%	NA	4.2%	NA	0.0%	5.7%	5.7%	4.9%
PHF				0.00	0.63		0.00	0.63	0.83	0.65		0.70		0.00	0.79	0.79	0.88

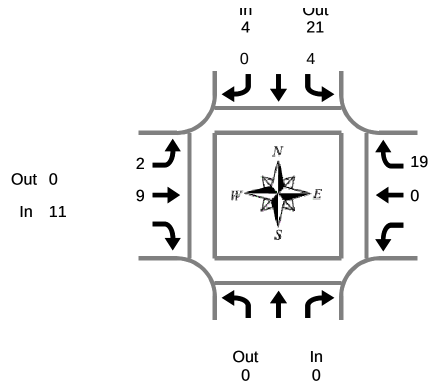
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval	Northbound				Southbound				Eastbound				Westbound				Interval	Pedestrians			
Start	Aspen Ave				Aspen Ave				4th St				4th St					Crosswalk			
Time				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes	Total	North	South	East	West
7:00 AM				0	69		0	0	84	171		0		0	299	0	623	1	0	0	0
7:15 AM				0	92		0	0	84	177		0		0	301	0	654	4	0	0	0
7:30 AM				0	96		0	0	86	174		0		0	334	0	690	4	0	0	0
7:45 AM				0	88		0	0	90	163		0		0	317	0	658	4	0	0	0
8:00 AM				0	57		0	0	86	130		0		0	301	0	574	3	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

Aspen Ave & 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	0		0	0	4	11		15		0	2	2	17
7:15 AM				0	0		0	0	4	5		9		0	0	0	9
7:30 AM				0	0		0	0	2	1		3		0	0	0	3
7:45 AM				0	3		0	3	0	2		2		0	3	3	8
8:00 AM				0	1		0	1	0	2		2		0	12	12	15
8:15 AM				0	0		0	0	0	4		4		0	4	4	8
8:30 AM				0	0		0	0	4	5		9		0	2	2	11
8:45 AM				0	0		0	0	1	2		3		0	5	5	8
Total Survey				0	4		0	4	15	32		47		0	28	28	79

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	0	0	0		4	21	25		11	0	11		19	13	32		34
PHF	0.00				0.25				0.10				0.25				0.25

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	4		0	4	2	9		11		0	19	19	34
PHF				0.00	0.25		0.00	0.25	0.05	0.13		0.10		0.00	0.25	0.25	0.25

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	3		0	3	10	19		29		0	5	5	37
7:15 AM				0	4		0	4	6	10		16		0	15	15	35
7:30 AM				0	4		0	4	2	9		11		0	19	19	34
7:45 AM				0	4		0	4	4	13		17		0	21	21	42
8:00 AM				0	1		0	1	5	13		18		0	23	23	42

Peak Hour Summary

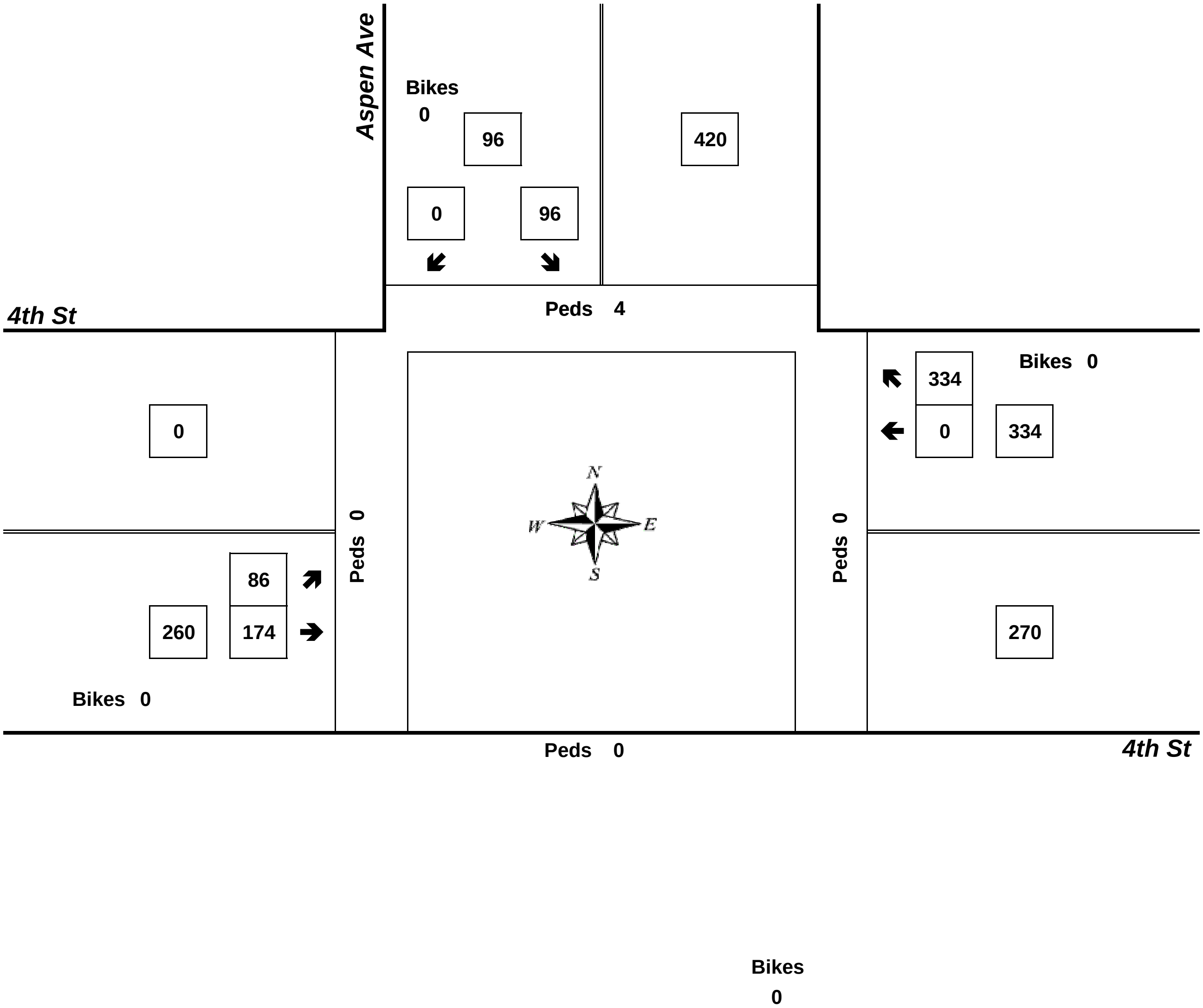
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

Aspen Ave & 4th St

7:30 AM to 8:30 AM

Thursday, September 13, 2018

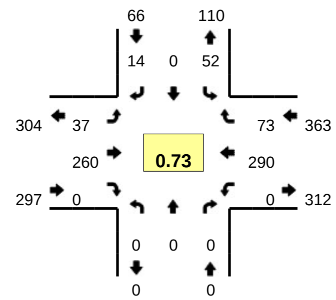


Approach	PHF	HV%	Volume
EB	0.70	4.2%	260
WB	0.79	5.7%	334
NB	0.00	0.0%	0
SB	0.63	4.2%	96
Intersection	0.88	4.9%	690

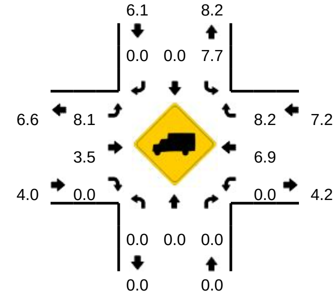
Count Period: 7:00 AM to 9:00 AM

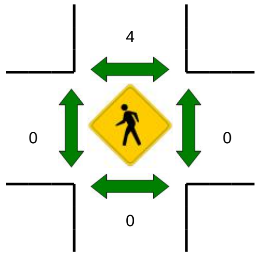
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

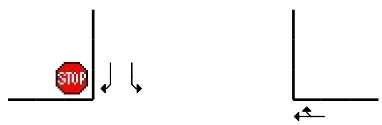
LOCATION: Aspen Ave -- W 4th St **QC JOB #:** 13784103
CITY/STATE: La Center, WA **DATE:** Thu, Apr 21 2016

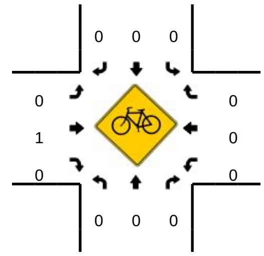


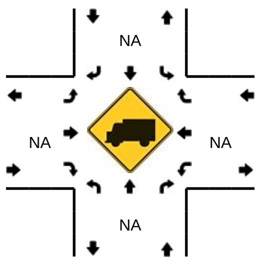
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

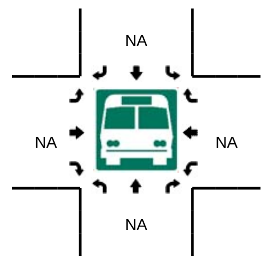












5-Min Count Period Beginning At	Aspen Ave (Northbound) Left	Thru	Right	U	Aspen Ave (Southbound) Left	Thru	Right	U	W 4th St (Eastbound) Left	Thru	Right	U	W 4th St (Westbound) Left	Thru	Right	U	Total	Hourly Totals
7:00 AM	0	0	0	0	1	0	0	0	0	10	0	0	0	28	0	0	39	
7:05 AM	0	0	0	0	0	0	1	0	3	9	0	0	0	16	1	0	30	
7:10 AM	0	0	0	0	2	0	2	0	1	9	0	0	0	21	1	0	36	
7:15 AM	0	0	0	0	1	0	0	0	1	2	0	0	0	32	2	0	38	
7:20 AM	0	0	0	0	1	0	1	0	0	13	0	0	0	29	3	0	47	
7:25 AM	0	0	0	0	1	0	2	0	1	7	0	0	0	22	0	0	33	
7:30 AM	0	0	0	0	2	0	1	0	0	13	0	0	0	26	2	0	44	
7:35 AM	0	0	0	0	2	0	0	0	6	17	0	0	0	22	1	0	48	
7:40 AM	0	0	0	0	4	0	2	0	3	22	0	0	0	20	5	0	56	
7:45 AM	0	0	0	0	6	0	2	0	4	24	0	0	0	24	2	0	62	
7:50 AM	0	0	0	0	1	0	0	0	2	24	0	0	0	23	3	0	53	
7:55 AM	0	0	0	0	9	0	0	0	3	35	0	0	0	22	7	0	76	562
8:00 AM	0	0	0	0	11	0	0	0	1	30	0	0	0	31	14	0	87	610
8:05 AM	0	0	0	0	6	0	2	0	4	33	0	0	0	25	14	0	84	664
8:10 AM	0	0	0	0	5	0	0	0	0	24	0	0	0	14	6	0	49	677
8:15 AM	0	0	0	0	3	0	3	0	5	15	0	0	0	26	2	0	54	693
8:20 AM	0	0	0	0	1	0	1	0	3	14	0	0	0	32	15	0	66	712
8:25 AM	0	0	0	0	2	0	3	0	6	9	0	0	0	25	2	0	47	726
8:30 AM	0	0	0	0	1	0	1	0	2	10	0	0	0	18	1	0	33	715
8:35 AM	0	0	0	0	0	0	0	0	2	7	0	0	0	16	1	0	26	693
8:40 AM	0	0	0	0	0	0	0	0	2	14	0	0	0	23	2	1	42	679
8:45 AM	0	0	0	0	1	0	1	0	4	13	0	0	0	22	1	0	42	659
8:50 AM	0	0	0	0	1	0	1	0	0	11	0	0	0	14	1	0	28	634
8:55 AM	0	0	0	0	0	0	2	0	0	8	0	0	0	19	0	0	29	587

Peak 15-Min Flowrates	Northbound Left	Thru	Right	U	Southbound Left	Thru	Right	U	Eastbound Left	Thru	Right	U	Westbound Left	Thru	Right	U	Total
All Vehicles	0	0	0	0	104	0	8	0	32	392	0	0	0	312	140	0	988
Heavy Trucks	0	0	0		16	0	0		12	16	0		0	20	8		72
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

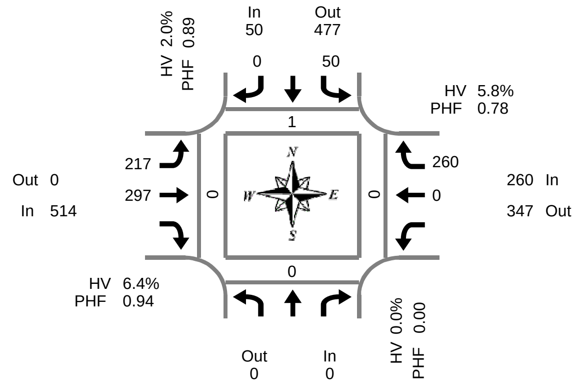
Comments:

Report generated on 4/29/2016 2:44 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

Aspen Ave & 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
2:00 PM				0	6		0	0	32	41		0		0	27	0	106	0	0	0	0
2:15 PM				0	14		0	0	33	60		0		0	47	0	154	1	0	0	0
2:30 PM				0	11		0	0	50	83		0		0	45	0	189	0	0	0	0
2:45 PM				0	14		0	0	54	67		0		0	70	0	205	1	0	0	0
3:00 PM				0	13		0	0	63	74		0		0	83	0	233	0	0	0	0
3:15 PM				0	12		0	0	50	73		0		0	62	0	197	0	0	0	0
3:30 PM				0	8		0	0	50	65		0		0	59	0	182	0	0	0	0
3:45 PM				0	13		0	0	43	59		0		0	45	1	160	0	0	0	0
Total Survey				0	91		0	0	375	522		0		0	438	1	1,426	2	0	0	0

Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	50	477	527	0	514	0	514	0	260	347	607	0	824	1	0	0	0
%HV	0.0%				2.0%				6.4%				5.8%				5.9%				
PHF	0.00				0.89				0.94				0.78				0.88				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	50		0	50	217	297		514		0	260	260	824
%HV	NA	NA	NA	0.0%	2.0%	NA	0.0%	2.0%	5.1%	7.4%	NA	6.4%	NA	0.0%	5.8%	5.8%	5.9%
PHF				0.00	0.89		0.00	0.89	0.86	0.89		0.94		0.00	0.78	0.78	0.88

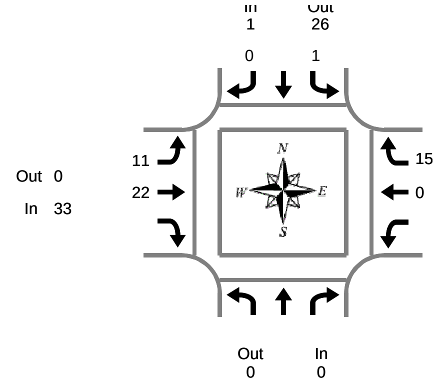
Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
2:00 PM				0	45		0	0	169	251		0		0	189	0	654	2	0	0	0
2:15 PM				0	52		0	0	200	284		0		0	245	0	781	2	0	0	0
2:30 PM				0	50		0	0	217	297		0		0	260	0	824	1	0	0	0
2:45 PM				0	47		0	0	217	279		0		0	274	0	817	1	0	0	0
3:00 PM				0	46		0	0	206	271		0		0	249	1	772	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

Aspen Ave & 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
2:00 PM				0	0		0	0	0	1		1		0	2	2	3
2:15 PM				0	0		0	0	1	2		3		0	2	2	5
2:30 PM				0	0		0	0	3	20		23		0	3	3	26
2:45 PM				0	0		0	0	4	1		5		0	1	1	6
3:00 PM				0	0		0	0	2	1		3		0	7	7	10
3:15 PM				0	1		0	1	2	0		2		0	4	4	7
3:30 PM				0	2		0	2	0	5		5		0	4	4	11
3:45 PM				0	1		0	1	2	1		3		0	7	7	11
Total Survey				0	4		0	4	14	31		45		0	30	30	79

Heavy Vehicle Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound 4th St			Westbound 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	26	27	33	0	33	15	23	38	49
PHF	0.00			0.06			0.27			0.25			0.29

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	1		0	1	11	22		33		0	15	15	49
PHF				0.00	0.06		0.00	0.06	0.31	0.24		0.27		0.00	0.25	0.25	0.29

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

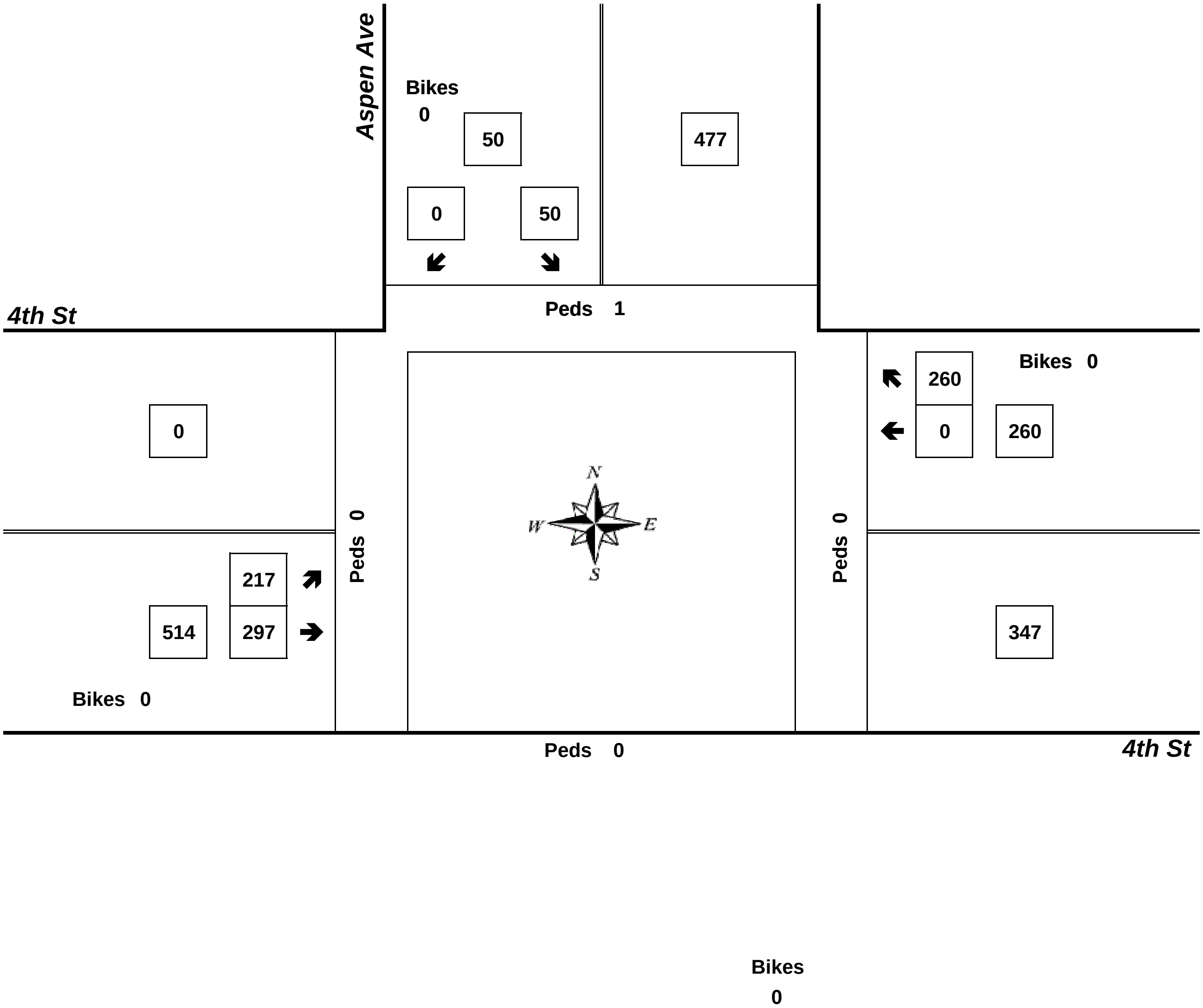
Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
2:00 PM				0	0		0	0	8	24		32		0	8	8	40
2:15 PM				0	0		0	0	10	24		34		0	13	13	47
2:30 PM				0	1		0	1	11	22		33		0	15	15	49
2:45 PM				0	3		0	3	8	7		15		0	16	16	34
3:00 PM				0	4		0	4	6	7		13		0	22	22	39

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

Aspen Ave & 4th St

2:30 PM to 3:30 PM
Thursday, September 13, 2018

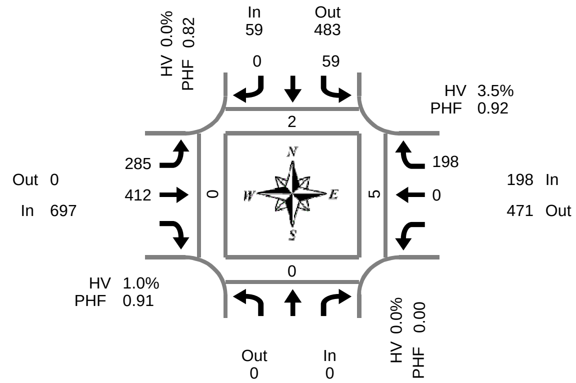


Approach	PHF	HV%	Volume
EB	0.94	6.4%	514
WB	0.78	5.8%	260
NB	0.00	0.0%	0
SB	0.89	2.0%	50
Intersection	0.88	5.9%	824

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
_4:45 PM to 5:45 PM_

Aspen Ave & 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	11		0	0	53	72		0		0	65	0	201	1	0	1	0
4:15 PM				0	10		0	0	60	89		0		0	61	0	220	1	0	0	0
4:30 PM				0	11		0	0	80	99		0		0	67	0	257	0	0	1	0
4:45 PM				0	14		0	0	73	100		0		0	52	0	239	0	0	0	0
5:00 PM				0	17		0	0	60	94		0		0	44	0	215	2	0	2	0
5:15 PM				0	10		0	0	73	106		1		0	48	0	237	0	0	3	0
5:30 PM				0	18		0	0	79	112		0		0	54	0	263	0	0	0	0
5:45 PM				0	9		0	0	73	80		0		0	59	0	221	0	0	0	0
Total Survey				0	100		0	0	551	752		1		0	450	0	1,853	4	0	7	0

Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	59	483	542	0	697	0	697	1	198	471	669	0	954	2	0	5	0
%HV	0.0%				0.0%				1.0%				3.5%				1.5%				
PHF	0.00				0.82				0.91				0.92				0.91				

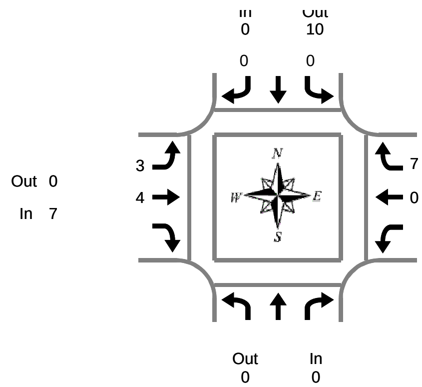
By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	59		0	59	285	412		697		0	198	198	954
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	1.1%	1.0%	NA	1.0%	NA	0.0%	3.5%	3.5%	1.5%
PHF				0.00	0.82		0.00	0.82	0.90	0.92		0.91		0.00	0.92	0.92	0.91

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound 4th St				Westbound 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	46		0	0	266	360		0		0	245	0	917	2	0	2	0
4:15 PM				0	52		0	0	273	382		0		0	224	0	931	3	0	3	0
4:30 PM				0	52		0	0	286	399		1		0	211	0	948	2	0	6	0
4:45 PM				0	59		0	0	285	412		1		0	198	0	954	2	0	5	0
5:00 PM				0	54		0	0	285	392		1		0	205	0	936	2	0	5	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:45 PM to 5:45 PM

Aspen Ave & 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval	Northbound				Southbound				Eastbound				Westbound				Interval
Start	Aspen Ave				Aspen Ave				4th St				4th St				
Time				Total	L		R	Total	L	T		Total		T	R	Total	Total
4:00 PM				0	0		0	0	0	2		2		0	4	4	6
4:15 PM				0	0		0	0	1	2		3		0	4	4	7
4:30 PM				0	0		0	0	0	1		1		0	2	2	3
4:45 PM				0	0		0	0	2	2		4		0	4	4	8
5:00 PM				0	0		0	0	0	0		0		0	0	0	0
5:15 PM				0	0		0	0	0	1		1		0	2	2	3
5:30 PM				0	0		0	0	1	1		2		0	1	1	3
5:45 PM				0	0		0	0	0	2		2		0	1	1	3
Total Survey				0	0		0	0	4	11		15		0	18	18	33

Heavy Vehicle Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound				Southbound				Eastbound				Westbound				Total
	Aspen Ave				Aspen Ave				4th St				4th St				
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	0	0	0		0	10	10		7	0	7		7	4	11		14
PHF	0.00				0.00				0.22				0.18				0.19

By Movement	Northbound				Southbound				Eastbound				Westbound				Total
	Aspen Ave				Aspen Ave				4th St				4th St				
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	0		0	0	3	4		7		0	7	7	14
PHF				0.00	0.00		0.00	0.00	0.25	0.20		0.22		0.00	0.18	0.18	0.19

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval	Northbound				Southbound				Eastbound				Westbound				Interval
Start	Aspen Ave				Aspen Ave				4th St				4th St				
Time				Total	L		R	Total	L	T		Total		T	R	Total	Total
4:00 PM				0	0		0	0	3	7		10		0	14	14	24
4:15 PM				0	0		0	0	3	5		8		0	10	10	18
4:30 PM				0	0		0	0	2	4		6		0	8	8	14
4:45 PM				0	0		0	0	3	4		7		0	7	7	14
5:00 PM				0	0		0	0	1	4		5		0	4	4	9

Peak Hour Summary

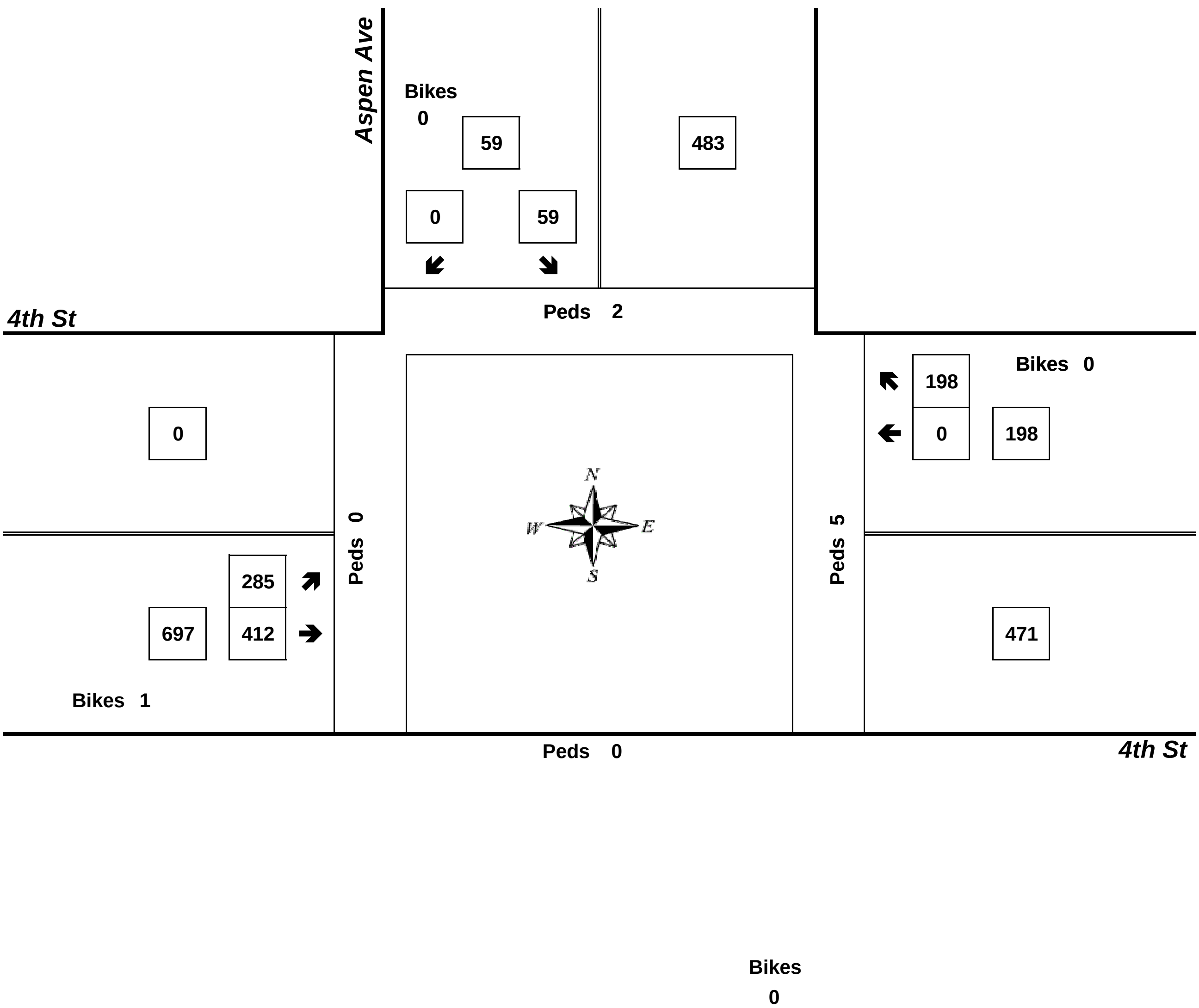
All Traffic Data
Services Inc.

Clay Carney
(503) 833-2740

Aspen Ave & 4th St

4:45 PM to 5:45 PM

Thursday, September 13, 2018

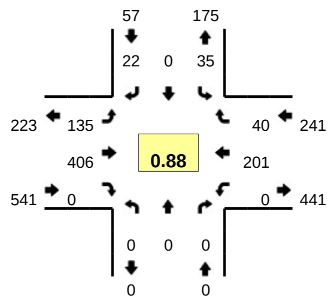


Approach	PHF	HV%	Volume
EB	0.91	1.0%	697
WB	0.92	3.5%	198
NB	0.00	0.0%	0
SB	0.82	0.0%	59
Intersection	0.91	1.5%	954

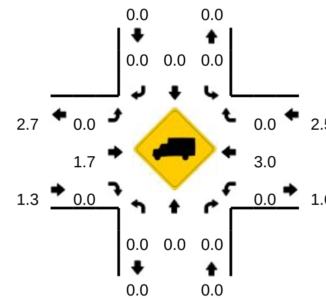
Count Period: 4:00 PM to 6:00 PM

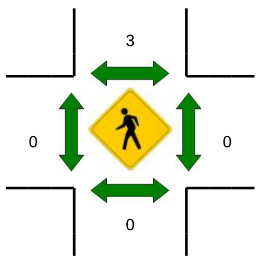
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

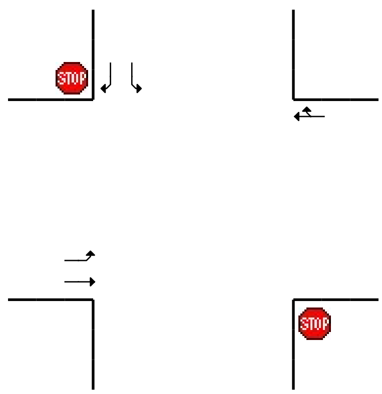
LOCATION: Aspen Ave -- W 4th St | **QC JOB #:** 13784104
CITY/STATE: La Center, WA | **DATE:** Thu, Apr 21 2016

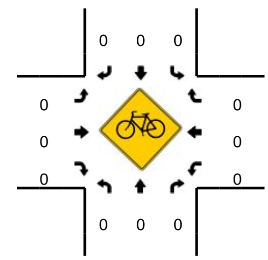


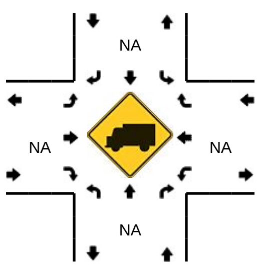
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

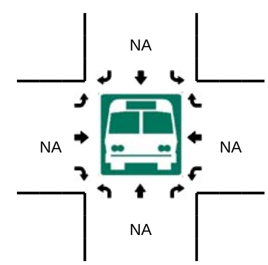












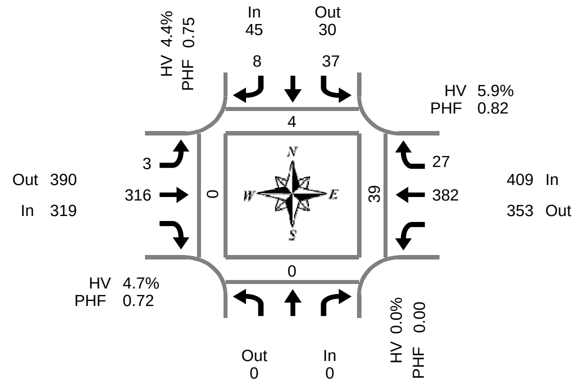
5-Min Count Period Beginning At	Aspen Ave (Northbound) Left	Thru	Right	U	Aspen Ave (Southbound) Left	Thru	Right	U	W 4th St (Eastbound) Left	Thru	Right	U	W 4th St (Westbound) Left	Thru	Right	U	Total	Hourly Totals
4:00 PM	0	0	0	0	1	0	2	0	10	31	0	0	0	21	6	0	71	
4:05 PM	0	0	0	0	1	0	0	0	15	39	0	0	0	22	1	0	78	
4:10 PM	0	0	0	0	3	0	1	0	9	19	0	0	0	22	5	0	59	
4:15 PM	0	0	0	0	0	0	2	0	10	36	0	0	0	19	4	0	71	
4:20 PM	0	0	0	0	2	0	2	0	11	28	0	0	0	16	7	0	66	
4:25 PM	0	0	0	0	1	0	0	0	15	29	0	0	0	23	3	0	71	
4:30 PM	0	0	0	0	0	0	3	0	13	35	0	0	0	15	3	0	69	
4:35 PM	0	0	0	0	1	0	2	0	11	25	0	0	0	20	1	0	60	
4:40 PM	0	0	0	0	3	0	1	0	9	25	0	0	0	20	1	0	59	
4:45 PM	0	0	0	0	4	0	2	0	10	24	0	0	0	23	3	0	66	
4:50 PM	0	0	0	0	8	0	4	0	11	33	0	0	0	14	6	0	76	
4:55 PM	0	0	0	0	1	0	1	0	11	44	0	0	0	28	3	0	88	834
5:00 PM	0	0	0	0	3	0	1	0	16	34	0	0	0	14	6	0	74	837
5:05 PM	0	0	0	0	2	0	2	0	6	34	0	0	0	15	7	0	66	825
5:10 PM	0	0	0	0	1	0	4	0	9	27	0	0	0	17	3	0	61	827
5:15 PM	0	0	0	0	0	0	1	0	8	40	0	0	0	14	3	0	66	822
5:20 PM	0	0	0	0	1	0	0	0	14	31	0	0	0	12	3	0	61	817
5:25 PM	0	0	0	0	3	0	1	0	15	43	0	0	0	20	3	0	85	831
5:30 PM	0	0	0	0	4	0	1	0	10	27	0	0	0	18	0	0	60	822
5:35 PM	0	0	0	0	4	0	1	0	12	30	0	0	0	15	1	0	63	825
5:40 PM	0	0	0	0	5	0	4	0	10	25	0	0	0	19	3	0	66	832
5:45 PM	0	0	0	0	3	0	2	0	13	38	0	0	0	15	2	0	73	839
5:50 PM	0	0	0	0	4	0	2	0	15	30	0	0	0	16	3	0	70	833
5:55 PM	0	0	0	0	2	0	1	0	14	33	0	0	0	11	6	0	67	812

Peak 15-Min Flowrates	Northbound Left	Thru	Right	U	Southbound Left	Thru	Right	U	Eastbound Left	Thru	Right	U	Westbound Left	Thru	Right	U	Total
All Vehicles	0	0	0	0	48	0	24	0	152	444	0	0	0	224	60	0	952
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	12	0		16
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Total Vehicle Summary

Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Peak Hour Summary
7:30 AM to 8:30 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	3		0	1	0	38		0		82	1	0	124	0	0	1	0
7:15 AM				0	3		1	0	0	54		0		75	1	0	134	0	0	1	0
7:30 AM				0	8		1	0	1	54		1		78	6	0	148	0	0	2	0
7:45 AM				0	14		1	0	0	111		0		80	6	0	212	0	0	2	0
8:00 AM				0	10		1	0	2	96		0		106	8	0	223	1	0	22	0
8:15 AM				0	5		5	0	0	55		0		118	7	0	190	3	0	13	0
8:30 AM				0	2		1	0	1	29		0		56	4	0	93	0	0	0	0
8:45 AM				0	1		1	0	1	40		0		56	0	0	99	0	0	1	0
Total Survey				0	46		11	1	5	477		1		651	33	0	1,223	4	0	42	0

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	45	30	75	0	319	390	709	1	409	353	762	0	773	4	0	39	0
%HV	0.0%				4.4%				4.7%				5.9%				5.3%				
PHF	0.00				0.75				0.72				0.82				0.87				

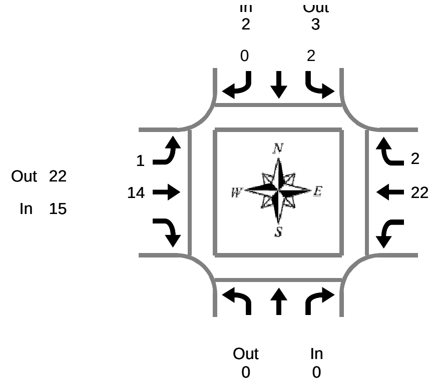
By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	37		8	45	3	316		319		382	27	409	773
%HV	NA	NA	NA	0.0%	5.4%	NA	0.0%	4.4%	33.3%	4.4%	NA	4.7%	NA	5.8%	7.4%	5.9%	5.3%
PHF				0.00	0.66		0.40	0.75	0.38	0.71		0.72		0.81	0.84	0.82	0.87

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
7:00 AM				0	28		3	1	1	257		1		315	14	0	618	0	0	6	0
7:15 AM				0	35		4	0	3	315		1		339	21	0	717	1	0	27	0
7:30 AM				0	37		8	0	3	316		1		382	27	0	773	4	0	39	0
7:45 AM				0	31		8	0	3	291		0		360	25	0	718	4	0	37	0
8:00 AM				0	18		8	0	4	220		0		336	19	0	605	4	0	36	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	1		0	1	0	10		10		2	0	2	13
7:15 AM				0	0		0	0	0	5		5		0	0	0	5
7:30 AM				0	0		0	0	1	2		3		0	1	1	4
7:45 AM				0	2		0	2	0	5		5		3	1	4	11
8:00 AM				0	0		0	0	0	4		4		14	0	14	18
8:15 AM				0	0		0	0	0	3		3		5	0	5	8
8:30 AM				0	0		0	0	0	3		3		2	0	2	5
8:45 AM				0	0		0	0	0	1		1		5	0	5	6
Total Survey				0	3		0	3	1	33		34		31	2	33	70

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	2	3	5	15	22	37	24	16	40	41
PHF	0.00			0.25			0.21			0.26			0.28

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	2		0	2	1	14		15		22	2	24	41
PHF				0.00	0.25		0.00	0.25	0.25	0.21		0.21		0.25	0.25	0.26	0.28

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
7:00 AM				0	3		0	3	1	22		23		5	2	7	33
7:15 AM				0	2		0	2	1	16		17		17	2	19	38
7:30 AM				0	2		0	2	1	14		15		22	2	24	41
7:45 AM				0	2		0	2	0	15		15		24	1	25	42
8:00 AM				0	0		0	0	0	11		11		26	0	26	37

Peak Hour Summary

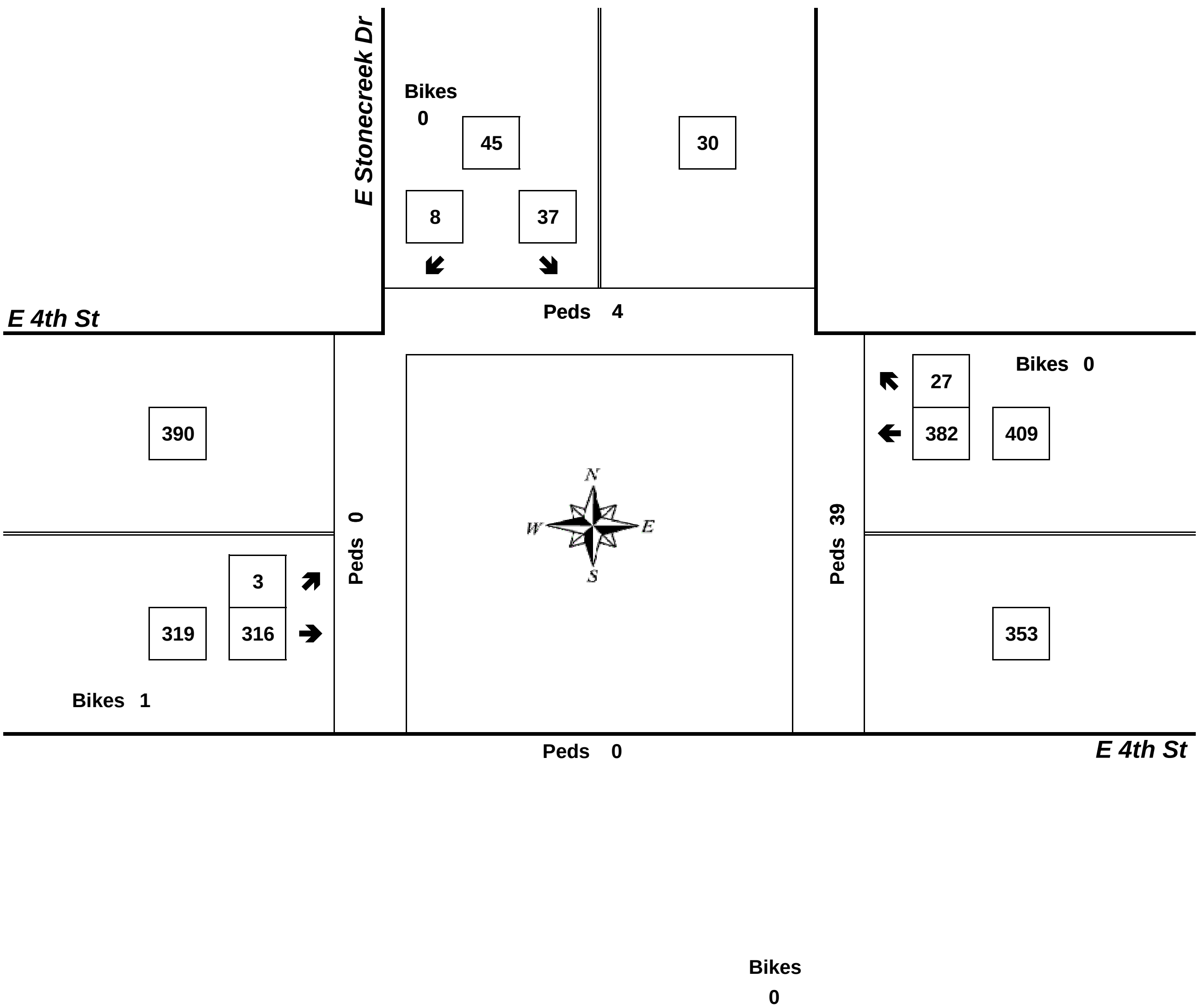
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

7:30 AM to 8:30 AM

Thursday, September 13, 2018



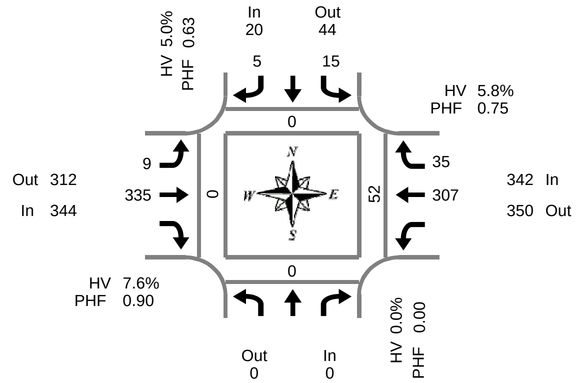
Approach	PHF	HV%	Volume
EB	0.72	4.7%	319
WB	0.82	5.9%	409
NB	0.00	0.0%	0
SB	0.75	4.4%	45
Intersection	0.87	5.3%	773

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
_2:30 PM to 3:30 PM_

E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
2:00 PM				0	4		2	0	2	46		0		35	6	0	95	0	0	0	0
2:15 PM				0	4		1	0	4	73		0		52	5	0	139	0	0	0	0
2:30 PM				0	6		0	0	3	93		0		44	4	0	150	0	0	0	0
2:45 PM				0	3		0	0	2	85		0		99	15	0	204	0	0	10	0
3:00 PM				0	5		3	0	2	78		0		101	12	0	201	0	0	41	0
3:15 PM				0	1		2	0	2	79		0		63	4	0	151	0	0	1	0
3:30 PM				0	5		1	0	5	72		0		63	2	0	148	0	0	0	0
3:45 PM				0	5		0	0	1	68		0		57	9	1	140	0	0	0	0
Total Survey				0	33		9	0	21	594		0		514	57	1	1,228	0	0	52	0

Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	20	44	64	0	344	312	656	0	342	350	692	0	706	0	0	52	0
%HV	0.0%				5.0%				7.6%				5.8%				6.7%				
PHF	0.00				0.63				0.90				0.75				0.87				

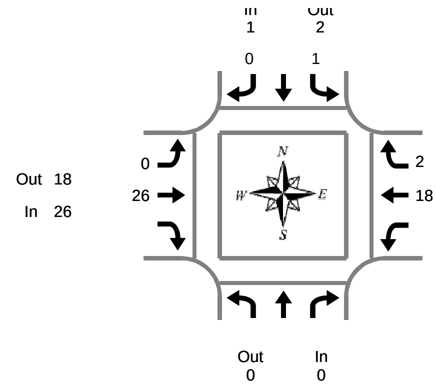
By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	15		5	20	9	335		344		307	35	342	706
%HV	NA	NA	NA	0.0%	6.7%	NA	0.0%	5.0%	0.0%	7.8%	NA	7.6%	NA	5.9%	5.7%	5.8%	6.7%
PHF				0.00	0.63		0.42	0.63	0.75	0.90		0.90		0.76	0.58	0.75	0.87

Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
2:00 PM				0	17		3	0	11	297		0		230	30	0	588	0	0	10	0
2:15 PM				0	18		4	0	11	329		0		296	36	0	694	0	0	51	0
2:30 PM				0	15		5	0	9	335		0		307	35	0	706	0	0	52	0
2:45 PM				0	14		6	0	11	314		0		326	33	0	704	0	0	52	0
3:00 PM				0	16		6	0	10	297		0		284	27	1	640	0	0	42	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
2:00 PM				0	0		0	0	0	1		1		3	0	3	4
2:15 PM				0	0		0	0	0	1		1		2	0	2	3
2:30 PM				0	0		0	0	0	19		19		3	0	3	22
2:45 PM				0	0		0	0	0	3		3		3	0	3	6
3:00 PM				0	1		0	1	0	2		2		9	2	11	14
3:15 PM				0	0		0	0	0	2		2		3	0	3	5
3:30 PM				0	1		0	1	0	2		2		2	0	2	5
3:45 PM				0	0		0	0	0	2		2		7	0	7	9
Total Survey				0	2		0	2	0	32		32		32	2	34	68

Heavy Vehicle Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	0	0	0		1	2	3		26	18	44		20	27	47		47
PHF	0.00				0.13				0.27				0.29				0.28

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	1		0	1	0	26		26		18	2	20	47
PHF				0.00	0.13		0.00	0.13	0.00	0.27		0.27		0.30	0.25	0.29	0.28

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
2:00 PM				0	0		0	0	0	24		24		11	0	11	35
2:15 PM				0	1		0	1	0	25		25		17	2	19	45
2:30 PM				0	1		0	1	0	26		26		18	2	20	47
2:45 PM				0	2		0	2	0	9		9		17	2	19	30
3:00 PM				0	2		0	2	0	8		8		21	2	23	33

Peak Hour Summary

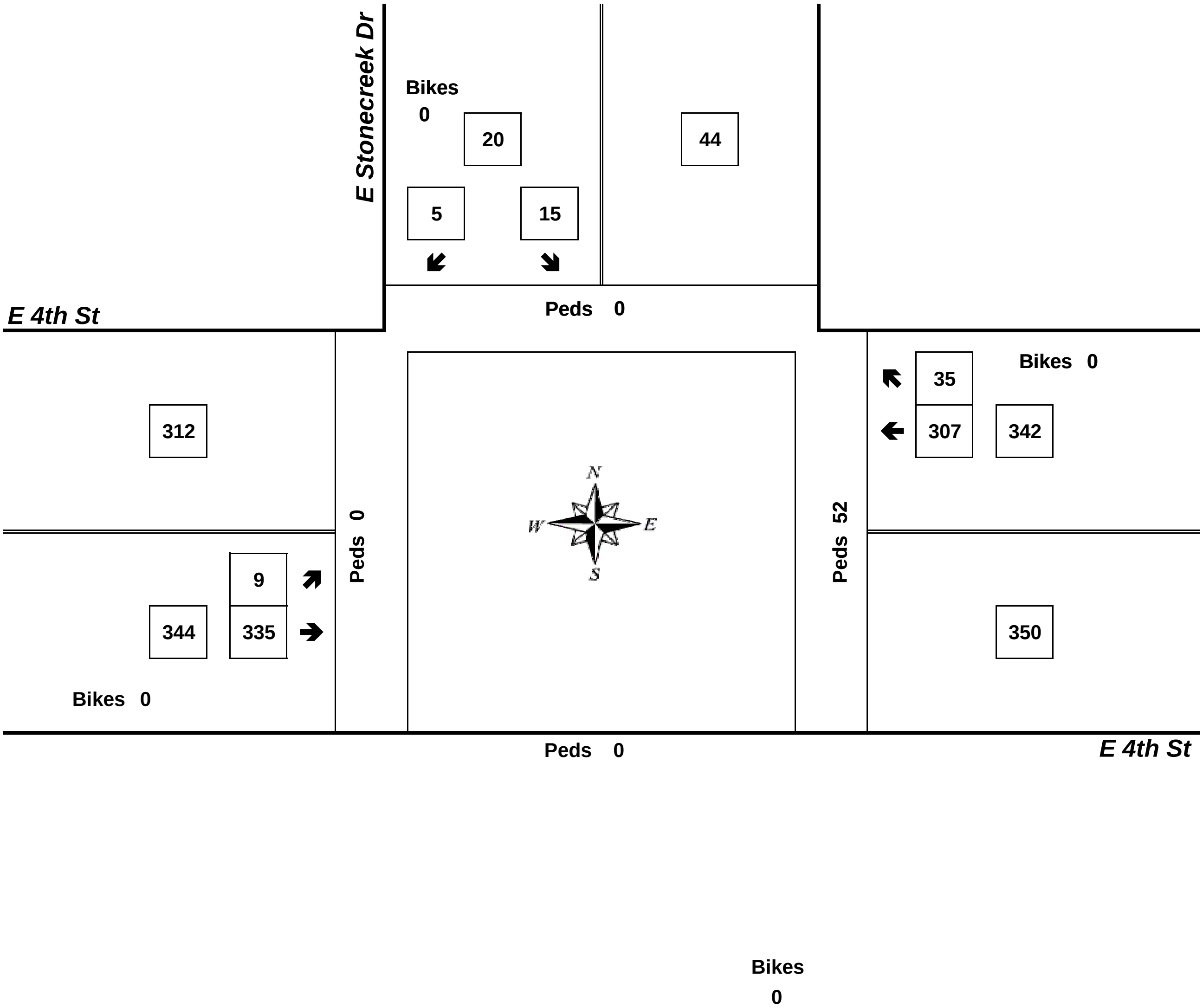
All Traffic Data
Services Inc.

Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

2:30 PM to 3:30 PM

Thursday, September 13, 2018

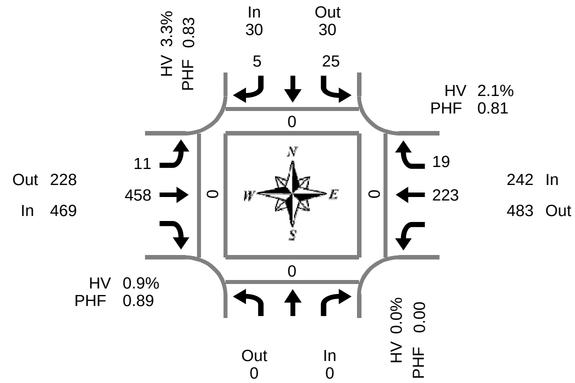


Approach	PHF	HV%	Volume
EB	0.90	7.6%	344
WB	0.75	5.8%	342
NB	0.00	0.0%	0
SB	0.63	5.0%	20
Intersection	0.87	6.7%	706

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
4:45 PM to 5:45 PM

E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	4		0	0	3	79		0		72	4	0	162	0	0	0	0
4:15 PM				0	3		0	0	0	104		0		76	6	0	189	0	0	0	0
4:30 PM				0	3		2	0	1	99		0		77	3	0	185	0	0	0	0
4:45 PM				0	6		3	0	0	114		0		60	5	0	188	0	0	0	0
5:00 PM				0	3		0	0	2	111		0		48	5	0	169	0	0	0	0
5:15 PM				0	7		2	1	3	107		1		49	0	0	168	0	0	0	0
5:30 PM				0	9		0	0	6	126		0		66	9	0	216	0	0	0	0
5:45 PM				0	8		1	0	0	89		0		74	4	0	176	0	0	0	0
Total Survey				0	43		8	1	15	829		1		522	36	0	1,453	0	0	0	0

Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	30	30	60	1	469	228	697	1	242	483	725	0	741	0	0	0	0
%HV	0.0%				3.3%				0.9%				2.1%				1.3%				
PHF	0.00				0.83				0.89				0.81				0.86				

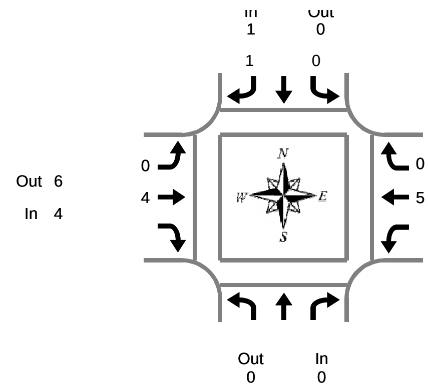
By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	25		5	30	11	458		469		223	19	242	741
%HV	NA	NA	NA	0.0%	0.0%	NA	20.0%	3.3%	0.0%	0.9%	NA	0.9%	NA	2.2%	0.0%	2.1%	1.3%
PHF				0.00	0.69		0.42	0.83	0.46	0.91		0.89		0.84	0.53	0.81	0.86

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
				Bikes	L		R	Bikes	L	T		Bikes		T	R	Bikes		North	South	East	West
4:00 PM				0	16		5	0	4	396		0		285	18	0	724	0	0	0	0
4:15 PM				0	15		5	0	3	428		0		261	19	0	731	0	0	0	0
4:30 PM				0	19		7	1	6	431		1		234	13	0	710	0	0	0	0
4:45 PM				0	25		5	1	11	458		1		223	19	0	741	0	0	0	0
5:00 PM				0	27		3	1	11	433		1		237	18	0	729	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:45 PM to 5:45 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		0	0	0	1		1		7	0	7	8
4:15 PM				0	0		0	0	0	2		2		4	0	4	6
4:30 PM				0	0		0	0	0	1		1		2	0	2	3
4:45 PM				0	0		1	1	0	2		2		2	0	2	5
5:00 PM				0	0		0	0	0	0		0		0	0	0	0
5:15 PM				0	0		0	0	0	1		1		2	0	2	3
5:30 PM				0	0		0	0	0	1		1		1	0	1	2
5:45 PM				0	0		0	0	0	2		2		1	0	1	3
Total Survey				0	0		1	1	0	10		10		19	0	19	30

Heavy Vehicle Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	0	1	4	6	10	5	4	9	10
PHF	0.00			0.25			0.20			0.10			0.15

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
				Total	L		R	Total	L	T		Total		T	R	Total	
Volume				0	0		1	1	0	4		4		5	0	5	10
PHF				0.00	0.00		0.25	0.25	0.00	0.20		0.20		0.10	0.00	0.10	0.15

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

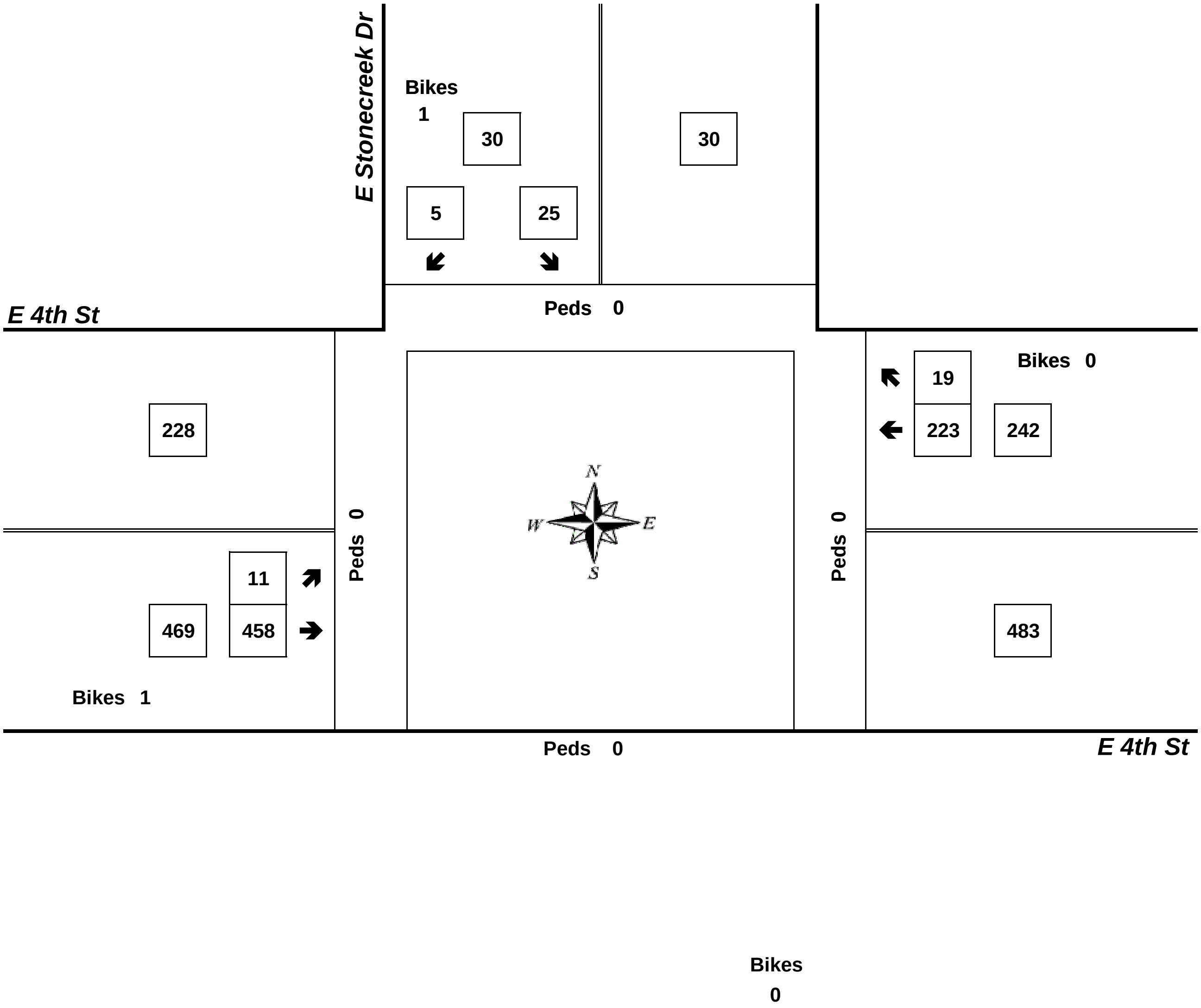
Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Interval Total
				Total	L		R	Total	L	T		Total		T	R	Total	
4:00 PM				0	0		1	1	0	6		6		15	0	15	22
4:15 PM				0	0		1	1	0	5		5		8	0	8	14
4:30 PM				0	0		1	1	0	4		4		6	0	6	11
4:45 PM				0	0		1	1	0	4		4		5	0	5	10
5:00 PM				0	0		0	0	0	4		4		4	0	4	8

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

4:45 PM to 5:45 PM
Thursday, September 13, 2018



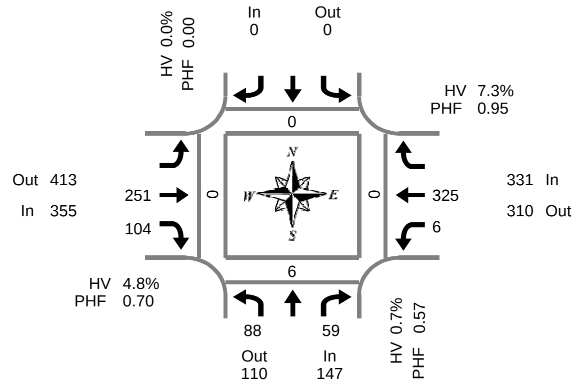
Approach	PHF	HV%	Volume
EB	0.89	0.9%	469
WB	0.81	2.1%	242
NB	0.00	0.0%	0
SB	0.83	3.3%	30
Intersection	0.86	1.3%	741

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

West Access & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound West Access L		R	Bikes	Southbound West Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
7:00 AM	6		0	0				0		37	4	1	1	78		0	126	0	1	0	0
7:15 AM	5		5	0				0		45	13	0	1	69		0	138	0	2	0	0
7:30 AM	5		6	0				0		41	19	1	2	80		0	153	0	2	0	0
7:45 AM	14		3	0				0		101	25	0	2	74		0	219	0	3	0	0
8:00 AM	34		30	0				0		72	36	0	1	85		0	258	0	1	0	0
8:15 AM	35		20	0				0		37	24	0	1	86		0	203	0	0	0	0
8:30 AM	9		5	0				0		28	2	0	2	52		0	98	0	3	0	0
8:45 AM	7		5	0				0		39	2	0	2	48		0	103	0	3	0	0
Total Survey	115		74	0				0		400	125	2	12	572		0	1,298	0	15	0	0

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound West Access In	Out	Total	Bikes	Southbound West Access In	Out	Total	Bikes	Eastbound E 4th St In	Out	Total	Bikes	Westbound E 4th St In	Out	Total	Bikes	Total	Pedestrians Crosswalk North	South	East	West
Volume	147	110	257	0	0	0	0	0	355	413	768	1	331	310	641	0	833	0	6	0	0
%HV	0.7%				0.0%				4.8%				7.3%				5.0%				
PHF	0.57				0.00				0.70				0.95				0.81				

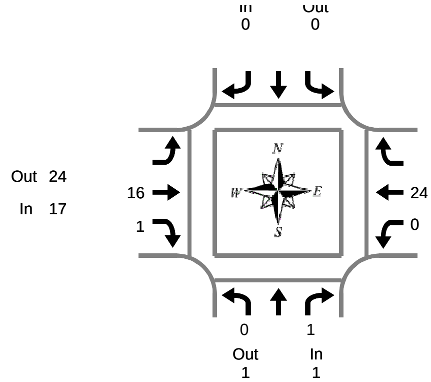
By Movement	Northbound West Access L		R	Total	Southbound West Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Total
Volume	88		59	147				0		251	104	355	6	325		331	833
%HV	0.0%	NA	1.7%	0.7%	NA	NA	NA	0.0%	NA	6.4%	1.0%	4.8%	0.0%	7.4%	NA	7.3%	5.0%
PHF	0.63		0.49	0.57				0.00		0.62	0.72	0.70	0.75	0.94		0.95	0.81

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound West Access L		R	Bikes	Southbound West Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
7:00 AM	30		14	0				0		224	61	2	6	301		0	636	0	8	0	0
7:15 AM	58		44	0				0		259	93	1	6	308		0	768	0	8	0	0
7:30 AM	88		59	0				0		251	104	1	6	325		0	833	0	6	0	0
7:45 AM	92		58	0				0		238	87	0	6	297		0	778	0	7	0	0
8:00 AM	85		60	0				0		176	64	0	6	271		0	662	0	7	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

West Access & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		0	0				0		11	0	11	0	2		2	13
7:15 AM	0		1	1				0		5	0	5	0	0		0	6
7:30 AM	0		0	0				0		2	0	2	0	1		1	3
7:45 AM	0		0	0				0		7	0	7	0	4		4	11
8:00 AM	0		1	1				0		4	0	4	0	14		14	19
8:15 AM	0		0	0				0		3	1	4	0	5		5	9
8:30 AM	1		0	1				0		2	0	2	0	1		1	4
8:45 AM	1		0	1				0		1	0	1	0	4		4	6
Total Survey	2		2	4				0		35	1	36	0	31		31	71

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound West Access			Southbound West Access			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	0	0	0	17	24	41	24	17	41	42
PHF	0.13			0.00			0.24			0.26			0.27

By Movement	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		1	1				0		16	1	17	0	24		24	42
PHF	0.00		0.25	0.13				0.00		0.22	0.25	0.24	0.00	0.26		0.26	0.27

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

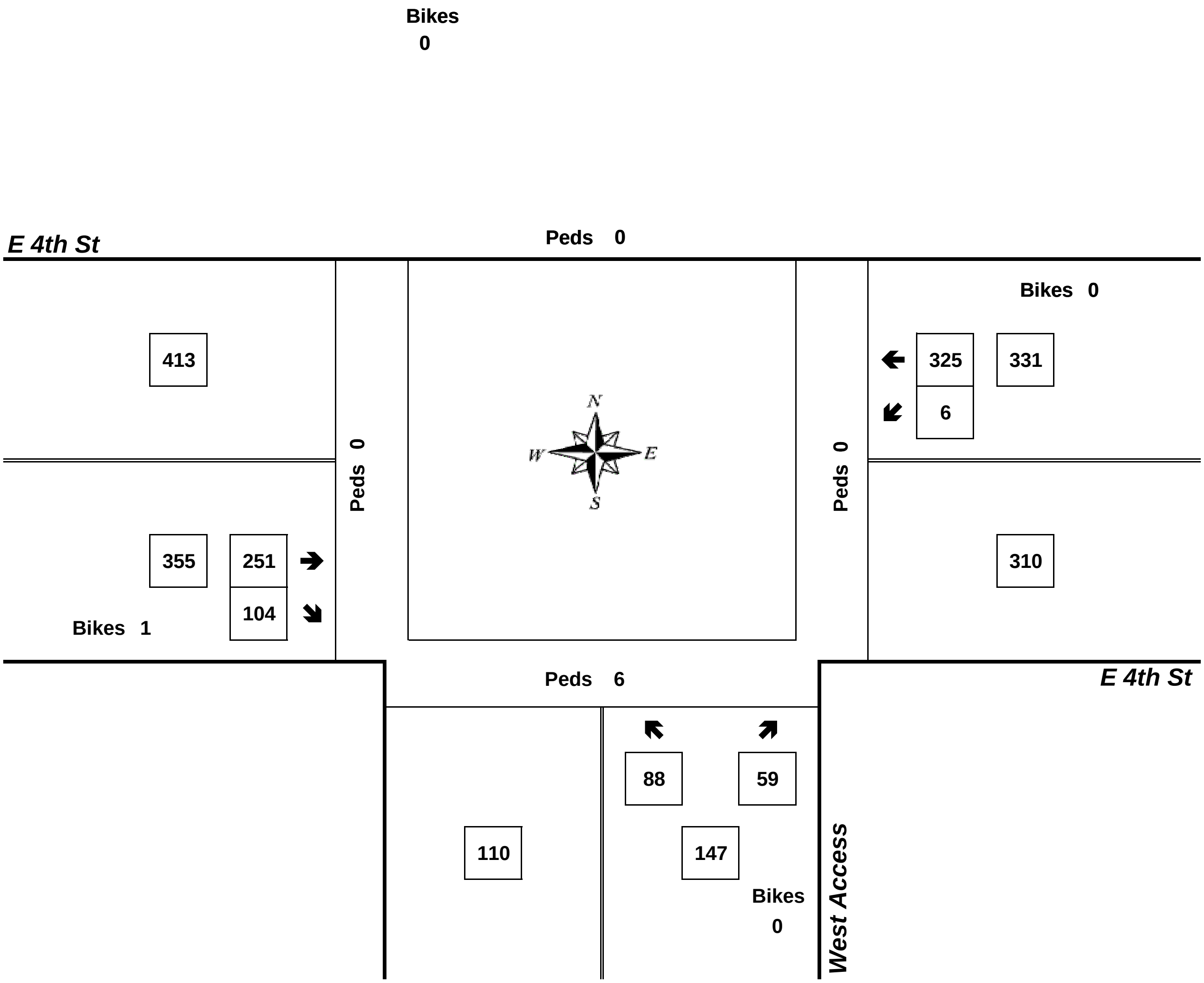
Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		1	1				0		25	0	25	0	7		7	33
7:15 AM	0		2	2				0		18	0	18	0	19		19	39
7:30 AM	0		1	1				0		16	1	17	0	24		24	42
7:45 AM	1		1	2				0		16	1	17	0	24		24	43
8:00 AM	2		1	3				0		10	1	11	0	24		24	38

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

West Access & E 4th St

7:30 AM to 8:30 AM
Thursday, September 13, 2018

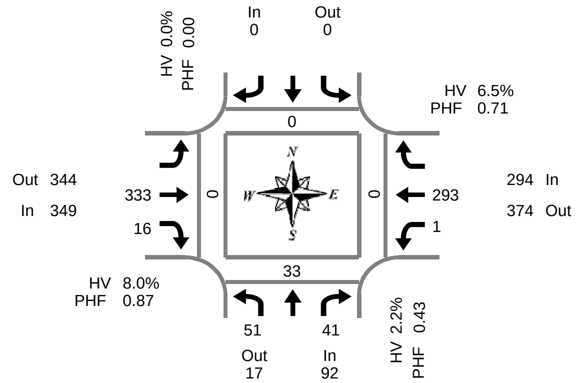


Approach	PHF	HV%	Volume
EB	0.70	4.8%	355
WB	0.95	7.3%	331
NB	0.57	0.7%	147
SB	0.00	0.0%	0
Intersection	0.81	5.0%	833

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
_2:30 PM to 3:30 PM_

West Access & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval	Pedestrians Crosswalk			
Time	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	Total	North	South	East	West
2:00 PM	2		3	0				0		48	2	0	1	41		0	97	0	3	0	0
2:15 PM	4		3	0				0		70	6	0	1	52		0	136	0	0	0	0
2:30 PM	3		4	0				0		96	4	0	1	45		0	153	0	2	0	0
2:45 PM	11		6	0				0		78	9	0	0	104		0	208	0	10	0	0
3:00 PM	30		23	0				0		80	2	0	0	85		0	220	0	9	0	0
3:15 PM	7		8	0				0		79	1	0	0	59		0	154	0	12	0	0
3:30 PM	8		6	0				0		73	4	0	0	58		0	149	0	3	0	0
3:45 PM	8		7	1				0		69	4	0	3	58		0	149	0	6	0	0
Total Survey	73		60	1				0		593	32	0	6	502		0	1,266	0	45	0	0

Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	92	17	109	0	0	0	0	0	349	344	693	0	294	374	668	0	735	0	33	0	0
%HV	2.2%				0.0%				8.0%				6.5%				6.7%				
PHF	0.43				0.00				0.87				0.71				0.84				

By Movement	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	51		41	92				0		333	16	349	1	293		294	735
%HV	3.9%	NA	0.0%	2.2%	NA	NA	NA	0.0%	NA	7.8%	12.5%	8.0%	0.0%	6.5%	NA	6.5%	6.7%
PHF	0.43		0.45	0.43				0.00		0.87	0.44	0.87	0.25	0.70		0.71	0.84

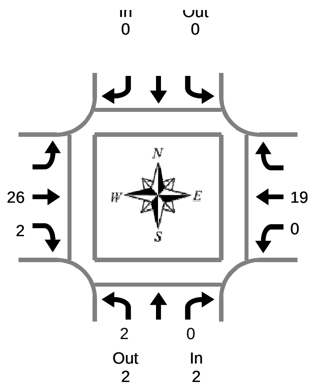
Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval	Pedestrians Crosswalk			
Time	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	Total	North	South	East	West
2:00 PM	20		16	0				0		292	21	0	3	242		0	594	0	15	0	0
2:15 PM	48		36	0				0		324	21	0	2	286		0	717	0	21	0	0
2:30 PM	51		41	0				0		333	16	0	1	293		0	735	0	33	0	0
2:45 PM	56		43	0				0		310	16	0	0	306		0	731	0	34	0	0
3:00 PM	53		44	1				0		301	11	0	3	260		0	672	0	30	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

West Access & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound West Access L		R	Total	Southbound West Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Interval Total
2:00 PM	0		0	0				0		1	0	1	0	2		2	3
2:15 PM	0		0	0				0		2	0	2	0	3		3	5
2:30 PM	0		0	0				0		18	2	20	0	3		3	23
2:45 PM	0		0	0				0		3	0	3	0	4		4	7
3:00 PM	2		0	2				0		3	0	3	0	8		8	13
3:15 PM	0		0	0				0		2	0	2	0	4		4	6
3:30 PM	0		0	0				0		3	0	3	0	1		1	4
3:45 PM	0		0	0				0		2	0	2	0	7		7	9
Total Survey	2		0	2				0		34	2	36	0	32		32	70

Heavy Vehicle Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound West Access In	Out	Total	Southbound West Access In	Out	Total	Eastbound E 4th St In	Out	Total	Westbound E 4th St In	Out	Total	Total
Volume	2	2	4	0	0	0	28	21	49	19	26	45	49
PHF	0.25			0.00			0.27			0.30			0.28

By Movement	Northbound West Access L		R	Total	Southbound West Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Total
Volume	2		0	2				0		26	2	28	0	19		19	49
PHF	0.25		0.00	0.25				0.00		0.27	0.25	0.27	0.00	0.30		0.30	0.28

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

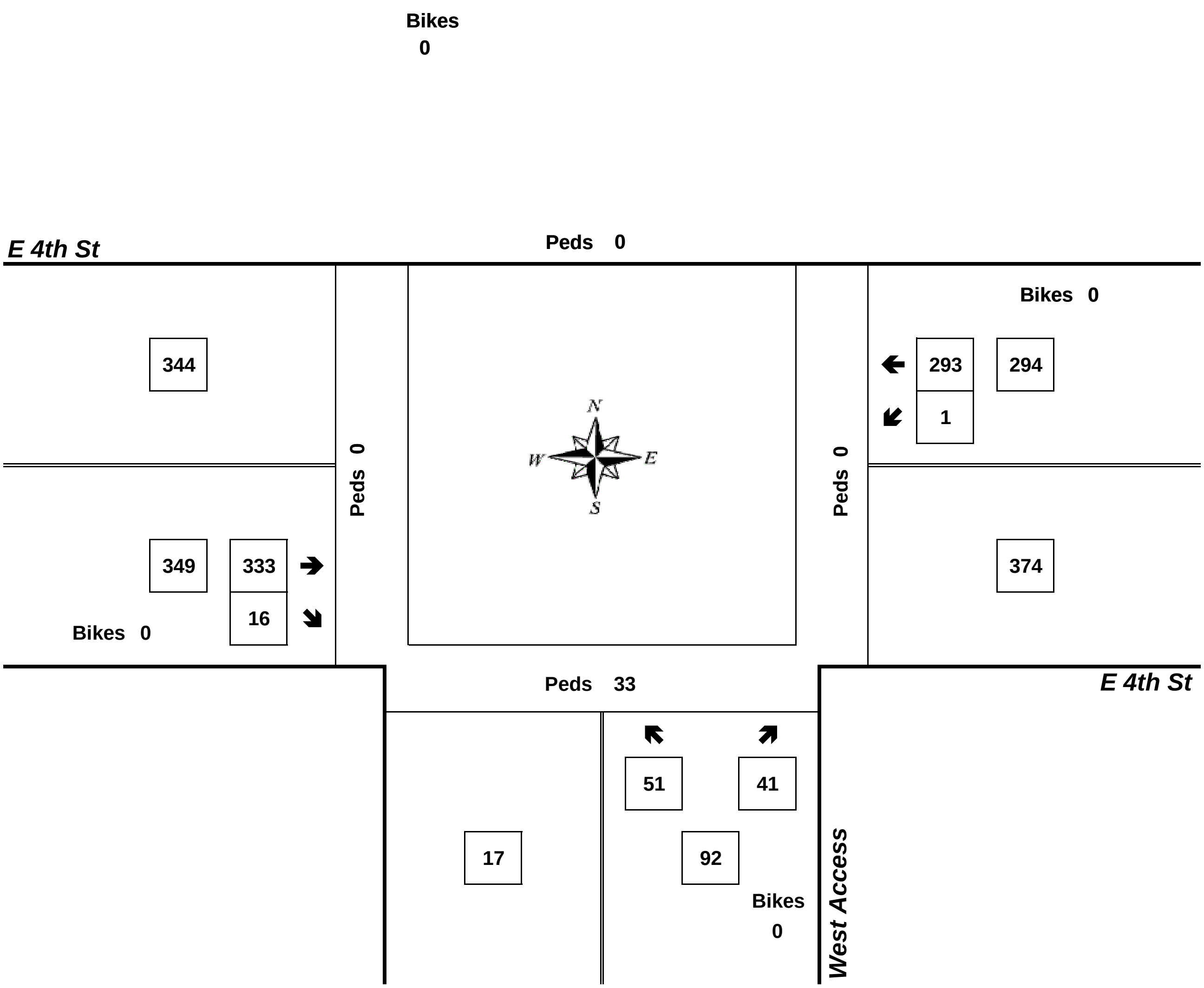
Interval Start Time	Northbound West Access L		R	Total	Southbound West Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Interval Total
2:00 PM	0		0	0				0		24	2	26	0	12		12	38
2:15 PM	2		0	2				0		26	2	28	0	18		18	48
2:30 PM	2		0	2				0		26	2	28	0	19		19	49
2:45 PM	2		0	2				0		11	0	11	0	17		17	30
3:00 PM	2		0	2				0		10	0	10	0	20		20	32

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

West Access & E 4th St

2:30 PM to 3:30 PM
Thursday, September 13, 2018

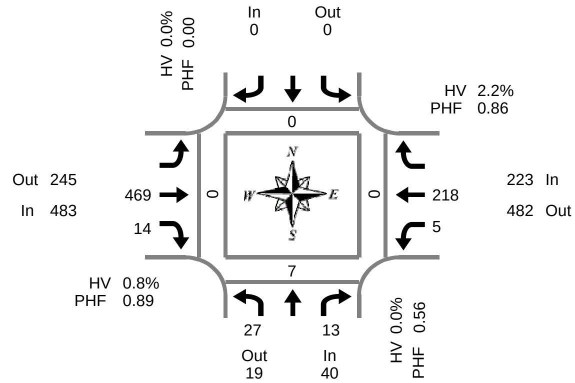


Approach	PHF	HV%	Volume
EB	0.87	8.0%	349
WB	0.71	6.5%	294
NB	0.43	2.2%	92
SB	0.00	0.0%	0
Intersection	0.84	6.7%	735

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



West Access & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
4:45 PM to 5:45 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	10		4	0				0		77	6	0	0	66		0	163	0	23	0	0
4:15 PM	19		6	0				0		105	2	0	1	64		0	197	0	24	0	0
4:30 PM	15		3	0				0		100	3	0	0	64		0	185	0	36	0	0
4:45 PM	8		2	0				0		117	4	0	3	58		0	192	0	6	0	0
5:00 PM	4		1	0				0		110	2	0	0	49		0	166	0	1	0	0
5:15 PM	4		3	0				0		111	4	0	2	46		0	170	0	0	0	0
5:30 PM	11		7	0				0		131	4	0	0	65		0	218	0	0	0	0
5:45 PM	15		15	0				0		93	3	0	0	61		0	187	0	0	0	0
Total Survey	86		41	0				0		844	28	0	6	473		0	1,478	0	90	0	0

Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	40	19	59	0	0	0	0	0	483	245	728	0	223	482	705	0	746	0	7	0	0
%HV	0.0%				0.0%				0.8%				2.2%				1.2%				
PHF	0.56				0.00				0.89				0.86				0.86				

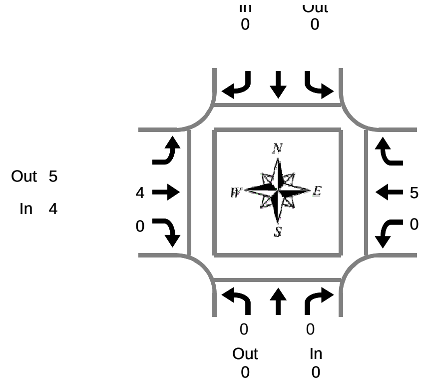
By Movement	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	27		13	40				0		469	14	483	5	218		223	746
%HV	0.0%	NA	0.0%	0.0%	NA	NA	NA	0.0%	NA	0.9%	0.0%	0.8%	0.0%	2.3%	NA	2.2%	1.2%
PHF	0.61		0.46	0.56				0.00		0.90	0.88	0.89	0.42	0.84		0.86	0.86

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	52		15	0				0		399	15	0	4	252		0	737	0	89	0	0
4:15 PM	46		12	0				0		432	11	0	4	235		0	740	0	67	0	0
4:30 PM	31		9	0				0		438	13	0	5	217		0	713	0	43	0	0
4:45 PM	27		13	0				0		469	14	0	5	218		0	746	0	7	0	0
5:00 PM	34		26	0				0		445	13	0	2	221		0	741	0	1	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:45 PM to 5:45 PM

West Access & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	0		0	0				0		1	0	1	0	6		6	7
4:15 PM	0		0	0				0		3	0	3	0	4		4	7
4:30 PM	0		0	0				0		2	0	2	0	2		2	4
4:45 PM	0		0	0				0		2	0	2	0	2		2	4
5:00 PM	0		0	0				0		0	0	0	0	0		0	0
5:15 PM	0		0	0				0		1	0	1	0	2		2	3
5:30 PM	0		0	0				0		1	0	1	0	1		1	2
5:45 PM	0		0	0				0		0	0	0	0	1		1	1
Total Survey	0		0	0				0		10	0	10	0	18		18	28

Heavy Vehicle Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	0	0	0		0	0	0		4	5	9		5	4	9		9
PHF	0.00				0.00				0.14				0.10				0.13

By Movement	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		0	0				0		4	0	4	0	5		5	9
PHF	0.00		0.00	0.00				0.00		0.14	0.00	0.14	0.00	0.10		0.10	0.13

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

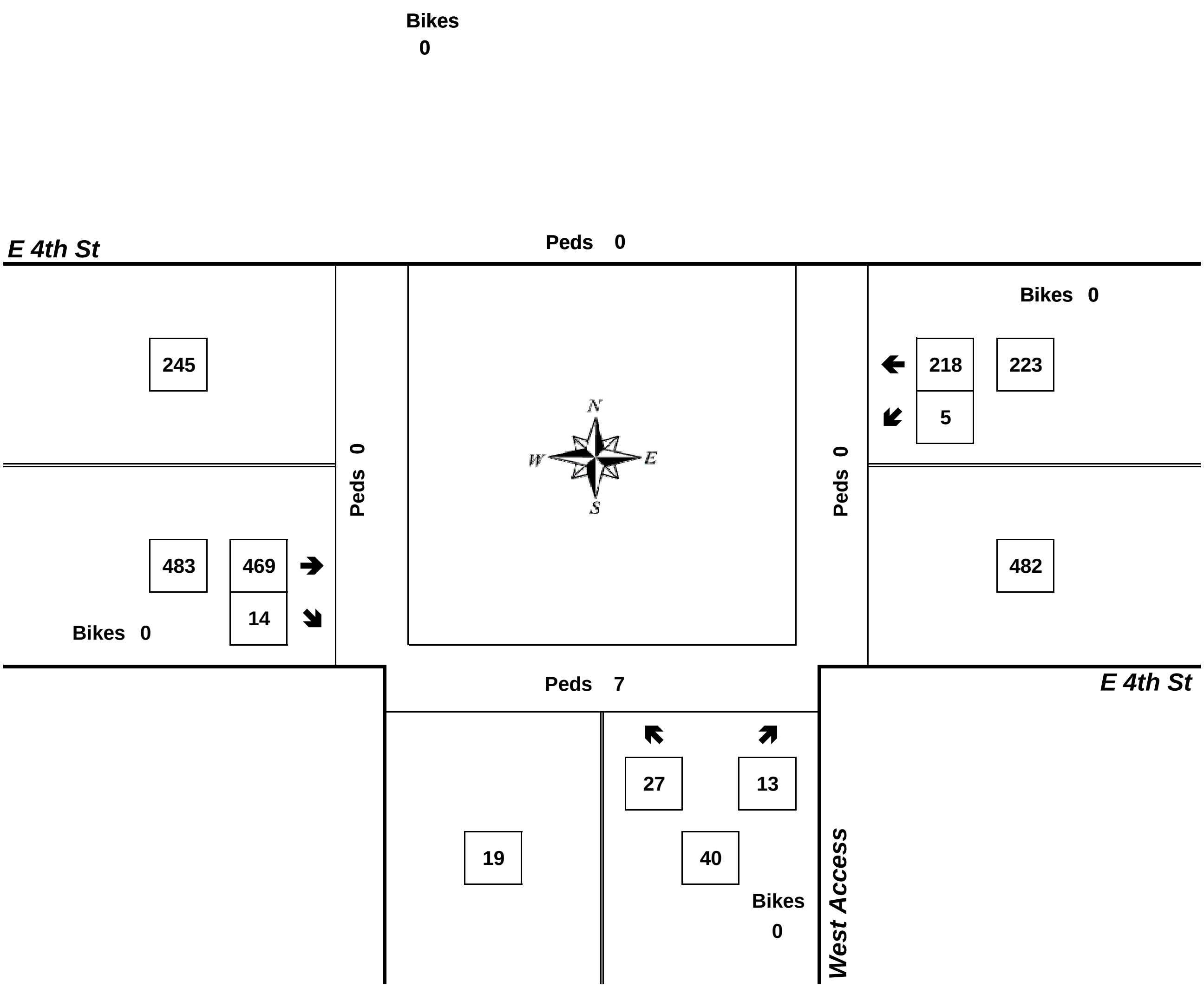
Interval Start Time	Northbound West Access				Southbound West Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	0		0	0				0		8	0	8	0	14		14	22
4:15 PM	0		0	0				0		7	0	7	0	8		8	15
4:30 PM	0		0	0				0		5	0	5	0	6		6	11
4:45 PM	0		0	0				0		4	0	4	0	5		5	9
5:00 PM	0		0	0				0		2	0	2	0	4		4	6

Peak Hour Summary

Clay Carney
(503) 833-2740

West Access & E 4th St

4:45 PM to 5:45 PM
Thursday, September 13, 2018

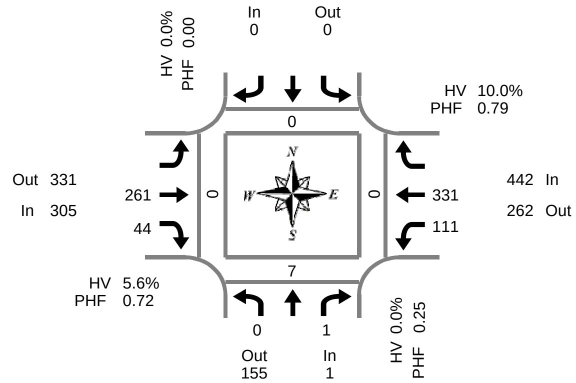


Approach	PHF	HV%	Volume
EB	0.89	0.8%	483
WB	0.86	2.2%	223
NB	0.56	0.0%	40
SB	0.00	0.0%	0
Intersection	0.86	1.2%	746

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

East Access & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval	Northbound				Southbound				Eastbound				Westbound					Pedestrians			
Start	East Access				East Access				E 4th St				E 4th St				Interval	Crosswalk			
Time	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	Total	North	South	East	West
7:00 AM	0		0	0				0		31	2	1	0	76		0	109	0	0	0	0
7:15 AM	0		0	0				0		46	5	0	5	74		0	130	0	3	0	0
7:30 AM	0		1	0				0		39	6	0	6	83		0	135	0	3	0	0
7:45 AM	0		0	0				0		74	22	0	28	74		0	198	0	3	0	0
8:00 AM	0		0	0				0		93	13	0	57	83		0	246	0	0	0	0
8:15 AM	0		0	0				0		55	3	0	20	91		0	169	0	1	0	0
8:30 AM	0		0	0				0		32	3	0	5	52		0	92	0	3	0	0
8:45 AM	0		0	0				0		39	2	0	3	50		0	94	0	3	0	0
Total Survey	0		1	0				0		409	56	1	124	583		0	1,173	0	16	0	0

Peak Hour Summary
7:30 AM to 8:30 AM

By	Northbound				Southbound				Eastbound				Westbound					Pedestrians			
Approach	East Access				East Access				E 4th St				E 4th St				Total	Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1	155	156	0	0	0	0	0	305	331	636	0	442	262	704	0	748	0	7	0	0
%HV	0.0%				0.0%				5.6%				10.0%				8.2%				
PHF	0.25				0.00				0.72				0.79				0.76				

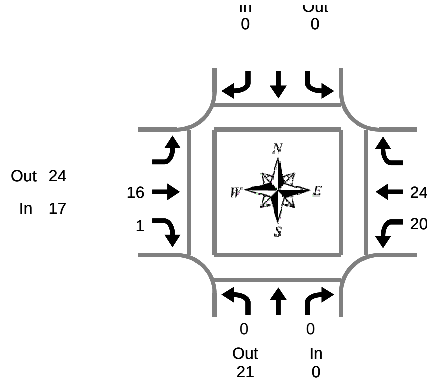
By	Northbound				Southbound				Eastbound				Westbound				
Movement	East Access				East Access				E 4th St				E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		1	1				0		261	44	305	111	331		442	748
%HV	0.0%	NA	0.0%	0.0%	NA	NA	NA	0.0%	NA	6.1%	2.3%	5.6%	18.0%	7.3%	NA	10.0%	8.2%
PHF	0.00		0.25	0.25				0.00		0.70	0.50	0.72	0.49	0.91		0.79	0.76

Rolling Hour Summary
7:00 AM to 9:00 AM

Interval	Northbound				Southbound				Eastbound				Westbound					Pedestrians			
Start	East Access				East Access				E 4th St				E 4th St				Interval	Crosswalk			
Time	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	Total	North	South	East	West
7:00 AM	0		1	0				0		190	35	1	39	307		0	572	0	9	0	0
7:15 AM	0		1	0				0		252	46	0	96	314		0	709	0	9	0	0
7:30 AM	0		1	0				0		261	44	0	111	331		0	748	0	7	0	0
7:45 AM	0		0	0				0		254	41	0	110	300		0	705	0	7	0	0
8:00 AM	0		0	0				0		219	21	0	85	276		0	601	0	7	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

East Access & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		0	0				0		9	0	9	0	2		2	11
7:15 AM	0		0	0				0		7	0	7	0	0		0	7
7:30 AM	0		0	0				0		1	1	2	1	1		2	4
7:45 AM	0		0	0				0		6	0	6	3	4		7	13
8:00 AM	0		0	0				0		6	0	6	15	14		29	35
8:15 AM	0		0	0				0		3	0	3	1	5		6	9
8:30 AM	0		0	0				0		3	0	3	0	1		1	4
8:45 AM	0		0	0				0		1	0	1	1	3		4	5
Total Survey	0		0	0				0		36	1	37	21	30		51	88

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound East Access			Southbound East Access			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	21	21	0	0	0	17	24	41	44	16	60	61
PHF	0.00			0.00			0.24			0.26			0.27

By Movement	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		0	0				0		16	1	17	20	24		44	61
PHF	0.00		0.00	0.00				0.00		0.24	0.25	0.24	0.26	0.26		0.26	0.27

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		0	0				0		23	1	24	4	7		11	35
7:15 AM	0		0	0				0		20	1	21	19	19		38	59
7:30 AM	0		0	0				0		16	1	17	20	24		44	61
7:45 AM	0		0	0				0		18	0	18	19	24		43	61
8:00 AM	0		0	0				0		13	0	13	17	23		40	53

Peak Hour Summary

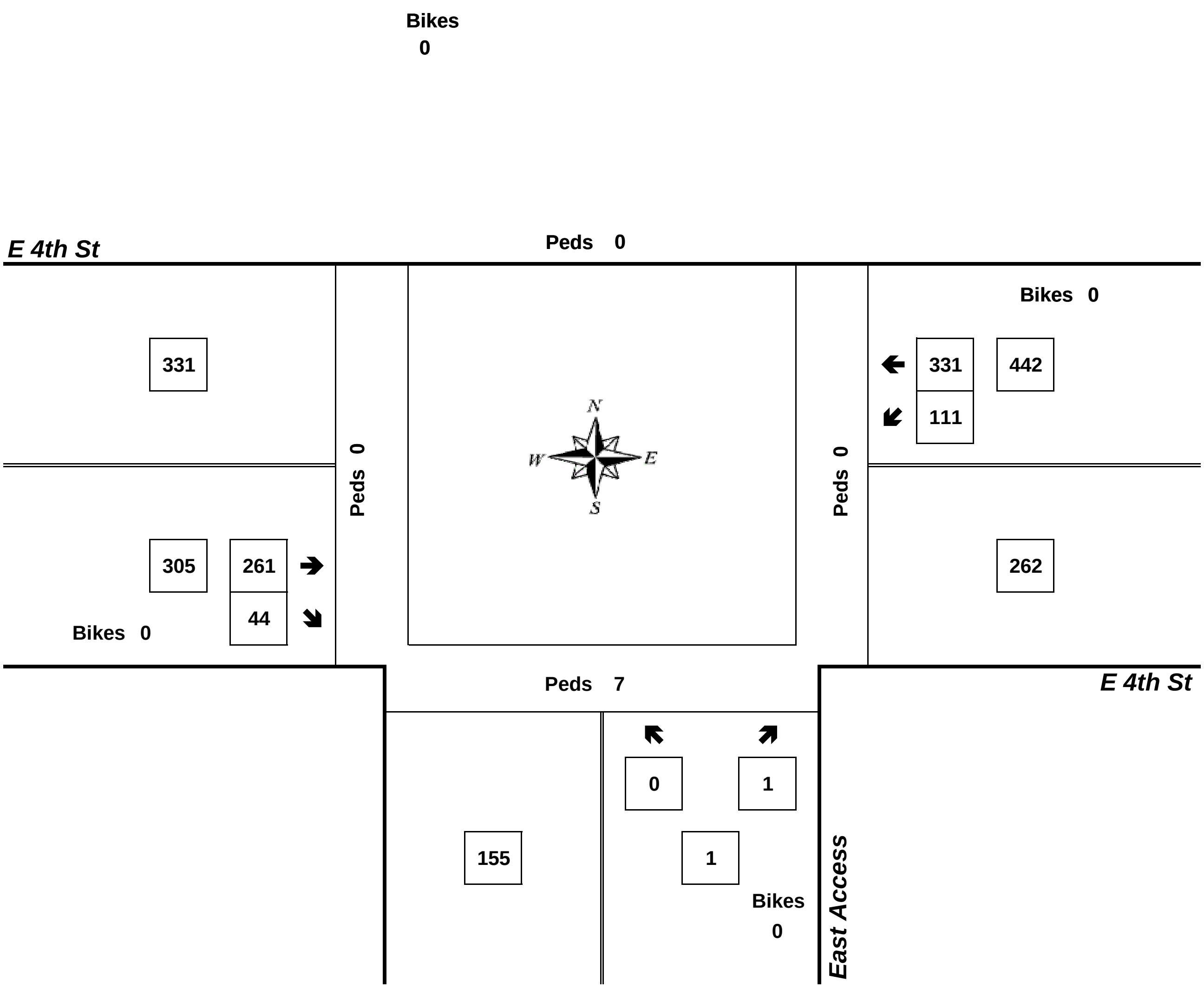
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

East Access & E 4th St

7:30 AM to 8:30 AM

Thursday, September 13, 2018

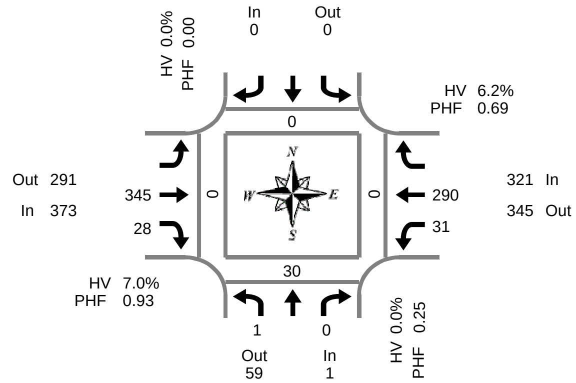


Approach	PHF	HV%	Volume
EB	0.72	5.6%	305
WB	0.79	10.0%	442
NB	0.25	0.0%	1
SB	0.00	0.0%	0
Intersection	0.76	8.2%	748

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

East Access & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound East Access L		R	Bikes	Southbound East Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
2:00 PM	0		0	0				0		52	0	0	4	37		0	93	0	3	0	0
2:15 PM	0		0	0				0		72	3	0	4	55		0	134	0	0	0	0
2:30 PM	0		0	0				0		85	10	0	3	47		0	145	0	2	0	0
2:45 PM	0		0	0				0		76	12	0	15	101		0	204	0	11	0	0
3:00 PM	0		0	0				0		96	4	0	10	84		0	194	0	8	0	0
3:15 PM	1		0	0				0		88	2	0	3	58		0	152	0	9	0	0
3:30 PM	0		0	0				0		78	1	0	2	58		0	139	0	1	0	0
3:45 PM	0		1	0				0		73	0	0	1	57		0	132	0	6	0	0
Total Survey	1		1	0				0		620	32	0	42	497		0	1,193	0	40	0	0

Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound East Access In	Out	Total	Bikes	Southbound East Access In	Out	Total	Bikes	Eastbound E 4th St In	Out	Total	Bikes	Westbound E 4th St In	Out	Total	Bikes	Total
Volume	1	59	60	0	0	0	0	0	373	291	664	0	321	345	666	0	695
%HV	0.0%				0.0%				7.0%				6.2%				6.6%
PHF	0.25				0.00				0.93				0.69				0.85

Pedestrians Crosswalk North	South	East	West
0	30	0	0

By Movement	Northbound East Access L		R	Total	Southbound East Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Total
Volume	1		0	1				0		345	28	373	31	290		321	695
%HV	0.0%	NA	0.0%	0.0%	NA	NA	NA	0.0%	NA	3.5%	50.0%	7.0%	9.7%	5.9%	NA	6.2%	6.6%
PHF	0.25		0.00	0.25				0.00		0.90	0.58	0.93	0.52	0.72		0.69	0.85

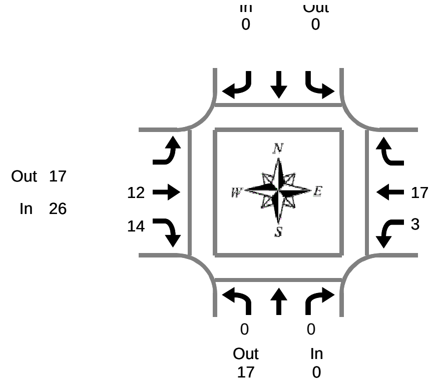
Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound East Access L		R	Bikes	Southbound East Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
2:00 PM	0		0	0				0		285	25	0	26	240		0	576	0	16	0	0
2:15 PM	0		0	0				0		329	29	0	32	287		0	677	0	21	0	0
2:30 PM	1		0	0				0		345	28	0	31	290		0	695	0	30	0	0
2:45 PM	1		0	0				0		338	19	0	30	301		0	689	0	29	0	0
3:00 PM	1		1	0				0		335	7	0	16	257		0	617	0	24	0	0

Heavy Vehicle Summary

All Traffic Data
1010110
Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

East Access & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
2:00 PM	0		0	0				0		2	0	2	0	3		3	5
2:15 PM	0		0	0				0		2	0	2	0	2		2	4
2:30 PM	0		0	0				0		6	8	14	0	3		3	17
2:45 PM	0		0	0				0		1	6	7	3	3		6	13
3:00 PM	0		0	0				0		3	0	3	0	8		8	11
3:15 PM	0		0	0				0		2	0	2	0	3		3	5
3:30 PM	0		0	0				0		3	0	3	0	2		2	5
3:45 PM	0		0	0				0		1	0	1	0	7		7	8
Total Survey	0		0	0				0		20	14	34	3	31		34	68

Heavy Vehicle Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound East Access			Southbound East Access			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	17	17	0	0	0	26	17	43	20	12	32	46
PHF	0.00			0.00			0.27			0.29			0.28

By Movement	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		0	0				0		12	14	26	3	17		20	46
PHF	0.00		0.00	0.00				0.00		0.30	0.25	0.27	0.25	0.30		0.29	0.28

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
2:00 PM	0		0	0				0		11	14	25	3	11		14	39
2:15 PM	0		0	0				0		12	14	26	3	16		19	45
2:30 PM	0		0	0				0		12	14	26	3	17		20	46
2:45 PM	0		0	0				0		9	6	15	3	16		19	34
3:00 PM	0		0	0				0		9	0	9	0	20		20	29

Peak Hour Summary

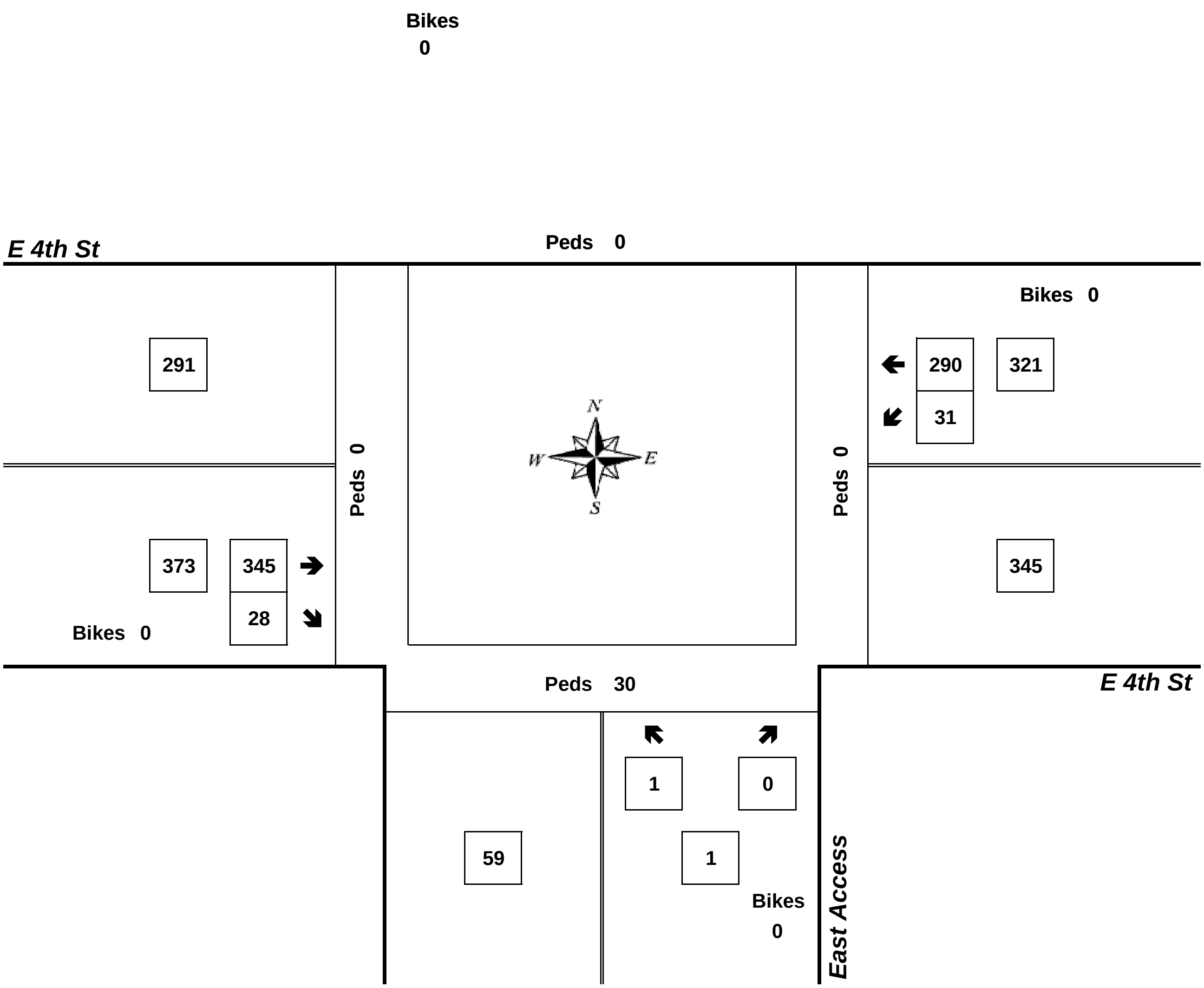
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

East Access & E 4th St

2:30 PM to 3:30 PM

Thursday, September 13, 2018

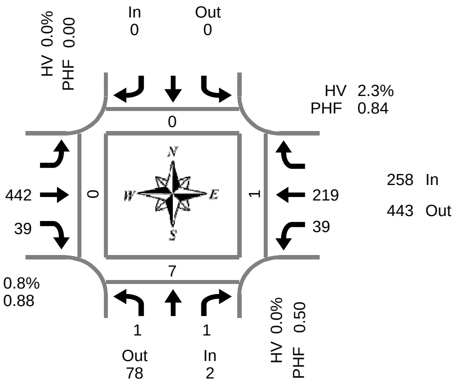


Approach	PHF	HV%	Volume
EB	0.93	7.0%	373
WB	0.69	6.2%	321
NB	0.25	0.0%	1
SB	0.00	0.0%	0
Intersection	0.85	6.6%	695

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:45 PM to 5:45 PM

East Access & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound East Access L		R	Bikes	Southbound East Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
4:00 PM	0		1	0				0		76	2	0	5	67		0	151	0	20	0	0
4:15 PM	0		2	0				0		105	5	0	6	67		1	185	0	24	0	0
4:30 PM	0		1	0				0		98	4	0	2	64		1	169	0	37	0	0
4:45 PM	0		1	0				0		122	1	0	2	62		0	188	0	6	0	0
5:00 PM	0		0	0				0		105	1	0	5	48		0	159	0	1	0	0
5:15 PM	1		0	0				0		98	18	0	16	48		0	181	0	0	0	0
5:30 PM	0		0	0				0		117	19	0	16	61		0	213	0	0	1	0
5:45 PM	0		0	0				0		104	8	0	7	65		0	184	0	0	0	0
Total Survey	1		5	0				0		825	58	0	59	482		2	1,430	0	88	1	0

Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound East Access In	Out	Total	Bikes	Southbound East Access In	Out	Total	Bikes	Eastbound E 4th St In	Out	Total	Bikes	Westbound E 4th St In	Out	Total	Bikes	Total	Pedestrians Crosswalk North	South	East	West
Volume	2	78	80	0	0	0	0	0	481	220	701	0	258	443	701	0	741	0	7	1	0
%HV	0.0%				0.0%				0.8%				2.3%				1.3%				
PHF	0.50				0.00				0.88				0.84				0.87				

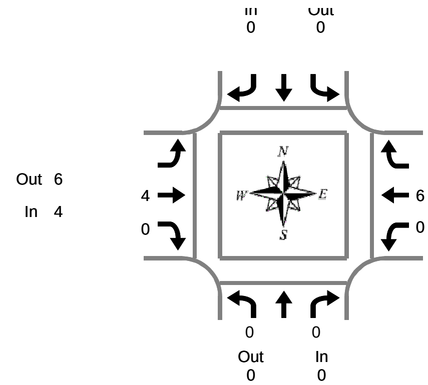
By Movement	Northbound East Access L		R	Total	Southbound East Access			Total	Eastbound E 4th St	T	R	Total	Westbound E 4th St L	T		Total	Total
Volume	1		1	2				0		442	39	481	39	219		258	741
%HV	0.0%	NA	0.0%	0.0%	NA	NA	NA	0.0%	NA	0.9%	0.0%	0.8%	0.0%	2.7%	NA	2.3%	1.3%
PHF	0.25		0.25	0.50				0.00		0.91	0.51	0.88	0.61	0.88		0.84	0.87

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound East Access L		R	Bikes	Southbound East Access			Bikes	Eastbound E 4th St	T	R	Bikes	Westbound E 4th St L	T		Bikes	Interval Total	Pedestrians Crosswalk North	South	East	West
4:00 PM	0		5	0				0		401	12	0	15	260		2	693	0	87	0	0
4:15 PM	0		4	0				0		430	11	0	15	241		2	701	0	68	0	0
4:30 PM	1		2	0				0		423	24	0	25	222		1	697	0	44	0	0
4:45 PM	1		1	0				0		442	39	0	39	219		0	741	0	7	1	0
5:00 PM	1		0	0				0		424	46	0	44	222		0	737	0	1	1	0

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:45 PM to 5:45 PM

East Access & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	0		0	0				0		2	0	2	0	6		6	8
4:15 PM	0		0	0				0		2	0	2	0	4		4	6
4:30 PM	0		0	0				0		1	0	1	0	2		2	3
4:45 PM	0		0	0				0		2	0	2	0	3		3	5
5:00 PM	0		0	0				0		0	0	0	0	0		0	0
5:15 PM	0		0	0				0		1	0	1	0	2		2	3
5:30 PM	0		0	0				0		1	0	1	0	1		1	2
5:45 PM	0		0	0				0		2	0	2	0	1		1	3
Total Survey	0		0	0				0		11	0	11	0	19		19	30

Heavy Vehicle Peak Hour Summary
4:45 PM to 5:45 PM

By Approach	Northbound East Access			Southbound East Access			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	4	6	10	6	4	10	10
PHF	0.00			0.00			0.20			0.13			0.15

By Movement	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	0		0	0				0		4	0	4	0	6		6	10
PHF	0.00		0.00	0.00				0.00		0.20	0.00	0.20	0.00	0.13		0.13	0.15

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound East Access				Southbound East Access				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	0		0	0				0		7	0	7	0	15		15	22
4:15 PM	0		0	0				0		5	0	5	0	9		9	14
4:30 PM	0		0	0				0		4	0	4	0	7		7	11
4:45 PM	0		0	0				0		4	0	4	0	6		6	10
5:00 PM	0		0	0				0		4	0	4	0	4		4	8

Peak Hour Summary

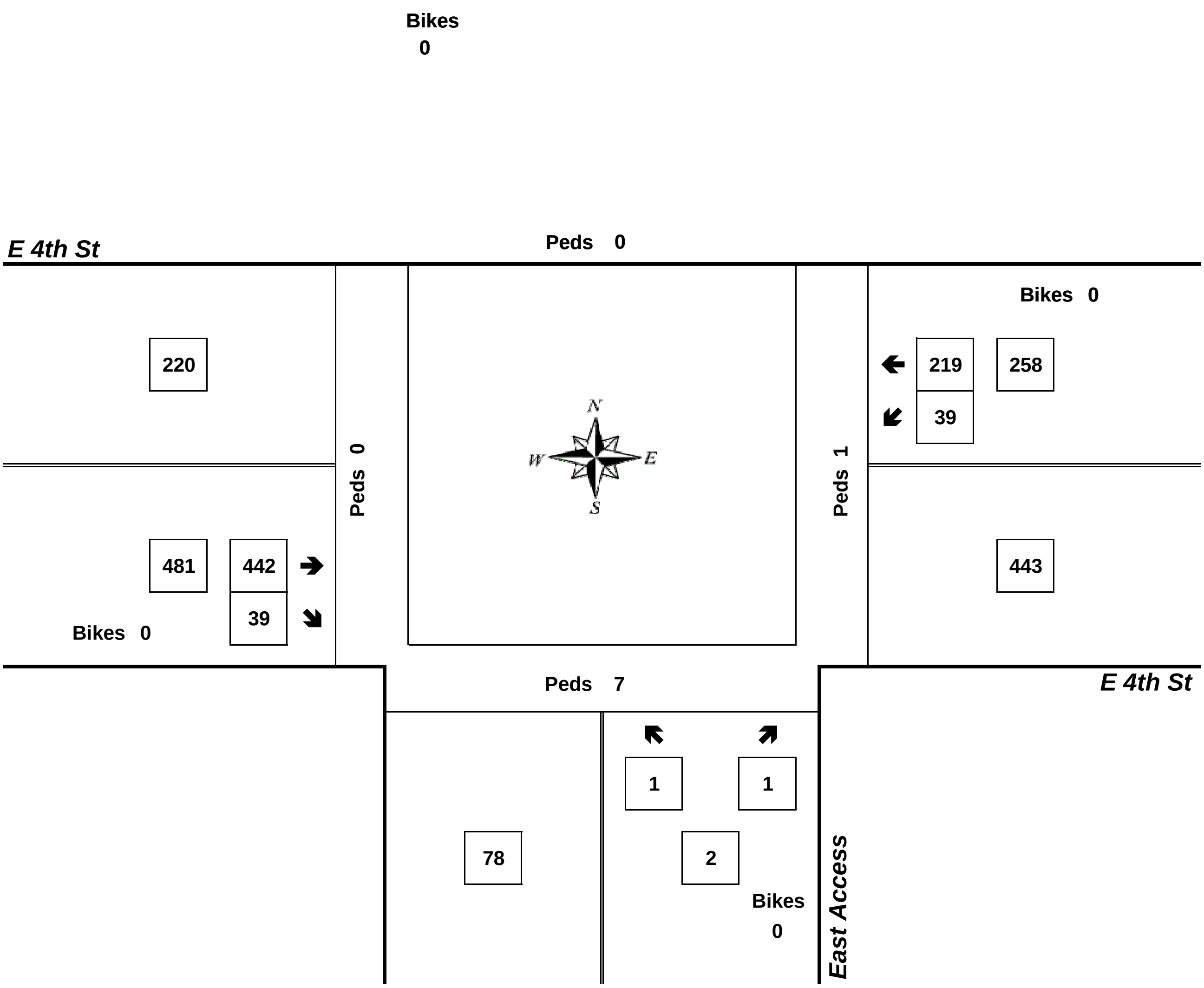
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

East Access & E 4th St

4:45 PM to 5:45 PM

Thursday, September 13, 2018

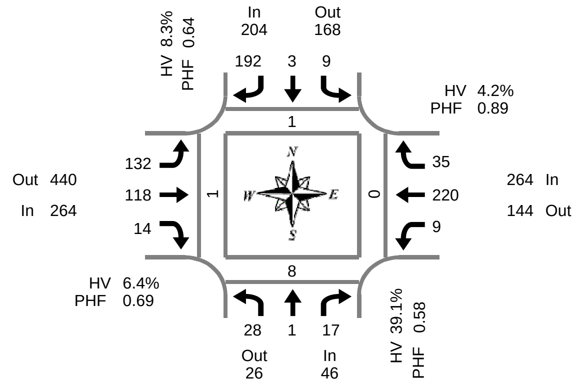


Approach	PHF	HV%	Volume
EB	0.88	0.8%	481
WB	0.84	2.3%	258
NB	0.50	0.0%	2
SB	0.00	0.0%	0
Intersection	0.87	1.3%	741

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

E Ivy St & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	33	0	8	21	2	1	0	45	0	0	109	0	0	0	0
7:15 AM	1	1	0	0	1	0	27	0	21	23	0	0	1	48	4	0	127	0	4	0	0
7:30 AM	0	0	0	0	0	0	36	0	23	20	0	0	0	55	2	0	136	0	2	0	1
7:45 AM	2	1	3	0	1	0	47	0	41	23	2	0	3	52	12	0	187	0	4	0	0
8:00 AM	13	0	7	0	8	3	69	0	51	36	9	0	4	53	17	0	270	1	2	0	0
8:15 AM	13	0	7	0	0	0	40	0	17	39	3	0	2	60	4	0	185	0	0	0	0
8:30 AM	3	0	2	0	1	0	23	0	10	20	2	0	0	32	2	0	95	0	3	0	0
8:45 AM	1	1	1	0	0	0	18	0	12	27	0	0	1	34	0	0	95	0	0	0	0
Total Survey	33	3	20	0	11	3	293	0	183	209	18	1	11	379	41	0	1,204	1	15	0	1

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	46	26	72	0	204	168	372	0	264	440	704	0	264	144	408	0	778	1	8	0	1
%HV	39.1%				8.3%				6.4%				4.2%				8.1%				
PHF	0.58				0.64				0.69				0.89				0.72				

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	28	1	17	46	9	3	192	204	132	118	14	264	9	220	35	264	778
%HV	60.7%	0.0%	5.9%	39.1%	11.1%	0.0%	8.3%	8.3%	6.1%	7.6%	0.0%	6.4%	0.0%	3.6%	8.6%	4.2%	8.1%
PHF	0.54	0.25	0.61	0.58	0.28	0.25	0.70	0.64	0.65	0.76	0.39	0.69	0.56	0.92	0.51	0.89	0.72

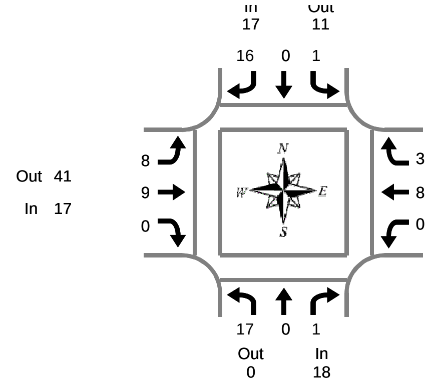
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	3	2	3	0	2	0	143	0	93	87	4	1	4	200	18	0	559	0	10	0	1
7:15 AM	16	2	10	0	10	3	179	0	136	102	11	0	8	208	35	0	720	1	12	0	1
7:30 AM	28	1	17	0	9	3	192	0	132	118	14	0	9	220	35	0	778	1	8	0	1
7:45 AM	31	1	19	0	10	3	179	0	119	118	16	0	9	197	35	0	737	1	9	0	0
8:00 AM	30	1	17	0	9	3	150	0	90	122	14	0	7	179	23	0	645	1	5	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

E Ivy St & E 4th St

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	1	1	1	8	0	9	0	1	0	1	11
7:15 AM	0	0	0	0	0	0	0	0	1	6	0	7	0	0	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
7:45 AM	0	0	1	1	0	0	2	2	3	2	0	5	0	4	0	4	12
8:00 AM	12	0	0	12	1	0	14	15	4	3	0	7	0	2	2	4	38
8:15 AM	5	0	0	5	0	0	0	0	1	3	0	4	0	1	1	2	11
8:30 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	2	0	2	5
8:45 AM	0	0	0	0	0	0	1	1	0	1	0	1	0	4	0	4	6
Total Survey	17	0	1	18	1	0	18	19	11	26	0	37	0	15	3	18	92

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound E Ivy St			Southbound E Ivy St			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	18	0	18	17	11	28	17	41	58	11	11	22	63
PHF	0.25			0.25			0.25			0.28			0.26

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	17	0	1	18	1	0	16	17	8	9	0	17	0	8	3	11	63
PHF	0.25	0.00	0.25	0.25	0.25	0.00	0.25	0.25	0.25	0.15	0.00	0.25	0.00	0.29	0.25	0.28	0.26

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	1	1	0	0	3	3	5	17	0	22	0	6	0	6	32
7:15 AM	12	0	1	13	1	0	16	17	8	12	0	20	0	7	2	9	59
7:30 AM	17	0	1	18	1	0	16	17	8	9	0	17	0	8	3	11	63
7:45 AM	17	0	1	18	1	0	16	17	9	10	0	19	0	9	3	12	66
8:00 AM	17	0	0	17	1	0	15	16	6	9	0	15	0	9	3	12	60

Peak Hour Summary

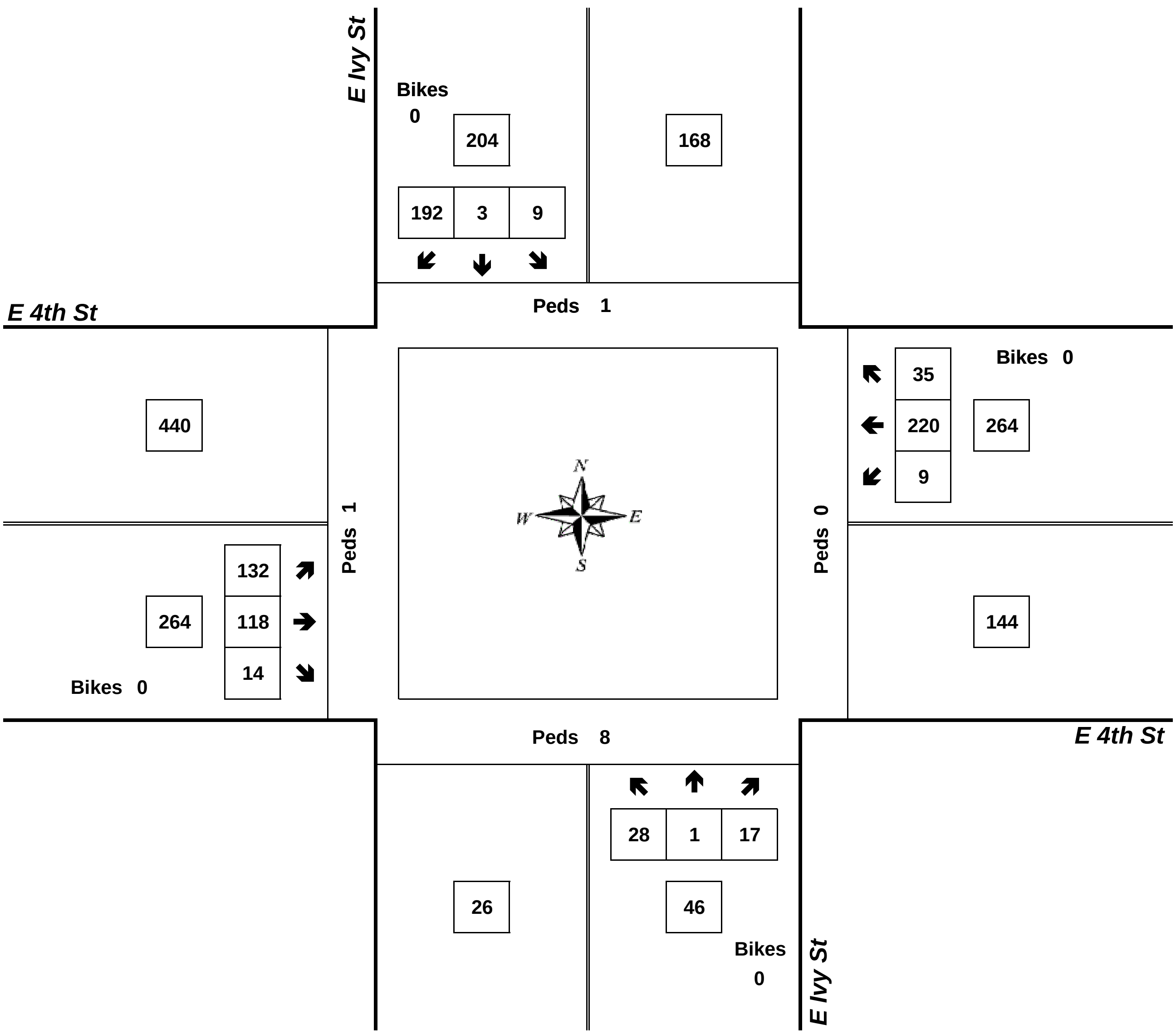
All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

E Ivy St & E 4th St

7:30 AM to 8:30 AM

Thursday, September 13, 2018



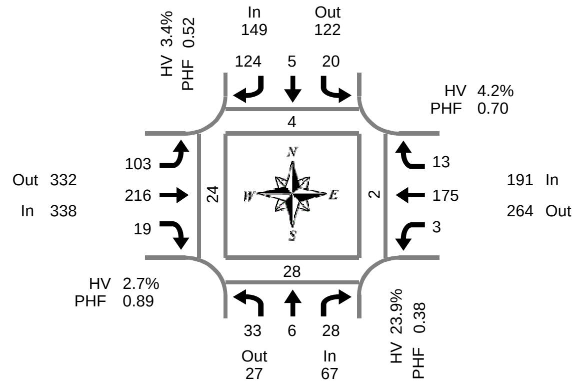
Approach	PHF	HV%	Volume
EB	0.69	6.4%	264
WB	0.89	4.2%	264
NB	0.58	39.1%	46
SB	0.64	8.3%	204
Intersection	0.72	8.1%	778

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:45 PM to 3:45 PM

E Ivy St & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
2:00 PM	1	0	0	0	1	0	21	0	16	29	3	0	0	17	0	0	88	0	2	0	0
2:15 PM	0	0	0	0	0	1	19	0	23	35	13	0	1	39	0	0	131	0	0	0	0
2:30 PM	0	0	0	0	0	0	21	0	38	35	10	0	4	32	6	0	146	0	2	0	0
2:45 PM	2	1	3	0	16	4	52	0	24	44	12	0	3	59	6	0	226	0	12	0	7
3:00 PM	21	4	19	0	0	1	29	0	30	62	3	0	0	43	1	0	213	2	11	0	12
3:15 PM	5	0	4	0	3	0	25	0	28	54	2	0	0	34	2	0	157	2	3	2	5
3:30 PM	5	1	2	0	1	0	18	0	21	56	2	0	0	39	4	0	149	0	2	0	0
3:45 PM	2	0	0	0	6	0	22	0	35	43	0	0	1	31	5	0	145	0	8	0	2
Total Survey	36	6	28	0	27	6	207	0	215	358	45	0	9	294	24	0	1,255	4	40	2	26

Peak Hour Summary
2:45 PM to 3:45 PM

By Approach	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	67	27	94	0	149	122	271	0	338	332	670	0	191	264	455	0	745	4	28	2	24
%HV	23.9%				3.4%				2.7%				4.2%				5.1%				
PHF	0.38				0.52				0.89				0.70				0.82				

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	33	6	28	67	20	5	124	149	103	216	19	338	3	175	13	191	745
%HV	21.2%	33.3%	25.0%	23.9%	0.0%	0.0%	4.0%	3.4%	1.9%	2.8%	5.3%	2.7%	0.0%	4.0%	7.7%	4.2%	5.1%
PHF	0.39	0.38	0.37	0.38	0.31	0.31	0.60	0.52	0.86	0.87	0.40	0.89	0.25	0.74	0.54	0.70	0.82

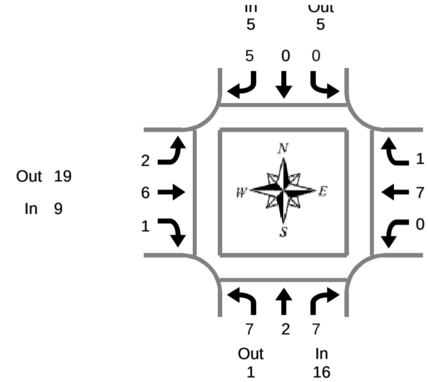
Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
2:00 PM	3	1	3	0	17	5	113	0	101	143	38	0	8	147	12	0	591	0	16	0	7
2:15 PM	23	5	22	0	16	6	121	0	115	176	38	0	8	173	13	0	716	2	25	0	19
2:30 PM	28	5	26	0	19	5	127	0	120	195	27	0	7	168	15	0	742	4	28	2	24
2:45 PM	33	6	28	0	20	5	124	0	103	216	19	0	3	175	13	0	745	4	28	2	24
3:00 PM	33	5	25	0	10	1	94	0	114	215	7	0	1	147	12	0	664	4	24	2	19

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:45 PM to 3:45 PM

E Ivy St & E 4th St

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
2:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4
2:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	2	0	2	5
2:30 PM	0	0	0	0	0	0	0	0	4	2	0	6	0	3	0	3	9
2:45 PM	0	0	0	0	0	0	3	3	0	1	0	1	0	3	0	3	7
3:00 PM	5	2	6	13	0	0	0	0	1	0	1	2	0	1	0	1	16
3:15 PM	2	0	1	3	0	0	2	2	0	3	0	3	0	1	1	2	10
3:30 PM	0	0	0	0	0	0	0	0	1	2	0	3	0	2	0	2	5
3:45 PM	0	0	0	0	0	0	3	3	0	1	0	1	0	4	0	4	8
Total Survey	7	2	7	16	0	0	9	9	6	13	1	20	0	18	1	19	64

Heavy Vehicle Peak Hour Summary
2:45 PM to 3:45 PM

By Approach	Northbound E Ivy St			Southbound E Ivy St			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	16	1	17	5	5	10	9	19	28	8	13	21	38
PHF	0.25			0.25			0.23			0.25			0.29

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	7	2	7	16	0	0	5	5	2	6	1	9	0	7	1	8	38
PHF	0.25	0.25	0.25	0.25	0.00	0.00	0.25	0.25	0.10	0.25	0.25	0.23	0.00	0.22	0.25	0.25	0.29

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
2:00 PM	0	0	0	0	0	0	4	4	4	7	0	11	0	10	0	10	25
2:15 PM	5	2	6	13	0	0	4	4	5	5	1	11	0	9	0	9	37
2:30 PM	7	2	7	16	0	0	5	5	5	6	1	12	0	8	1	9	42
2:45 PM	7	2	7	16	0	0	5	5	2	6	1	9	0	7	1	8	38
3:00 PM	7	2	7	16	0	0	0	5	5	2	6	1	9	0	8	1	9	39

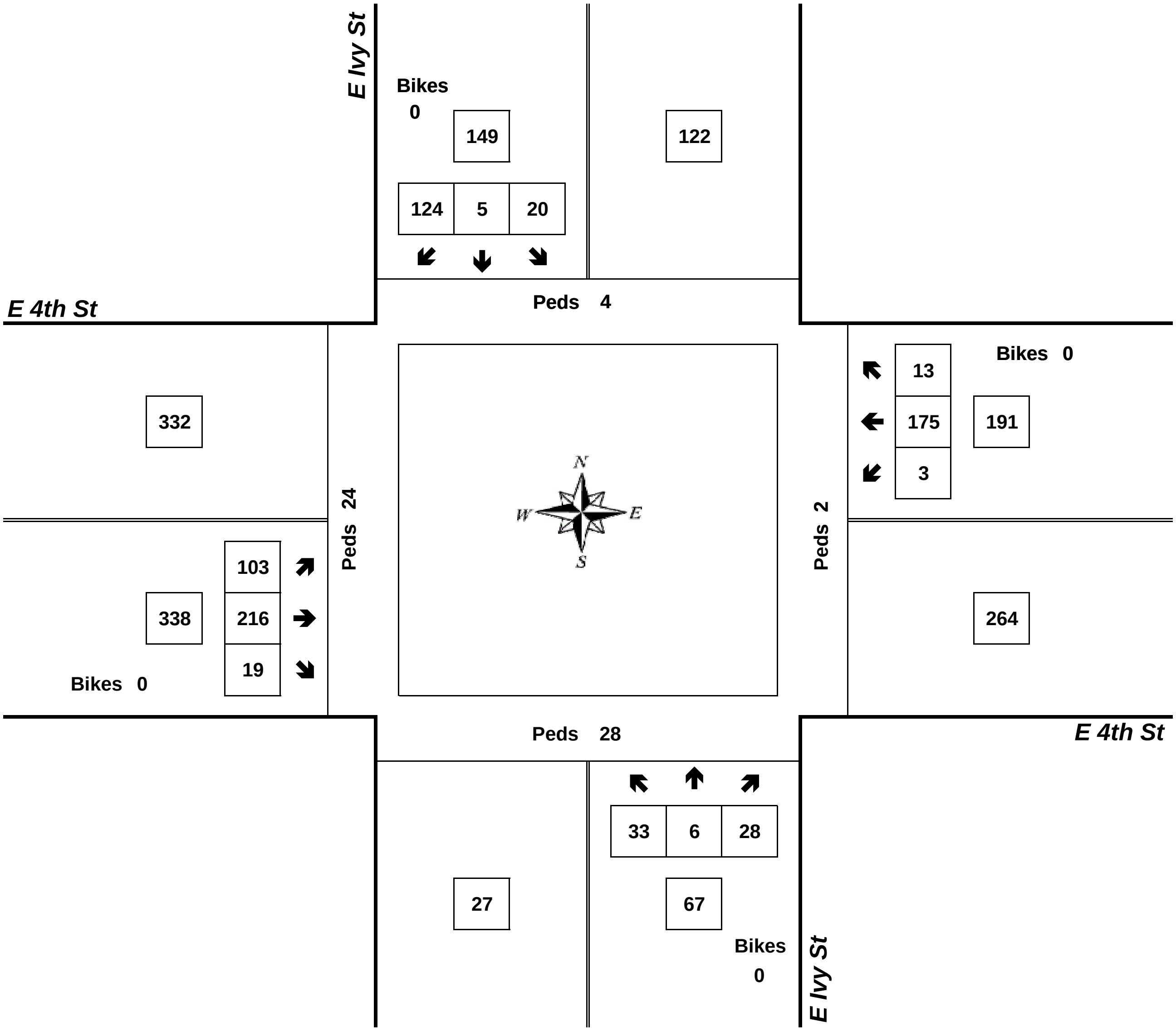
Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

E Ivy St & E 4th St

2:45 PM to 3:45 PM

Thursday, September 13, 2018

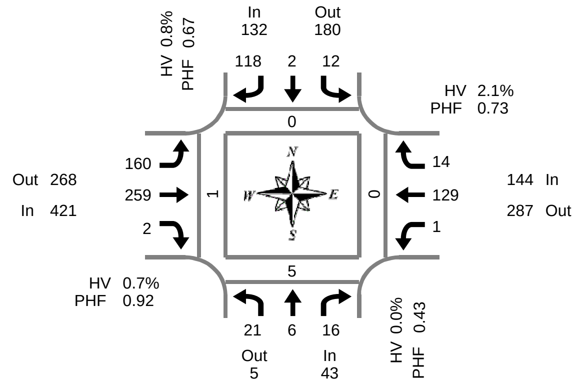


Approach	PHF	HV%	Volume
EB	0.89	2.7%	338
WB	0.70	4.2%	191
NB	0.38	23.9%	67
SB	0.52	3.4%	149
Intersection	0.82	5.1%	745

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



E Ivy St & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Peak Hour Summary
_5:00 PM to 6:00 PM_

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	2	0	1	0	2	0	31	0	24	46	2	0	0	39	1	0	148	0	21	0	0
4:15 PM	5	0	3	0	2	1	20	0	39	64	4	0	0	46	1	0	185	0	20	0	0
4:30 PM	6	1	4	0	0	0	17	0	39	57	1	0	0	44	3	0	172	0	32	0	0
4:45 PM	0	0	0	0	3	1	18	0	49	76	2	0	1	45	5	0	200	0	11	0	0
5:00 PM	1	0	0	0	5	1	22	0	46	59	0	0	0	28	7	0	169	0	1	0	0
5:15 PM	1	1	0	0	1	0	22	0	30	61	0	0	0	46	3	0	165	0	0	0	0
5:30 PM	14	4	7	0	0	0	32	0	45	68	2	0	0	30	3	0	205	0	1	0	0
5:45 PM	5	1	9	0	6	1	42	0	39	71	0	0	1	25	1	0	201	0	3	0	1
Total Survey	34	7	24	0	19	4	204	0	311	502	11	0	2	303	24	0	1,445	0	89	0	1

Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	43	5	48	0	132	180	312	0	421	268	689	0	144	287	431	0	740	0	5	0	1
%HV	0.0%				0.8%				0.7%				2.1%				0.9%				
PHF	0.43				0.67				0.92				0.73				0.90				

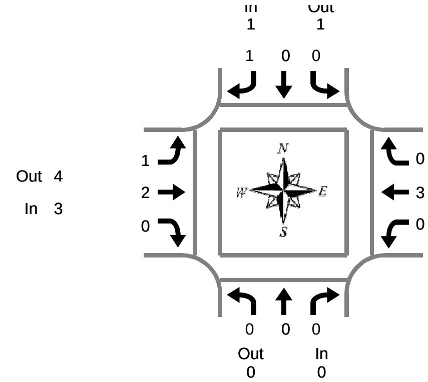
By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	21	6	16	43	12	2	118	132	160	259	2	421	1	129	14	144	740
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.8%	0.6%	0.8%	0.0%	0.7%	0.0%	2.3%	0.0%	2.1%	0.9%
PHF	0.38	0.38	0.44	0.43	0.50	0.50	0.70	0.67	0.87	0.91	0.25	0.92	0.25	0.70	0.50	0.73	0.90

Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	13	1	8	0	7	2	86	0	151	243	9	0	1	174	10	0	705	0	84	0	0
4:15 PM	12	1	7	0	10	3	77	0	173	256	7	0	1	163	16	0	726	0	64	0	0
4:30 PM	8	2	4	0	9	2	79	0	164	253	3	0	1	163	18	0	706	0	44	0	0
4:45 PM	16	5	7	0	9	2	94	0	170	264	4	0	1	149	18	0	739	0	13	0	0
5:00 PM	21	6	16	0	12	2	118	0	160	259	2	0	1	129	14	0	740	0	5	0	1

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
_5:00 PM to 6:00 PM_

E Ivy St & E 4th St

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	4	0	4	7
4:15 PM	0	0	0	0	0	0	1	1	0	2	0	2	0	2	0	2	5
4:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	1	0	1	3
4:45 PM	0	0	0	0	0	0	2	2	0	2	0	2	0	1	0	1	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:45 PM	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	2
Total Survey	0	0	0	0	0	0	6	6	1	9	0	10	0	11	0	11	27

Heavy Vehicle Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy St			Southbound E Ivy St			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	1	2	3	4	7	3	2	5	7
PHF	0.00			0.06			0.15			0.11			0.12

By Movement	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	1	1	1	2	0	3	0	3	0	3	7
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.25	0.10	0.00	0.15	0.00	0.11	0.00	0.11	0.12

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy St				Southbound E Ivy St				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	5	5	0	7	0	7	0	8	0	8	20
4:15 PM	0	0	0	0	0	0	4	4	0	5	0	5	0	4	0	4	13
4:30 PM	0	0	0	0	0	0	3	3	0	4	0	4	0	4	0	4	11
4:45 PM	0	0	0	0	0	0	2	2	0	4	0	4	0	4	0	4	10
5:00 PM	0	0	0	0	0	0	1	1	1	2	0	3	0	3	0	3	7

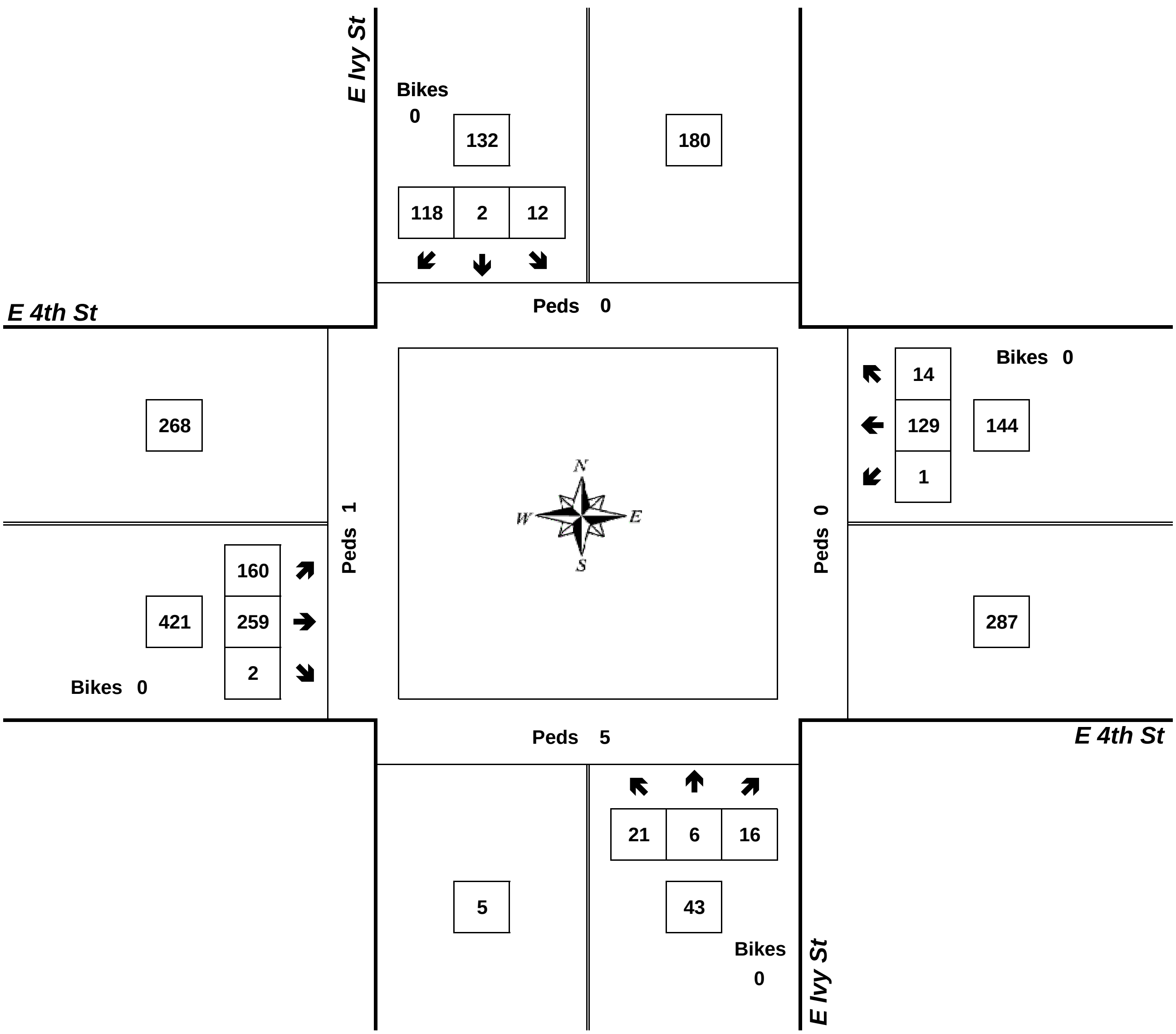
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

E Ivy St & E 4th St

5:00 PM to 6:00 PM
Thursday, September 13, 2018

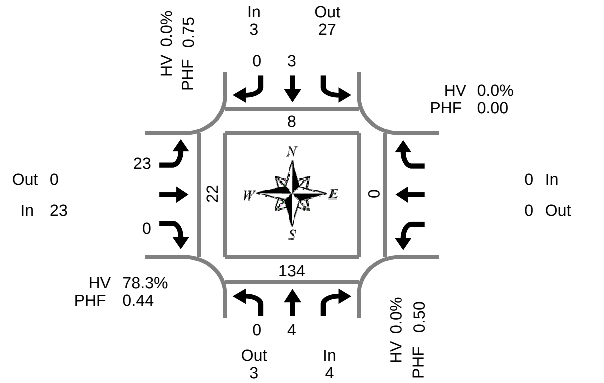


Approach	PHF	HV%	Volume
EB	0.92	0.7%	421
WB	0.73	2.1%	144
NB	0.43	0.0%	43
SB	0.67	0.8%	132
Intersection	0.90	0.9%	740

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:45 AM to 8:45 AM

E Ivy Ave & School Access

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes	
7:00 AM	0	0		0		0	0	0	0		0	0				0	0
7:15 AM	0	1		0		0	0	0	1		0	0				0	2
7:30 AM	0	0		0		0	0	0	0		0	0				0	0
7:45 AM	0	1		0		1	0	0	3		0	0				0	5
8:00 AM	0	2		0		1	0	0	13		0	0				0	16
8:15 AM	0	1		0		0	0	0	7		0	0				0	8
8:30 AM	0	0		0		1	0	0	0		0	0				0	1
8:45 AM	0	0		0		0	0	0	2		0	0				0	2
Total Survey	0	5		0		3	0	0	26		0	0				0	34

Pedestrians Crosswalk			
North	South	East	West
0	0	0	0
0	0	0	0
1	1	0	0
2	2	0	9
0	90	0	9
6	41	0	4
0	1	0	0
0	0	0	0
9	135	0	22

Peak Hour Summary
7:45 AM to 8:45 AM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	4	3	7	0	3	27	30	0	23	0	23	0	0	0	0	0	30
%HV	0.0%				0.0%				78.3%				0.0%				60.0%
PHF	0.50				0.75				0.44				0.00				0.47

Pedestrians Crosswalk			
North	South	East	West
8	134	0	22

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	0	4		4		3	0	3	23		0	23				0	30
%HV	0.0%	0.0%	NA	0.0%	NA	0.0%	0.0%	0.0%	78.3%	NA	0.0%	78.3%	NA	NA	NA	0.0%	60.0%
PHF	0.00	0.50		0.50		0.75	0.00	0.75	0.44		0.00	0.44				0.00	0.47

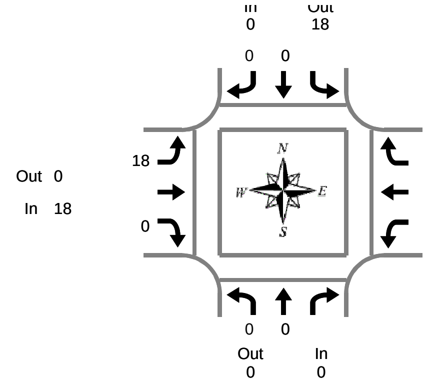
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes	
7:00 AM	0	2		0		1	0	0	4		0	0				0	7
7:15 AM	0	4		0		2	0	0	17		0	0				0	23
7:30 AM	0	4		0		2	0	0	23		0	0				0	29
7:45 AM	0	4		0		3	0	0	23		0	0				0	30
8:00 AM	0	3		0		2	0	0	22		0	0				0	27

Pedestrians Crosswalk			
North	South	East	West
3	3	0	9
3	93	0	18
9	134	0	22
8	134	0	22
6	132	0	13

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
7:45 AM to 8:45 AM

E Ivy Ave & School Access

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Total		T	R	Total	L		R	Total				Total	
7:00 AM	0	0		0		0	0	0	0		0	0				0	0
7:15 AM	0	0		0		0	0	0	0		0	0				0	0
7:30 AM	0	0		0		0	0	0	0		0	0				0	0
7:45 AM	0	0		0		0	0	0	1		0	1				0	1
8:00 AM	0	0		0		0	0	0	13		0	13				0	13
8:15 AM	0	0		0		0	0	0	4		0	4				0	4
8:30 AM	0	0		0		0	0	0	0		0	0				0	0
8:45 AM	0	0		0		0	0	0	0		0	0				0	0
Total Survey	0	0		0		0	0	0	18		0	18				0	18

Heavy Vehicle Peak Hour Summary
7:45 AM to 8:45 AM

By Approach	Northbound E Ivy Ave			Southbound E Ivy Ave			Eastbound School Access			Westbound School Access			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	18	18	18	0	18	0	0	0	18
PHF	0.00			0.00			0.25			0.00			0.25

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	0	0		0		0	0	0	18		0	18				0	18
PHF	0.00	0.00		0.00		0.00	0.00	0.00	0.25		0.00	0.25				0.00	0.25

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

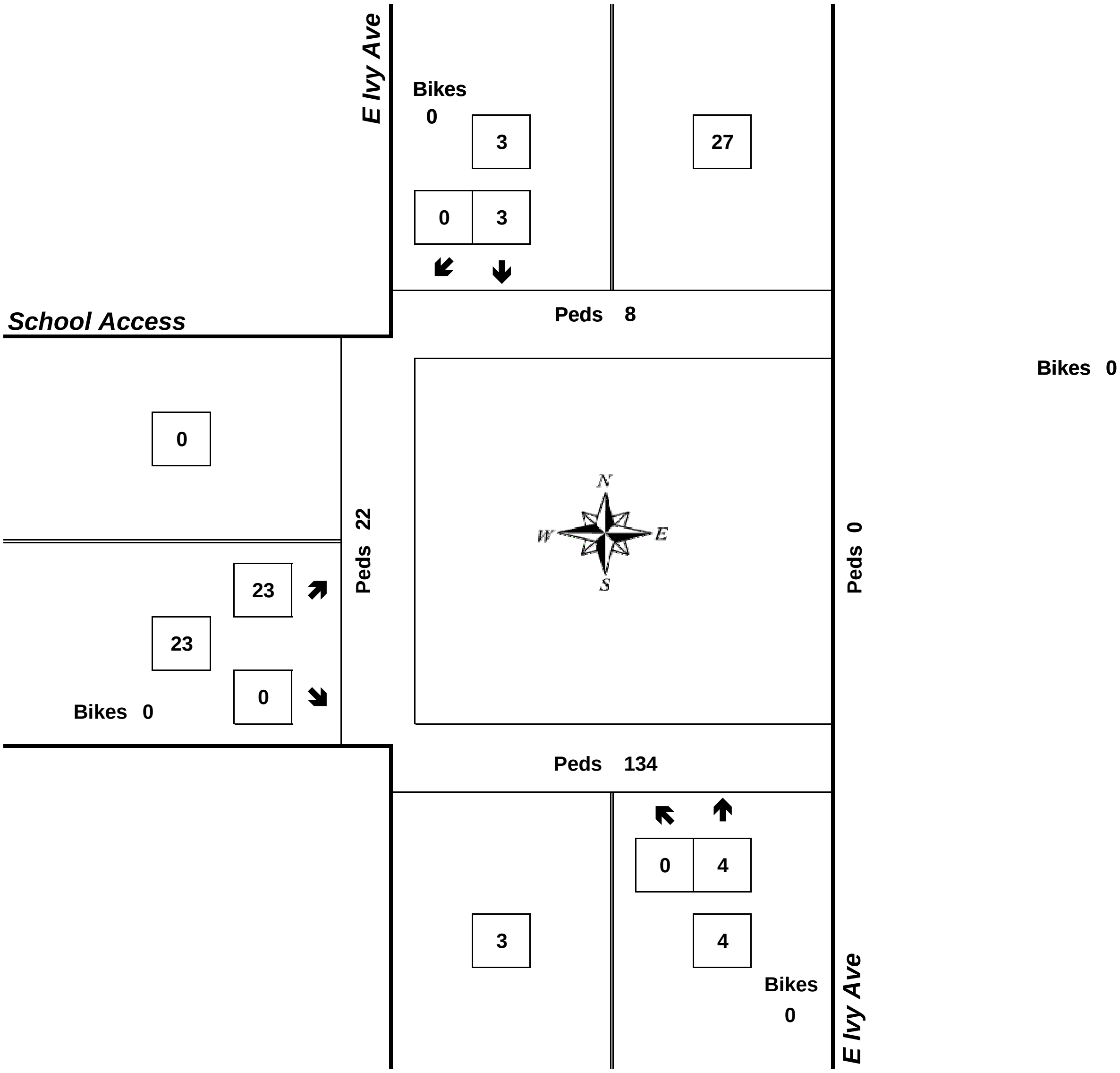
Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Total		T	R	Total	L		R	Total				Total	
7:00 AM	0	0		0		0	0	0	1		0	1				0	1
7:15 AM	0	0		0		0	0	0	14		0	14				0	14
7:30 AM	0	0		0		0	0	0	18		0	18				0	18
7:45 AM	0	0		0		0	0	0	18		0	18				0	18
8:00 AM	0	0		0		0	0	0	17		0	17				0	17

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

E Ivy Ave & School Access

7:45 AM to 8:45 AM
Thursday, September 13, 2018

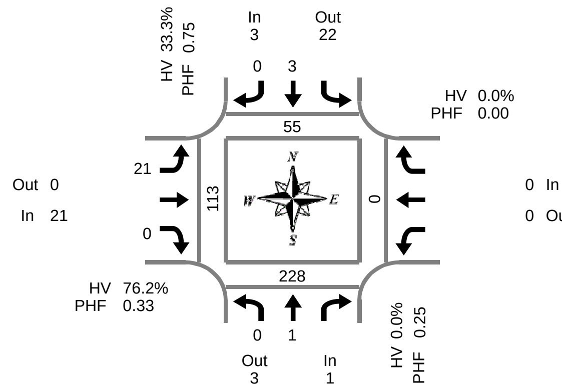


Approach	PHF	HV%	Volume
EB	0.44	78.3%	23
WB	0.00	0.0%	0
NB	0.50	0.0%	4
SB	0.75	0.0%	3
Intersection	0.47	60.0%	30

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
2:45 PM to 3:45 PM

E Ivy Ave & School Access

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval	Pedestrians Crosswalk			
Start Time	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes	Total	North	South	East	West
2:00 PM	0	0		0		0	0	0	0		0	0				0	0	0	0	0	0
2:15 PM	0	0		0		0	0	0	0		0	0				0	0	0	0	0	0
2:30 PM	0	0		0		1	0	0	0		0	0				0	1	1	9	0	4
2:45 PM	0	1		0		1	0	0	0		0	0				0	2	47	61	0	96
3:00 PM	0	0		0		1	0	0	16		0	0				0	17	8	164	0	16
3:15 PM	0	0		0		1	0	0	2		0	0				0	3	0	0	0	1
3:30 PM	0	0		0		0	0	0	3		0	0				0	3	0	3	0	0
3:45 PM	0	0		0		0	0	0	0		0	0				0	0	1	0	0	0
Total Survey	0	1		0		4	0	0	21		0	0				0	26	57	237	0	117

Peak Hour Summary
2:45 PM to 3:45 PM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	1	3	4	0	3	22	25	0	21	0	21	0	0	0	0	0	25	55	228	0	113
%HV	0.0%				33.3%				76.2%				0.0%				68.0%				
PHF	0.25				0.75				0.33				0.00				0.37				

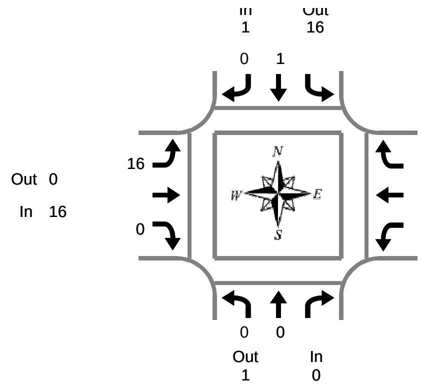
By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	0	1		1		3	0	3	21		0	21				0	25
%HV	0.0%	0.0%	NA	0.0%	NA	33.3%	0.0%	33.3%	76.2%	NA	0.0%	76.2%	NA	NA	NA	0.0%	68.0%
PHF	0.00	0.25		0.25		0.75	0.00	0.75	0.33		0.00	0.33				0.00	0.37

Rolling Hour Summary
2:00 PM to 4:00 PM

Interval	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval	Pedestrians Crosswalk			
Start Time	L	T		Bikes		T	R	Bikes	L		R	Bikes				Bikes	Total	North	South	East	West
2:00 PM	0	1		0		2	0	0	0		0	0				0	3	48	70	0	100
2:15 PM	0	1		0		3	0	0	16		0	0				0	20	56	234	0	116
2:30 PM	0	1		0		4	0	0	18		0	0				0	23	56	234	0	117
2:45 PM	0	1		0		3	0	0	21		0	0				0	25	55	228	0	113
3:00 PM	0	0		0		2	0	0	21		0	0				0	23	9	167	0	17

Heavy Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
2:45 PM to 3:45 PM

E Ivy Ave & School Access

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Total		T	R	Total	L		R	Total				Total	
2:00 PM	0	0		0		0	0	0	0		0	0				0	0
2:15 PM	0	0		0		0	0	0	0		0	0				0	0
2:30 PM	0	0		0		0	0	0	0		0	0				0	0
2:45 PM	0	0		0		0	0	0	0		0	0				0	0
3:00 PM	0	0		0		1	0	1	15		0	15				0	16
3:15 PM	0	0		0		0	0	0	1		0	1				0	1
3:30 PM	0	0		0		0	0	0	0		0	0				0	0
3:45 PM	0	0		0		0	0	0	0		0	0				0	0
Total Survey	0	0		0		1	0	1	16		0	16				0	17

Heavy Vehicle Peak Hour Summary
2:45 PM to 3:45 PM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total		
Volume	0	1	1		1	16	17		16	0	16		0	0	0		17
PHF	0.00				0.25				0.25				0.00				0.25

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T		Total		T	R	Total	L		R	Total				Total	
Volume	0	0		0		1	0	1	16		0	16				0	17
PHF	0.00	0.00		0.00		0.25	0.00	0.25	0.25		0.00	0.25				0.00	0.25

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T		Total		T	R	Total	L		R	Total				Total	
2:00 PM	0	0		0		0	0	0	0		0	0				0	0
2:15 PM	0	0		0		1	0	1	15		0	15				0	16
2:30 PM	0	0		0		1	0	1	16		0	16				0	17
2:45 PM	0	0		0		1	0	1	16		0	16				0	17
3:00 PM	0	0		0		1	0	1	16		0	16				0	17

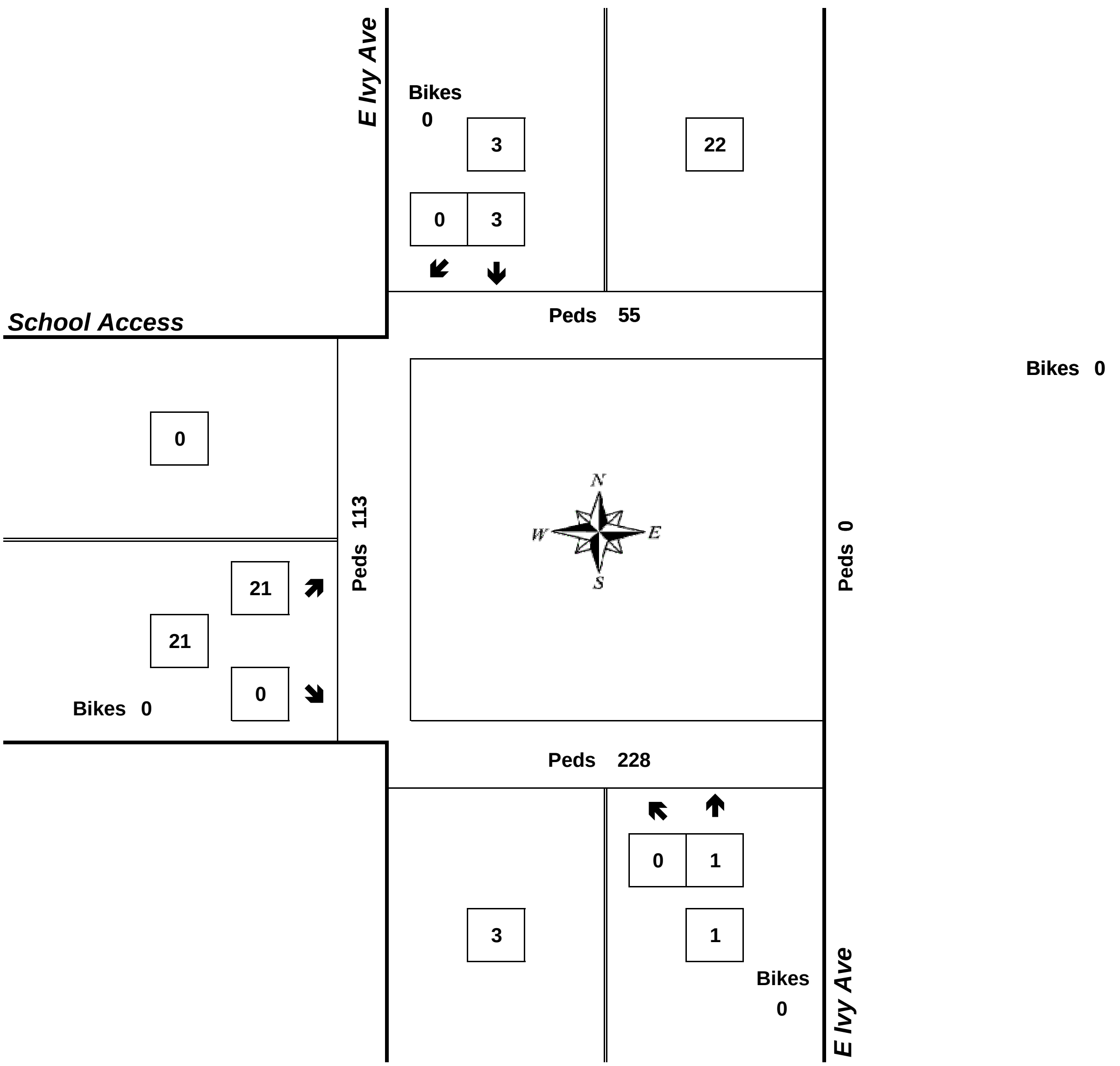
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

E Ivy Ave & School Access

2:45 PM to 3:45 PM
Thursday, September 13, 2018



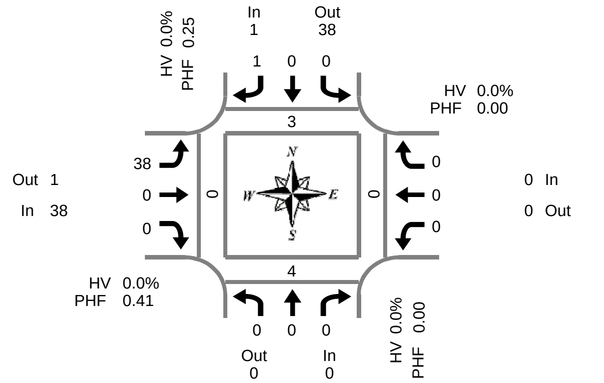
Approach	PHF	HV%	Volume
EB	0.33	76.2%	21
WB	0.00	0.0%	0
NB	0.25	0.0%	1
SB	0.75	33.3%	3
Intersection	0.37	68.0%	25

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
5:00 PM to 6:00 PM

E Ivy Ave & School Access

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	
4:00 PM	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	3
4:15 PM	0	1	0	0	0	0	2	0	1	0	0	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	11	0	0	1	0	0	0	0	11
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	1	23	0	0	0	0	0	0	0	23
5:45 PM	0	0	0	0	0	0	1	0	13	0	0	0	0	0	0	0	14
Total Survey	0	1	0	0	0	1	3	1	52	0	0	1	0	0	0	0	57

Interval Start Time	Pedestrians Crosswalk			
	North	South	East	West
4:00 PM	0	0	0	1
4:15 PM	2	0	0	0
4:30 PM	1	0	0	1
4:45 PM	0	0	0	0
5:00 PM	1	0	0	0
5:15 PM	1	0	0	0
5:30 PM	1	1	0	0
5:45 PM	0	3	0	0
Total Survey	6	4	0	2

Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	0	0	0	0	1	38	39	1	38	1	39	0	0	0	0	0	39
%HV	0.0%				0.0%				0.0%				0.0%				0.0%
PHF	0.00				0.25				0.41				0.00				0.42

Pedestrians Crosswalk			
North	South	East	West
3	4	0	0

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	1	1	38	0	0	38	0	0	0	0	39
%HV	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.41	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.42

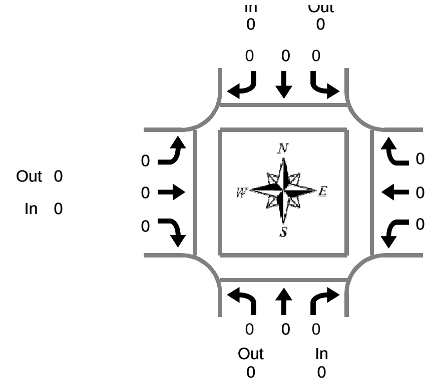
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	
4:00 PM	0	1	0	0	0	1	2	0	14	0	0	1	0	0	0	0	18
4:15 PM	0	1	0	0	0	0	2	0	13	0	0	1	0	0	0	0	16
4:30 PM	0	0	0	0	0	0	0	0	13	0	0	1	0	0	0	0	13
4:45 PM	0	0	0	0	0	0	0	1	25	0	0	0	0	0	0	0	25
5:00 PM	0	0	0	0	0	0	1	1	38	0	0	0	0	0	0	0	39

Interval Start Time	Pedestrians Crosswalk			
	North	South	East	West
4:00 PM	3	0	0	2
4:15 PM	4	0	0	1
4:30 PM	3	0	0	1
4:45 PM	3	1	0	0
5:00 PM	3	4	0	0

Heavy Vehicle Summary

Clay Carney
(503) 833-2740



Peak Hour Summary
5:00 PM to 6:00 PM

E Ivy Ave & School Access

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Heavy Vehicle Peak Hour Summary
5:00 PM to 6:00 PM

By Approach	Northbound E Ivy Ave			Southbound E Ivy Ave			Eastbound School Access			Westbound School Access			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00			0.00			0.00			0.00			0.00

By Movement	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound E Ivy Ave				Southbound E Ivy Ave				Eastbound School Access				Westbound School Access				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

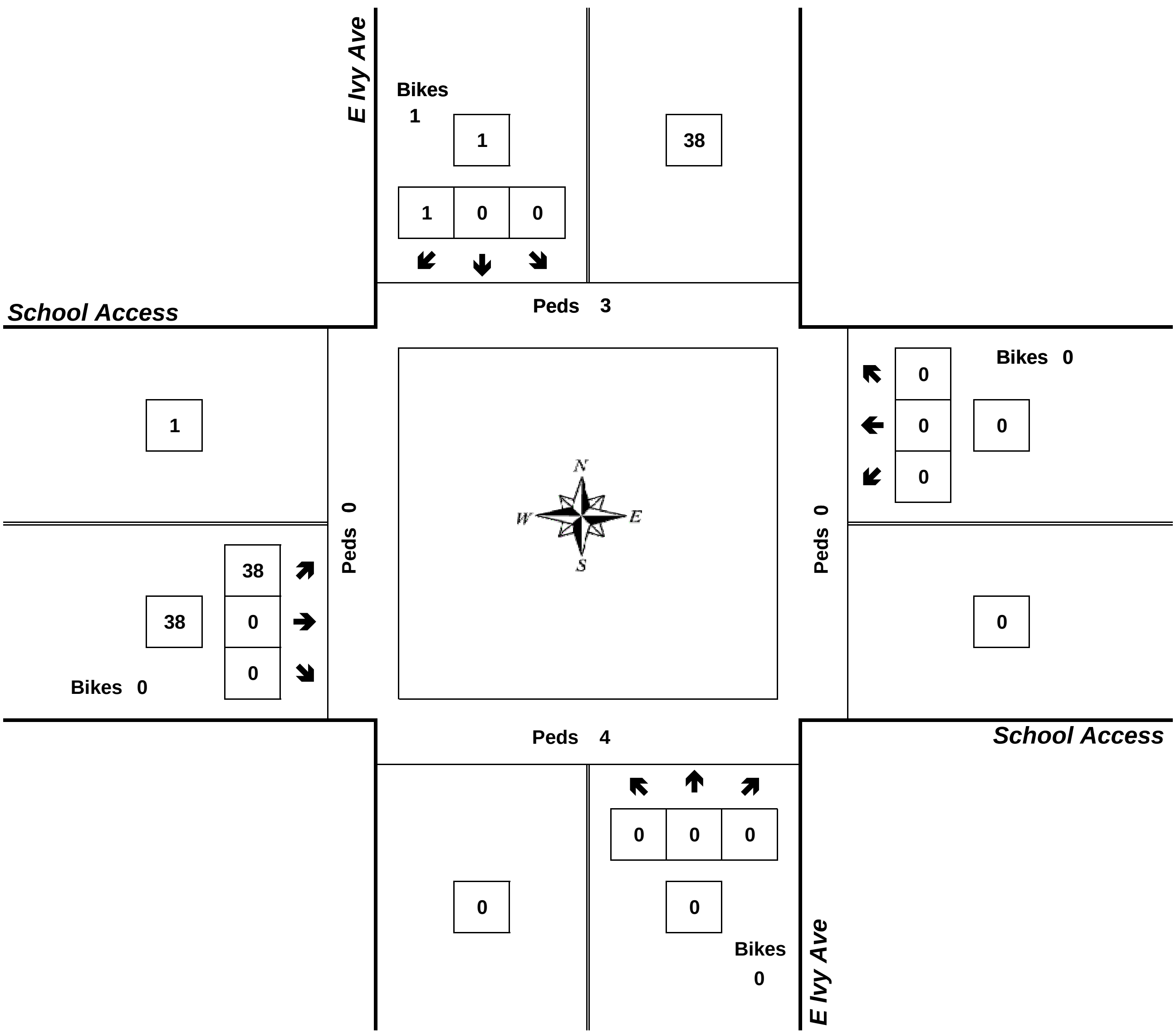
Peak Hour Summary

Clay Carney
(503) 833-2740

E Ivy Ave & School Access

5:00 PM to 6:00 PM

Thursday, September 13, 2018

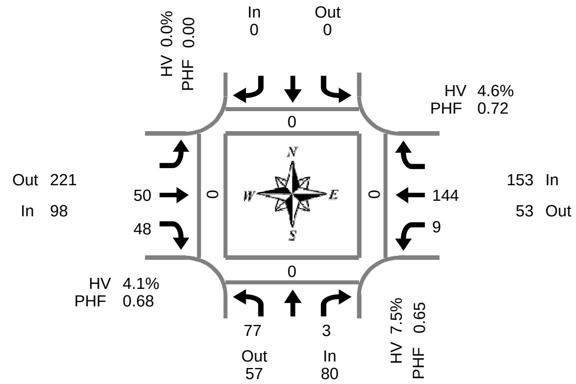


Approach	PHF	HV%	Volume
EB	0.41	0.0%	38
WB	0.00	0.0%	0
NB	0.00	0.0%	0
SB	0.25	0.0%	1
Intersection	0.42	0.0%	39

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
7:00 AM to 9:00 AM

15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
7:00 AM	8		0	0				0		6	5	0	2	20		0	41	0	0	0	0
7:15 AM	16		0	0				0		6	11	0	3	30		0	66	0	0	0	0
7:30 AM	18		1	0				0		4	6	0	2	24		0	55	0	0	0	0
7:45 AM	31		0	0				0		8	10	0	4	49		0	102	0	0	0	0
8:00 AM	16		1	0				0		17	17	0	0	44		0	95	0	0	0	0
8:15 AM	12		1	0				0		21	15	0	3	27		0	79	0	0	0	0
8:30 AM	8		0	0				0		10	11	0	1	18		0	48	0	0	0	0
8:45 AM	13		0	0				0		8	11	0	1	11		0	44	0	0	0	0
Total Survey	122		3	0				0		80	86	0	16	223		0	530	0	0	0	0

Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	80	57	137	0	0	0	0	0	98	221	319	0	153	53	206	0	331	0	0	0	0
%HV	7.5%				0.0%				4.1%				4.6%				5.1%				
PHF	0.65				0.00				0.68				0.72				0.81				

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	77		3	80				0		50	48	98	9	144		153	331
%HV	7.8%	NA	0.0%	7.5%	NA	NA	NA	0.0%	NA	6.0%	2.1%	4.1%	22.2%	3.5%	NA	4.6%	5.1%
PHF	0.62		0.75	0.65				0.00		0.60	0.71	0.68	0.56	0.73		0.72	0.81

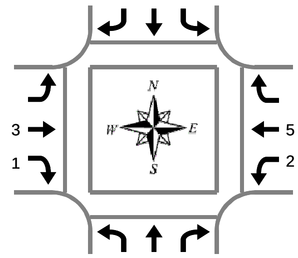
Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
7:00 AM	73		1	0				0		24	32	0	11	123		0	264	0	0	0	0
7:15 AM	81		2	0				0		35	44	0	9	147		0	318	0	0	0	0
7:30 AM	77		3	0				0		50	48	0	9	144		0	331	0	0	0	0
7:45 AM	67		2	0				0		56	53	0	8	138		0	324	0	0	0	0
8:00 AM	49		2	0				0		56	54	0	5	100		0	266	0	0	0	0

Heavy Vehicle Summary

All Traffic Data
1010110
Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
7:30 AM to 8:30 AM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
7:00 AM to 9:00 AM

Heavy Vehicle 15-Minute Interval Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	0		0	0				0		4	1	5	0	0		0	5
7:15 AM	1		0	1				0		3	2	5	0	0		0	6
7:30 AM	2		0	2				0		1	0	1	1	2		3	6
7:45 AM	3		0	3				0		0	1	1	1	3		4	8
8:00 AM	1		0	1				0		2	0	2	0	0		0	3
8:15 AM	0		0	0				0		0	0	0	0	0		0	0
8:30 AM	1		0	1				0		0	0	0	0	0		0	1
8:45 AM	0		0	0				0		0	0	0	0	1		1	1
Total Survey	8		0	8				0		10	4	14	2	6		8	30

Heavy Vehicle Peak Hour Summary
7:30 AM to 8:30 AM

By Approach	Northbound NE 40th Ave			Southbound NE 40th Ave			Eastbound NE Lockwood Creek Rd			Westbound NE Lockwood Creek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	3	9	0	0	0	4	11	15	7	3	10	17
PHF	0.25			0.00			0.09			0.25			0.21

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	6		0	6				0		3	1	4	2	5		7	17
PHF	0.25		0.00	0.25				0.00		0.09	0.08	0.09	0.25	0.25		0.25	0.21

Heavy Vehicle Rolling Hour Summary
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
7:00 AM	6		0	6				0		8	4	12	2	5		7	25
7:15 AM	7		0	7				0		6	3	9	2	5		7	23
7:30 AM	6		0	6				0		3	1	4	2	5		7	17
7:45 AM	5		0	5				0		2	1	3	1	3		4	12
8:00 AM	2		0	2				0		2	0	2	0	1		1	5

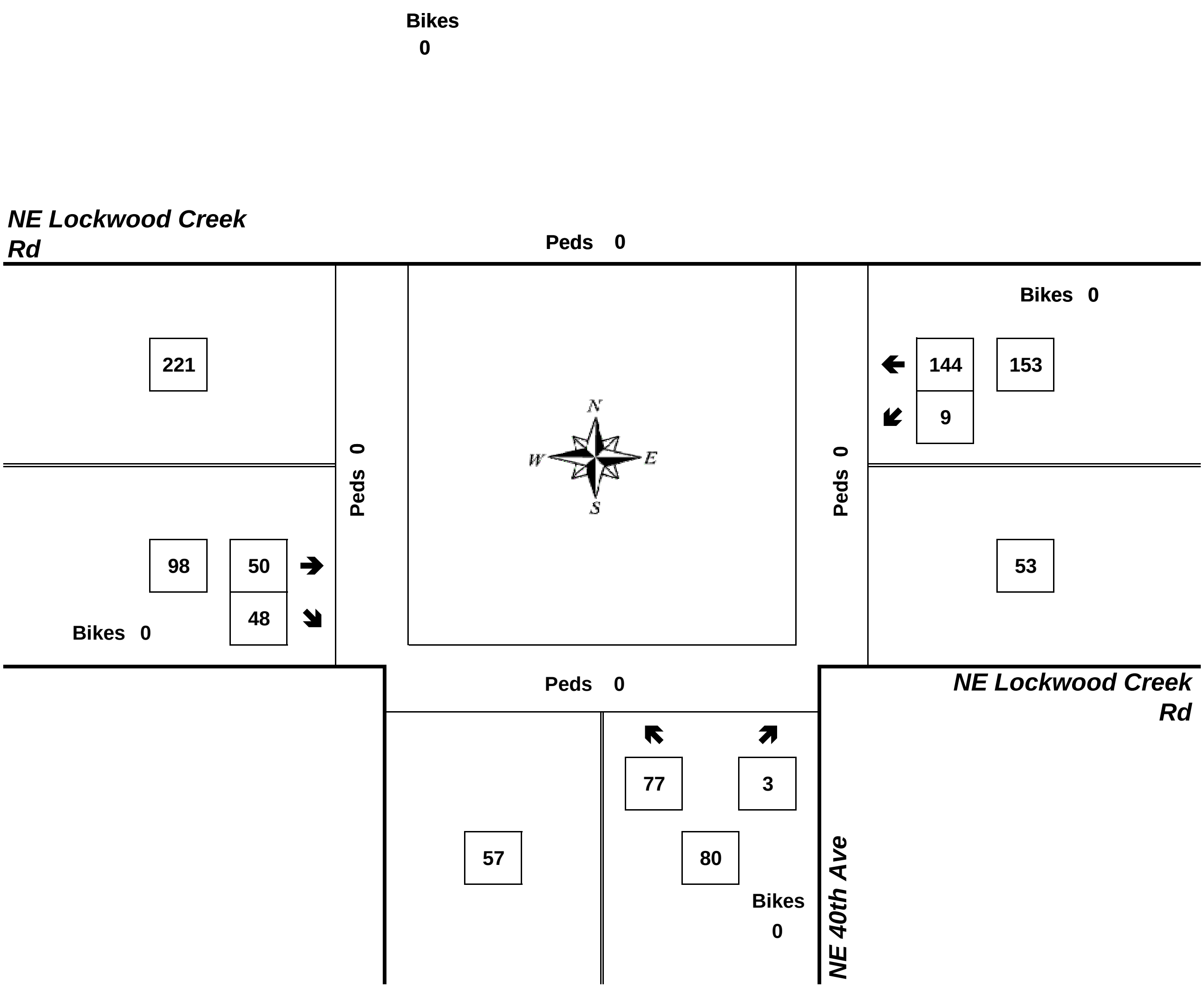
Peak Hour Summary

Clay Carney
(503) 833-2740

NE 40th Ave & NE Lockwood Creek Rd

7:30 AM to 8:30 AM

Thursday, September 13, 2018



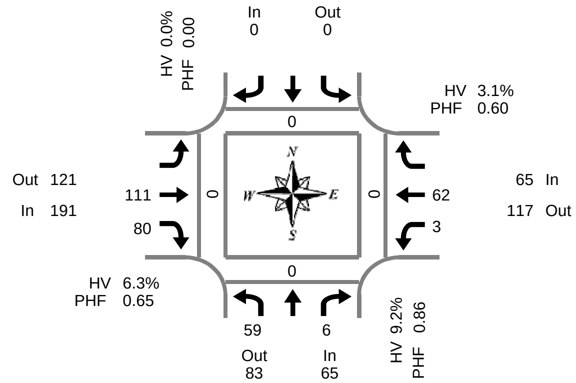
Approach	PHF	HV%	Volume
EB	0.68	4.1%	98
WB	0.72	4.6%	153
NB	0.65	7.5%	80
SB	0.00	0.0%	0
Intersection	0.81	5.1%	331

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary

All Traffic Data
Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
2:00 PM to 4:00 PM

15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	
2:00 PM	7		0	0				0		16	8	0	0	15		0	46
2:15 PM	14		1	0				0		13	8	0	1	16		0	53
2:30 PM	13		1	0				0		11	11	0	0	27		0	63
2:45 PM	15		2	0				0		29	24	0	2	14		0	86
3:00 PM	14		1	0				0		45	28	0	0	10		0	98
3:15 PM	17		2	0				0		26	17	0	1	11		0	74
3:30 PM	13		0	0				0		26	11	0	1	7		0	58
3:45 PM	8		1	0				0		19	13	0	2	21		0	64
Total Survey	101		8	0				0		185	120	0	7	121		0	542

Interval Start Time	Pedestrians Crosswalk			
	North	South	East	West
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
Total Survey	0	0	0	0

Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	
Volume	65	83	148	0	0	0	0	0	191	121	312	0	65	117	182	0	321
%HV	9.2%				0.0%				6.3%				3.1%				6.2%
PHF	0.86				0.00				0.65				0.60				0.82

	Pedestrians Crosswalk			
	North	South	East	West
Volume	0	0	0	0

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	59		6	65				0		111	80	191	3	62		65	321
%HV	6.8%	NA	33.3%	9.2%	NA	NA	NA	0.0%	NA	7.2%	5.0%	6.3%	0.0%	3.2%	NA	3.1%	6.2%
PHF	0.87		0.75	0.86				0.00		0.62	0.71	0.65	0.38	0.57		0.60	0.82

Rolling Hour Summary
2:00 PM to 4:00 PM

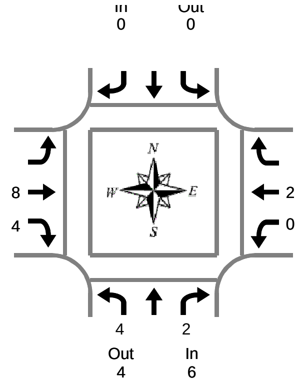
Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes	
2:00 PM	49		4	0				0		69	51	0	3	72		0	248
2:15 PM	56		5	0				0		98	71	0	3	67		0	300
2:30 PM	59		6	0				0		111	80	0	3	62		0	321
2:45 PM	59		5	0				0		126	80	0	4	42		0	316
3:00 PM	52		4	0				0		116	69	0	4	49		0	294

Interval Start Time	Pedestrians Crosswalk			
	North	South	East	West
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
2:30 PM to 3:30 PM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
2:00 PM to 4:00 PM

Heavy Vehicle 15-Minute Interval Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
2:00 PM	0		0	0				0		1	0	1	0	2		2	3
2:15 PM	0		0	0				0		0	1	1	0	0		0	1
2:30 PM	2		0	2				0		1	1	2	0	1		1	5
2:45 PM	2		1	3				0		1	0	1	0	0		0	4
3:00 PM	0		0	0				0		3	0	3	0	1		1	4
3:15 PM	0		1	1				0		3	3	6	0	0		0	7
3:30 PM	1		0	1				0		2	0	2	0	1		1	4
3:45 PM	2		0	2				0		1	1	2	0	4		4	8
Total Survey	7		2	9				0		12	6	18	0	9		9	36

Heavy Vehicle Peak Hour Summary
2:30 PM to 3:30 PM

By Approach	Northbound NE 40th Ave			Southbound NE 40th Ave			Eastbound NE Lockwood Creek Rd			Westbound NE Lockwood Creek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	6	4	10	0	0	0	12	6	18	2	10	12	20
PHF	0.30			0.00			0.27			0.10			0.26

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	4		2	6				0		8	4	12	0	2		2	20
PHF	0.25		0.25	0.30				0.00		0.25	0.25	0.27	0.00	0.10		0.10	0.26

Heavy Vehicle Rolling Hour Summary
2:00 PM to 4:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
2:00 PM	4		1	5				0		3	2	5	0	3		3	13
2:15 PM	4		1	5				0		5	2	7	0	2		2	14
2:30 PM	4		2	6				0		8	4	12	0	2		2	20
2:45 PM	3		2	5				0		9	3	12	0	2		2	19
3:00 PM	3		1	4				0		9	4	13	0	6		6	23

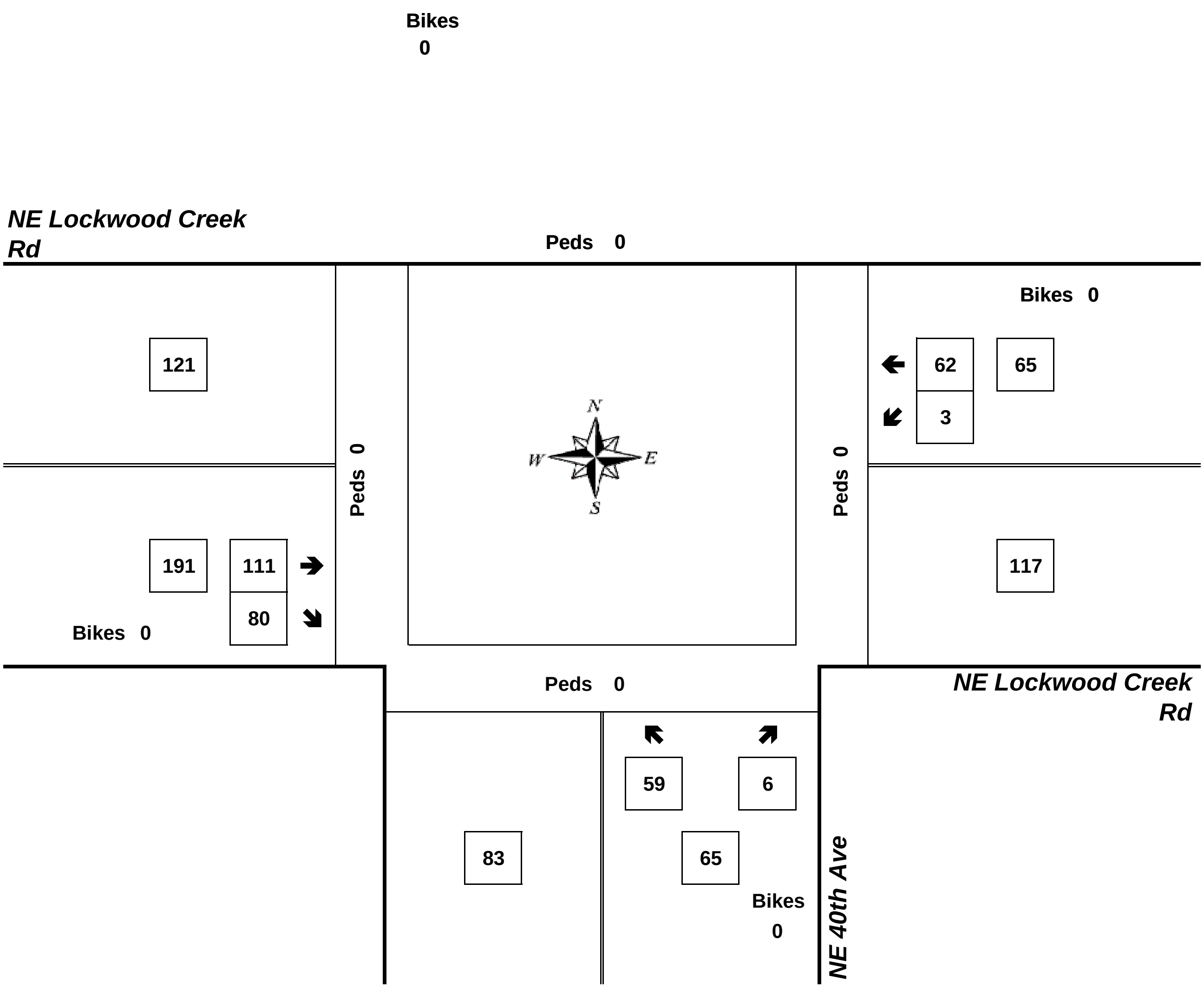
Peak Hour Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740

NE 40th Ave & NE Lockwood Creek Rd

2:30 PM to 3:30 PM
Thursday, September 13, 2018

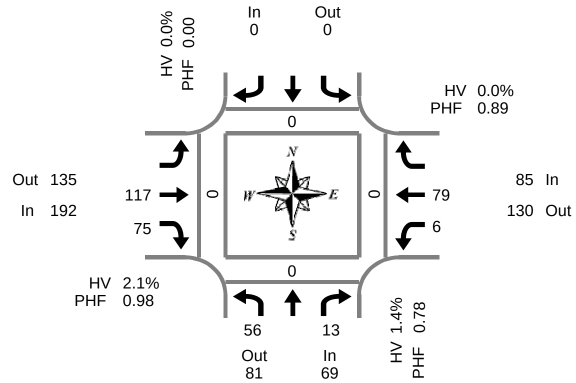


Approach	PHF	HV%	Volume
EB	0.65	6.3%	191
WB	0.60	3.1%	65
NB	0.86	9.2%	65
SB	0.00	0.0%	0
Intersection	0.82	6.2%	321

Count Period: 2:00 PM to 4:00 PM

Total Vehicle Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740



Peak Hour Summary
4:15 PM to 5:15 PM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
4:00 PM to 6:00 PM

15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	12		3	0				0		15	16	0	0	13		0	59	0	0	0	0
4:15 PM	10		4	0				0		29	19	0	2	22		0	86	0	0	0	0
4:30 PM	18		0	0				0		29	19	0	1	22		0	89	0	0	0	0
4:45 PM	17		5	0				0		32	15	0	2	19		0	90	0	0	0	0
5:00 PM	11		4	0				0		27	22	0	1	16		0	81	0	0	0	0
5:15 PM	17		1	0				0		29	17	0	2	17		0	83	0	0	0	0
5:30 PM	13		0	0				0		33	20	0	2	12		0	80	0	0	0	0
5:45 PM	6		3	0				0		34	29	0	0	11		0	83	0	0	0	0
Total Survey	104		20	0				0		228	157	0	10	132		0	651	0	0	0	0

Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	69	81	150	0	0	0	0	0	192	135	327	0	85	130	215	0	346	0	0	0	0
%HV	1.4%				0.0%				2.1%				0.0%				1.4%				
PHF	0.78				0.00				0.98				0.89				0.96				

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	56		13	69				0		117	75	192	6	79		85	346
%HV	1.8%	NA	0.0%	1.4%	NA	NA	NA	0.0%	NA	2.6%	1.3%	2.1%	0.0%	0.0%	NA	0.0%	1.4%
PHF	0.78		0.65	0.78				0.00		0.91	0.85	0.98	0.75	0.90		0.89	0.96

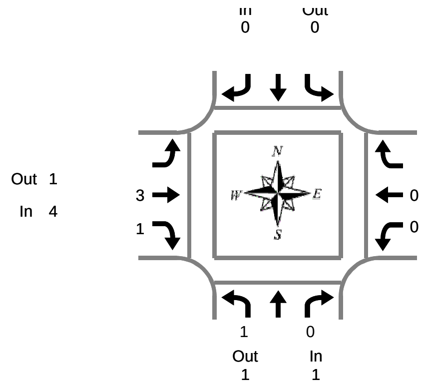
Rolling Hour Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total	Pedestrians Crosswalk			
	L		R	Bikes				Bikes		T	R	Bikes	L	T		Bikes		North	South	East	West
4:00 PM	57		12	0				0		105	69	0	5	76		0	324	0	0	0	0
4:15 PM	56		13	0				0		117	75	0	6	79		0	346	0	0	0	0
4:30 PM	63		10	0				0		117	73	0	6	74		0	343	0	0	0	0
4:45 PM	58		10	0				0		121	74	0	7	64		0	334	0	0	0	0
5:00 PM	47		8	0				0		123	88	0	5	56		0	327	0	0	0	0

Heavy Vehicle Summary

All Traffic Data Services Inc.

Clay Carney
(503) 833-2740



Peak Hour Summary
4:15 PM to 5:15 PM

NE 40th Ave & NE Lockwood Creek Rd

Thursday, September 13, 2018
4:00 PM to 6:00 PM

Heavy Vehicle 15-Minute Interval Summary
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	1		0	1				0		0	1	1	0	1		1	3
4:15 PM	0		0	0				0		1	0	1	0	0		0	1
4:30 PM	0		0	0				0		1	0	1	0	0		0	1
4:45 PM	1		0	1				0		1	0	1	0	0		0	2
5:00 PM	0		0	0				0		0	1	1	0	0		0	1
5:15 PM	2		0	2				0		0	0	0	0	0		0	2
5:30 PM	0		0	0				0		0	0	0	0	1		1	1
5:45 PM	0		0	0				0		1	0	1	0	0		0	1
Total Survey	4		0	4				0		4	2	6	0	2		2	12

Heavy Vehicle Peak Hour Summary
4:15 PM to 5:15 PM

By Approach	Northbound NE 40th Ave			Southbound NE 40th Ave			Eastbound NE Lockwood Creek Rd			Westbound NE Lockwood Creek Rd			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	1	2	0	0	0	4	1	5	0	3	3	5
PHF	0.08			0.00			0.33			0.00			0.25

By Movement	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Total
	L		R	Total				Total		T	R	Total	L	T		Total	
Volume	1		0	1				0		3	1	4	0	0		0	5
PHF	0.08		0.00	0.08				0.00		0.25	0.25	0.33	0.00	0.00		0.00	0.25

Heavy Vehicle Rolling Hour Summary
4:00 PM to 6:00 PM

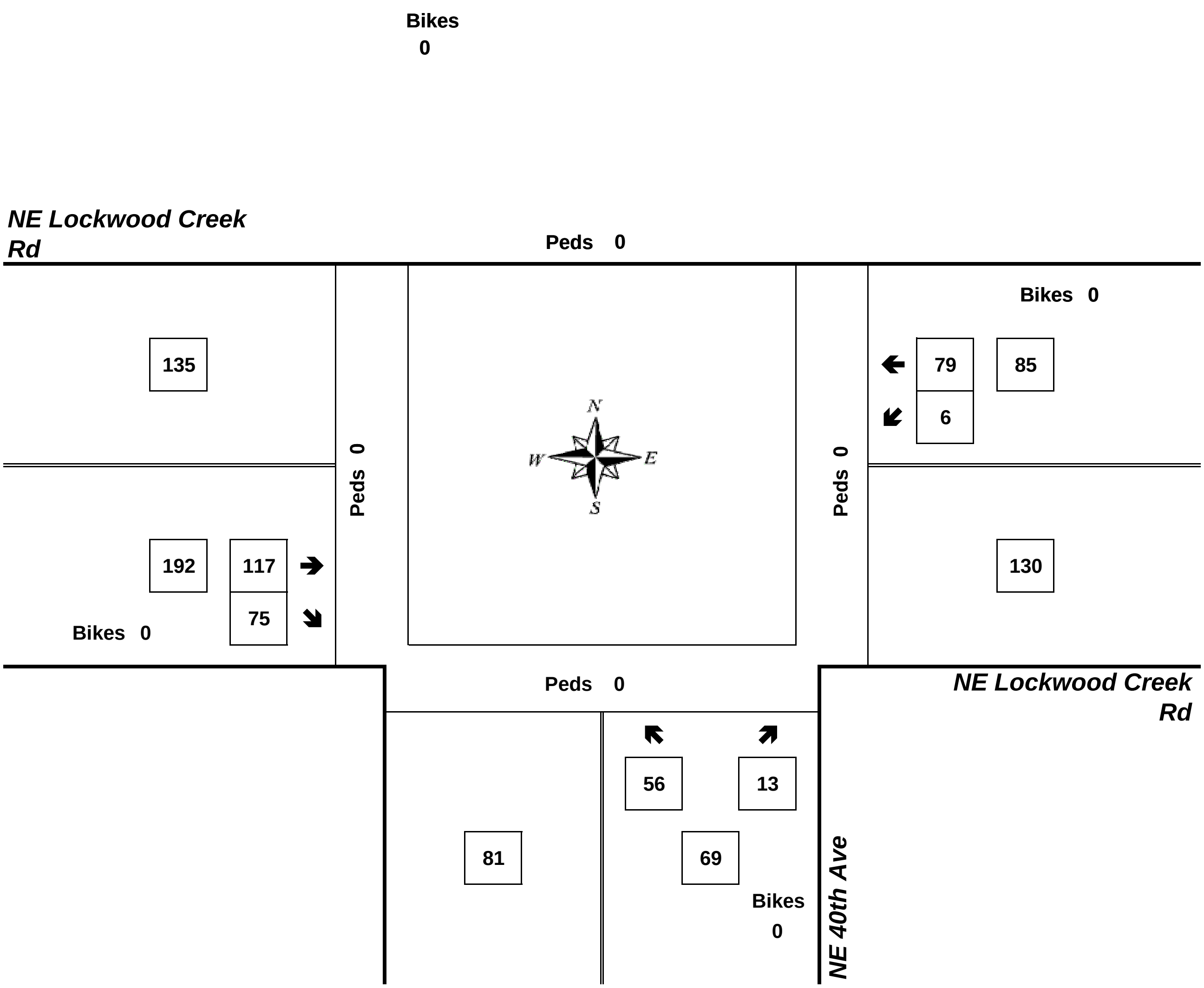
Interval Start Time	Northbound NE 40th Ave				Southbound NE 40th Ave				Eastbound NE Lockwood Creek Rd				Westbound NE Lockwood Creek Rd				Interval Total
	L		R	Total				Total		T	R	Total	L	T		Total	
4:00 PM	2		0	2				0		3	1	4	0	1		1	7
4:15 PM	1		0	1				0		3	1	4	0	0		0	5
4:30 PM	3		0	3				0		2	1	3	0	0		0	6
4:45 PM	3		0	3				0		1	1	2	0	1		1	6
5:00 PM	2		0	2				0		1	1	2	0	1		1	5

Peak Hour Summary

All Traffic Data Services Inc.
Clay Carney
(503) 833-2740

NE 40th Ave & NE Lockwood Creek Rd

4:15 PM to 5:15 PM
Thursday, September 13, 2018



Approach	PHF	HV%	Volume
EB	0.98	2.1%	192
WB	0.89	0.0%	85
NB	0.78	1.4%	69
SB	0.00	0.0%	0
Intersection	0.96	1.4%	346

Count Period: 4:00 PM to 6:00 PM

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

EB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
09/13/18	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:30	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
02:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
05:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
05:15	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
05:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	0	6	1	0	3	0	0	0	0	0	0	0	0	0	10
06:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:15	0	1	1	0	0	0	0	0	0	0	0	0	0	1	3
06:30	0	5	0	0	2	0	0	0	0	0	0	0	0	0	7
06:45	0	6	1	0	0	0	0	1	0	0	0	0	0	0	8
	0	12	3	0	2	0	0	1	0	0	0	0	0	1	19
07:00	0	4	4	5	0	0	0	0	0	0	0	0	0	0	13
07:15	0	4	6	2	4	0	0	0	0	0	0	0	0	0	16
07:30	2	5	2	0	0	0	0	0	0	0	0	0	0	0	9
07:45	0	10	1	0	0	0	0	0	0	0	0	0	0	2	13
	2	23	13	7	4	0	0	0	0	0	0	0	0	2	51
08:00	1	22	10	0	4	1	0	0	0	0	0	0	0	1	39
08:15	0	25	9	0	4	0	0	1	0	0	0	0	0	1	40
08:30	0	9	7	0	1	0	0	1	0	0	0	0	0	1	19
08:45	0	6	9	0	2	0	0	0	0	0	0	0	0	0	17
	1	62	35	0	11	1	0	2	0	0	0	0	0	3	115
09:00	0	5	5	1	2	0	0	0	0	0	0	0	0	0	13
09:15	0	3	7	0	4	0	0	0	0	0	0	0	0	1	15
09:30	0	7	7	0	2	0	0	0	0	0	0	0	0	0	16
09:45	0	12	0	0	2	0	0	0	0	0	0	0	0	0	14
	0	27	19	1	10	0	0	0	0	0	0	0	0	1	58
10:00	0	10	6	0	2	0	0	0	0	0	0	0	0	0	18
10:15	0	9	9	0	0	0	0	0	0	0	0	0	0	0	18
10:30	0	10	4	0	4	0	0	0	0	0	0	0	0	0	18
10:45	0	11	2	0	3	0	0	0	0	0	0	0	0	1	17
	0	40	21	0	9	0	0	0	0	0	0	0	0	1	71
11:00	0	8	9	0	2	1	0	0	0	0	0	0	0	0	20
11:15	0	11	4	0	1	1	0	1	0	0	0	0	0	1	19
11:30	0	6	2	0	6	0	0	0	0	0	0	0	0	0	14
11:45	0	13	6	0	3	0	0	0	0	0	0	0	0	1	23
	0	38	21	0	12	2	0	1	0	0	0	0	0	2	76
Total	3	222	115	8	53	3	0	4	0	0	0	0	0	10	418
Percent	0.7%	53.1%	27.5%	1.9%	12.7%	0.7%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

EB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
12 PM	0	11	7	0	6	0	0	0	0	0	0	0	0	0	24
12:15	0	14	10	0	2	0	0	0	0	0	0	0	0	0	26
12:30	0	8	2	0	2	0	0	0	0	0	0	0	0	1	13
12:45	0	13	6	0	4	0	0	1	0	0	0	0	0	2	26
	0	46	25	0	14	0	0	1	0	0	0	0	0	3	89
13:00	0	12	4	0	0	0	0	0	0	0	0	0	0	1	17
13:15	0	18	5	1	8	0	0	2	0	0	0	0	0	0	34
13:30	0	11	7	0	8	0	0	1	0	0	0	0	0	0	27
13:45	0	11	8	1	2	0	0	1	0	0	0	0	0	0	23
	0	52	24	2	18	0	0	4	0	0	0	0	0	1	101
14:00	0	11	7	0	6	0	0	1	0	0	0	0	0	0	25
14:15	0	16	9	0	2	0	0	0	0	0	0	0	0	0	27
14:30	0	14	5	0	2	0	0	1	0	0	0	0	0	0	22
14:45	0	25	12	1	9	0	0	0	0	0	0	0	0	0	47
	0	66	33	1	19	0	0	2	0	0	0	0	0	0	121
15:00	0	58	10	5	4	0	0	2	0	0	0	0	0	0	79
15:15	0	21	18	1	7	0	0	0	0	0	0	0	0	0	47
15:30	0	26	6	0	4	0	0	0	0	0	0	0	0	1	37
15:45	0	13	11	0	6	0	0	1	0	0	0	0	0	1	32
	0	118	45	6	21	0	0	3	0	0	0	0	0	2	195
16:00	0	16	9	0	3	0	0	0	0	0	0	0	0	1	29
16:15	0	26	16	0	7	0	0	0	0	0	0	0	0	1	50
16:30	0	28	12	0	8	0	0	0	0	0	0	0	0	0	48
16:45	0	29	14	0	7	0	0	1	0	0	0	0	0	3	54
	0	99	51	0	25	0	0	1	0	0	0	0	0	5	181
17:00	0	37	6	0	3	0	0	0	0	0	0	0	0	0	46
17:15	0	30	8	0	6	0	0	1	0	0	0	0	0	1	46
17:30	0	41	13	0	10	0	0	2	0	0	0	0	0	0	66
17:45	0	37	16	0	5	0	0	0	0	0	0	0	0	1	59
	0	145	43	0	24	0	0	3	0	0	0	0	0	2	217
18:00	0	32	9	0	4	0	0	0	0	0	0	0	0	0	45
18:15	0	14	11	0	5	0	0	0	0	0	0	0	0	1	31
18:30	0	21	8	0	2	0	0	0	0	0	0	0	0	0	31
18:45	0	14	7	0	5	0	0	0	0	0	0	0	0	1	27
	0	81	35	0	16	0	0	0	0	0	0	0	0	2	134
19:00	0	16	2	0	4	0	0	0	0	0	0	0	0	0	22
19:15	0	18	5	0	5	0	0	0	0	0	0	0	0	2	30
19:30	0	9	3	0	0	0	0	0	0	0	0	0	0	0	12
19:45	0	14	4	0	1	0	0	0	0	0	0	0	0	0	19
	0	57	14	0	10	0	0	0	0	0	0	0	0	2	83
20:00	0	15	4	0	0	0	0	0	0	0	0	0	0	1	20
20:15	0	21	3	0	4	0	0	0	0	0	0	0	0	1	29
20:30	0	10	4	0	5	0	0	0	0	0	0	0	0	0	19
20:45	0	16	6	0	10	0	0	0	0	0	0	0	0	0	32
	0	62	17	0	19	0	0	0	0	0	0	0	0	2	100
21:00	0	12	8	0	2	0	0	0	0	0	0	0	0	0	22
21:15	0	12	1	0	3	0	0	0	0	0	0	0	0	0	16
21:30	0	8	4	0	1	0	0	0	0	0	0	0	0	0	13
21:45	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
	0	41	14	0	6	0	0	0	0	0	0	0	0	0	61
22:00	0	4	3	0	0	0	0	0	0	0	0	0	0	0	7
22:15	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
22:30	0	4	3	0	1	0	0	0	0	0	0	0	0	0	8
22:45	0	7	2	0	1	0	0	0	0	0	0	0	0	0	10
	0	19	9	0	2	0	0	0	0	0	0	0	0	0	30
23:00	0	4	2	0	1	0	0	0	0	0	0	0	0	0	7
23:15	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
23:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
23:45	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
	0	12	5	0	3	0	0	0	0	0	0	0	0	0	20
Total	0	798	315	9	177	0	0	14	0	0	0	0	0	19	1332
Percent	0.0%	59.9%	23.6%	0.7%	13.3%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	
Grand Total	3	1020	430	17	230	3	0	18	0	0	0	0	0	29	1750
Percent	0.2%	58.3%	24.6%	1.0%	13.1%	0.2%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	

All Traffic Data
_15105 SE 17th St._
Vancouver, WA. 98683
_503-833-2740_

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

WB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
09/13/18	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
00:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	6	1	0	1	0	0	0	0	0	0	0	0	0	8
	0	7	2	0	1	0	0	0	0	0	0	0	0	0	10
04:00	0	1	2	0	0	0	0	1	0	0	0	0	0	0	4
04:15	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
04:30	0	4	2	1	0	0	0	0	0	0	0	0	0	0	7
04:45	0	8	2	0	1	0	0	0	0	0	0	0	0	0	11
	0	15	8	1	1	0	0	1	0	0	0	0	0	0	26
05:00	0	12	2	0	2	0	0	0	0	0	0	0	0	0	16
05:15	0	14	6	0	2	0	0	0	0	0	0	0	0	0	22
05:30	0	14	4	0	4	0	0	0	0	0	0	0	0	0	22
05:45	0	12	7	0	3	0	0	0	0	0	0	0	0	0	22
	0	52	19	0	11	0	0	0	0	0	0	0	0	0	82
06:00	0	17	3	0	3	0	0	0	0	0	0	0	0	0	23
06:15	0	17	6	0	1	0	0	0	0	0	0	0	0	0	24
06:30	0	13	12	0	1	0	0	1	0	0	0	0	0	0	27
06:45	0	26	9	0	1	0	0	0	0	0	0	0	0	0	36
	0	73	30	0	6	0	0	1	0	0	0	0	0	0	110
07:00	0	23	5	0	3	0	0	0	0	0	0	0	0	0	31
07:15	0	35	7	0	2	0	0	0	0	0	0	0	0	0	44
07:30	0	29	4	0	4	0	0	1	0	0	0	0	0	2	40
07:45	1	50	11	2	1	0	0	0	0	0	0	0	0	3	68
	1	137	27	2	10	0	0	1	0	0	0	0	0	5	183
08:00	0	57	5	0	3	0	0	0	0	0	0	0	0	1	66
08:15	0	28	8	0	0	0	0	1	0	0	0	0	0	0	37
08:30	0	21	8	0	0	0	0	2	0	0	0	0	0	1	32
08:45	0	21	4	0	1	0	0	0	0	0	0	0	0	0	26
	0	127	25	0	4	0	0	3	0	0	0	0	0	2	161
09:00	0	10	3	0	1	0	0	0	0	0	0	0	0	0	14
09:15	1	22	9	0	3	1	0	1	0	0	0	0	0	0	37
09:30	0	19	4	0	0	0	0	0	0	0	0	0	0	0	23
09:45	0	15	6	0	3	0	0	0	0	0	0	0	0	1	25
	1	66	22	0	7	1	0	1	0	0	0	0	0	1	99
10:00	0	22	7	0	5	0	0	0	0	0	0	0	0	0	34
10:15	0	11	5	1	2	0	0	0	0	0	0	0	0	0	19
10:30	0	17	3	0	0	0	0	0	0	0	0	0	0	0	20
10:45	0	17	8	0	3	0	0	0	0	0	0	0	0	0	28
	0	67	23	1	10	0	0	0	0	0	0	0	0	0	101
11:00	0	21	2	0	1	0	0	0	0	0	0	0	0	0	24
11:15	0	10	7	0	0	0	0	0	0	0	0	0	0	0	17
11:30	0	14	3	0	1	0	0	0	0	0	0	0	0	0	18
11:45	0	11	5	0	0	0	0	0	0	0	0	0	0	1	17
	0	56	17	0	2	0	0	0	0	0	0	0	0	1	76
Total	2	610	174	4	52	1	0	7	0	0	0	0	0	9	859
Percent	0.2%	71.0%	20.3%	0.5%	6.1%	0.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	

All Traffic Data
_15105 SE 17th St._
Vancouver, WA. 98683
_503-833-2740_

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

WB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
12 PM	0	9	5	0	0	0	0	0	0	0	0	0	0	0	14
12:15	0	16	1	0	1	0	0	0	0	0	0	0	0	0	18
12:30	0	19	7	1	2	0	0	1	0	0	0	0	0	0	30
12:45	0	17	4	0	2	0	0	0	0	0	0	0	0	0	23
	0	61	17	1	5	0	0	1	0	0	0	0	0	0	85
13:00	0	18	5	0	3	0	0	2	0	0	0	0	0	0	28
13:15	0	15	7	1	2	0	0	0	0	0	0	0	0	1	26
13:30	0	12	5	0	0	0	0	0	0	0	0	0	0	0	17
13:45	0	12	3	0	0	0	0	0	0	0	0	0	0	0	15
	0	57	20	1	5	0	0	2	0	0	0	0	0	1	86
14:00	0	17	3	0	2	0	0	1	0	0	0	0	0	0	23
14:15	0	22	4	0	2	0	0	0	0	0	0	0	0	0	28
14:30	1	36	7	0	2	1	0	0	0	0	0	0	0	0	47
14:45	0	22	8	0	4	0	0	0	0	0	0	0	0	0	34
	1	97	22	0	10	1	0	1	0	0	0	0	0	0	132
15:00	0	14	3	0	2	0	0	2	0	0	0	0	0	0	21
15:15	0	23	5	0	2	0	0	0	0	0	0	0	0	1	31
15:30	0	14	3	0	2	0	0	0	0	0	0	0	0	0	19
15:45	0	13	5	3	3	1	0	0	0	0	0	0	0	1	26
	0	64	16	3	9	1	0	2	0	0	0	0	0	2	97
16:00	0	19	3	2	2	0	0	0	0	0	0	0	0	2	28
16:15	0	23	6	0	1	0	0	0	0	0	0	0	0	0	30
16:30	0	24	9	0	3	0	0	1	0	0	0	0	0	0	37
16:45	0	21	2	0	2	0	0	0	0	0	0	0	0	0	25
	0	87	20	2	8	0	0	1	0	0	0	0	0	2	120
17:00	0	21	3	0	2	0	0	0	0	0	0	0	0	0	26
17:15	0	25	6	0	0	0	0	1	0	0	0	0	0	1	33
17:30	0	13	6	0	5	0	0	1	0	0	0	0	0	0	25
17:45	0	14	2	0	0	0	0	0	0	0	0	0	0	1	17
	0	73	17	0	7	0	0	2	0	0	0	0	0	2	101
18:00	1	22	6	0	1	0	0	0	0	0	0	0	0	0	30
18:15	0	16	6	0	1	0	0	0	0	0	0	0	0	0	23
18:30	0	23	2	0	0	0	0	0	0	0	0	0	0	0	25
18:45	0	13	6	0	0	0	0	0	0	0	0	0	0	0	19
	1	74	20	0	2	0	0	0	0	0	0	0	0	0	97
19:00	0	16	3	0	0	0	0	0	0	0	0	0	0	1	20
19:15	1	7	2	0	1	0	0	0	0	0	0	0	0	0	11
19:30	0	11	1	0	1	0	0	0	0	0	0	0	0	0	13
19:45	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
	1	37	8	0	2	0	0	0	0	0	0	0	0	1	49
20:00	1	7	2	0	0	0	0	0	0	0	0	0	0	1	11
20:15	0	15	2	0	0	0	0	0	0	0	0	0	0	0	17
20:30	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
20:45	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
	1	39	7	0	0	0	0	0	0	0	0	0	0	1	48
21:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5
21:15	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
21:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
21:45	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	0	14	3	0	0	0	0	0	0	0	0	0	0	0	17
22:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
22:15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
22:30	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
22:45	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
	0	18	2	0	0	0	0	0	0	0	0	0	0	0	20
23:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
Total	4	623	154	7	48	2	0	9	0	0	0	0	0	9	856
Percent	0.5%	72.8%	18.0%	0.8%	5.6%	0.2%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	
Grand Total	6	1233	328	11	100	3	0	16	0	0	0	0	0	18	1715
Percent	0.3%	71.9%	19.1%	0.6%	5.8%	0.2%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	

All Traffic Data
15105 SE 17th St.
Vancouver, WA. 98683
503-833-2740

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

EB, WB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
09/13/18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
00:15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
00:30	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
00:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
01:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
02:30	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
02:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:45	0	6	1	0	1	0	0	0	0	0	0	0	0	0	8
	0	10	2	0	1	0	0	0	0	0	0	0	0	0	13
04:00	0	1	3	0	0	0	0	1	0	0	0	0	0	0	5
04:15	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
04:30	0	5	2	1	1	0	0	0	0	0	0	0	0	0	9
04:45	0	8	2	0	1	0	0	0	0	0	0	0	0	0	11
	0	16	9	1	2	0	0	1	0	0	0	0	0	0	29
05:00	0	13	3	0	3	0	0	0	0	0	0	0	0	0	19
05:15	0	15	6	0	4	0	0	0	0	0	0	0	0	0	25
05:30	0	15	4	0	4	0	0	0	0	0	0	0	0	0	23
05:45	0	15	7	0	3	0	0	0	0	0	0	0	0	0	25
	0	58	20	0	14	0	0	0	0	0	0	0	0	0	92
06:00	0	17	4	0	3	0	0	0	0	0	0	0	0	0	24
06:15	0	18	7	0	1	0	0	0	0	0	0	0	0	1	27
06:30	0	18	12	0	3	0	0	1	0	0	0	0	0	0	34
06:45	0	32	10	0	1	0	0	1	0	0	0	0	0	0	44
	0	85	33	0	8	0	0	2	0	0	0	0	0	1	129
07:00	0	27	9	5	3	0	0	0	0	0	0	0	0	0	44
07:15	0	39	13	2	6	0	0	0	0	0	0	0	0	0	60
07:30	2	34	6	0	4	0	0	1	0	0	0	0	0	2	49
07:45	1	60	12	2	1	0	0	0	0	0	0	0	0	5	81
	3	160	40	9	14	0	0	1	0	0	0	0	0	7	234
08:00	1	79	15	0	7	1	0	0	0	0	0	0	0	2	105
08:15	0	53	17	0	4	0	0	2	0	0	0	0	0	1	77
08:30	0	30	15	0	1	0	0	3	0	0	0	0	0	2	51
08:45	0	27	13	0	3	0	0	0	0	0	0	0	0	0	43
	1	189	60	0	15	1	0	5	0	0	0	0	0	5	276
09:00	0	15	8	1	3	0	0	0	0	0	0	0	0	0	27
09:15	1	25	16	0	7	1	0	1	0	0	0	0	0	1	52
09:30	0	26	11	0	2	0	0	0	0	0	0	0	0	0	39
09:45	0	27	6	0	5	0	0	0	0	0	0	0	0	1	39
	1	93	41	1	17	1	0	1	0	0	0	0	0	2	157
10:00	0	32	13	0	7	0	0	0	0	0	0	0	0	0	52
10:15	0	20	14	1	2	0	0	0	0	0	0	0	0	0	37
10:30	0	27	7	0	4	0	0	0	0	0	0	0	0	0	38
10:45	0	28	10	0	6	0	0	0	0	0	0	0	0	1	45
	0	107	44	1	19	0	0	0	0	0	0	0	0	1	172
11:00	0	29	11	0	3	1	0	0	0	0	0	0	0	0	44
11:15	0	21	11	0	1	1	0	1	0	0	0	0	0	1	36
11:30	0	20	5	0	7	0	0	0	0	0	0	0	0	0	32
11:45	0	24	11	0	3	0	0	0	0	0	0	0	0	2	40
	0	94	38	0	14	2	0	1	0	0	0	0	0	3	152
Total	5	832	289	12	105	4	0	11	0	0	0	0	0	19	1277
Percent	0.4%	65.2%	22.6%	0.9%	8.2%	0.3%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	

All Traffic Data
_15105 SE 17th St._
Vancouver, WA. 98683
_503-833-2740_

Site Code: 1
NE Lockwood Creek Rd W-O NE 23rd Av

EB, WB

Start Time	Bikes	Cars & Trailer	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total
12 PM	0	20	12	0	6	0	0	0	0	0	0	0	0	0	38
12:15	0	30	11	0	3	0	0	0	0	0	0	0	0	0	44
12:30	0	27	9	1	4	0	0	1	0	0	0	0	0	1	43
12:45	0	30	10	0	6	0	0	1	0	0	0	0	0	2	49
	0	107	42	1	19	0	0	2	0	0	0	0	0	3	174
13:00	0	30	9	0	3	0	0	2	0	0	0	0	0	1	45
13:15	0	33	12	2	10	0	0	2	0	0	0	0	0	1	60
13:30	0	23	12	0	8	0	0	1	0	0	0	0	0	0	44
13:45	0	23	11	1	2	0	0	1	0	0	0	0	0	0	38
	0	109	44	3	23	0	0	6	0	0	0	0	0	2	187
14:00	0	28	10	0	8	0	0	2	0	0	0	0	0	0	48
14:15	0	38	13	0	4	0	0	0	0	0	0	0	0	0	55
14:30	1	50	12	0	4	1	0	1	0	0	0	0	0	0	69
14:45	0	47	20	1	13	0	0	0	0	0	0	0	0	0	81
	1	163	55	1	29	1	0	3	0	0	0	0	0	0	253
15:00	0	72	13	5	6	0	0	4	0	0	0	0	0	0	100
15:15	0	44	23	1	9	0	0	0	0	0	0	0	0	1	78
15:30	0	40	9	0	6	0	0	0	0	0	0	0	0	1	56
15:45	0	26	16	3	9	1	0	1	0	0	0	0	0	2	58
	0	182	61	9	30	1	0	5	0	0	0	0	0	4	292
16:00	0	35	12	2	5	0	0	0	0	0	0	0	0	3	57
16:15	0	49	22	0	8	0	0	0	0	0	0	0	0	1	80
16:30	0	52	21	0	11	0	0	1	0	0	0	0	0	0	85
16:45	0	50	16	0	9	0	0	1	0	0	0	0	0	3	79
	0	186	71	2	33	0	0	2	0	0	0	0	0	7	301
17:00	0	58	9	0	5	0	0	0	0	0	0	0	0	0	72
17:15	0	55	14	0	6	0	0	2	0	0	0	0	0	2	79
17:30	0	54	19	0	15	0	0	3	0	0	0	0	0	0	91
17:45	0	51	18	0	5	0	0	0	0	0	0	0	0	2	76
	0	218	60	0	31	0	0	5	0	0	0	0	0	4	318
18:00	1	54	15	0	5	0	0	0	0	0	0	0	0	0	75
18:15	0	30	17	0	6	0	0	0	0	0	0	0	0	1	54
18:30	0	44	10	0	2	0	0	0	0	0	0	0	0	0	56
18:45	0	27	13	0	5	0	0	0	0	0	0	0	0	1	46
	1	155	55	0	18	0	0	0	0	0	0	0	0	2	231
19:00	0	32	5	0	4	0	0	0	0	0	0	0	0	1	42
19:15	1	25	7	0	6	0	0	0	0	0	0	0	0	2	41
19:30	0	20	4	0	1	0	0	0	0	0	0	0	0	0	25
19:45	0	17	6	0	1	0	0	0	0	0	0	0	0	0	24
	1	94	22	0	12	0	0	0	0	0	0	0	0	3	132
20:00	1	22	6	0	0	0	0	0	0	0	0	0	0	2	31
20:15	0	36	5	0	4	0	0	0	0	0	0	0	0	1	46
20:30	0	19	5	0	5	0	0	0	0	0	0	0	0	0	29
20:45	0	24	8	0	10	0	0	0	0	0	0	0	0	0	42
	1	101	24	0	19	0	0	0	0	0	0	0	0	3	148
21:00	0	15	10	0	2	0	0	0	0	0	0	0	0	0	27
21:15	0	17	2	0	3	0	0	0	0	0	0	0	0	0	22
21:30	0	11	4	0	1	0	0	0	0	0	0	0	0	0	16
21:45	0	12	1	0	0	0	0	0	0	0	0	0	0	0	13
	0	55	17	0	6	0	0	0	0	0	0	0	0	0	78
22:00	0	7	3	0	0	0	0	0	0	0	0	0	0	0	10
22:15	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
22:30	0	9	4	0	1	0	0	0	0	0	0	0	0	0	14
22:45	0	12	3	0	1	0	0	0	0	0	0	0	0	0	16
	0	37	11	0	2	0	0	0	0	0	0	0	0	0	50
23:00	0	5	4	0	1	0	0	0	0	0	0	0	0	0	10
23:15	0	4	3	0	1	0	0	0	0	0	0	0	0	0	8
23:30	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
23:45	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
	0	14	7	0	3	0	0	0	0	0	0	0	0	0	24
Total	4	1421	469	16	225	2	0	23	0	0	0	0	0	28	2188
Percent	0.2%	64.9%	21.4%	0.7%	10.3%	0.1%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	
Grand Total	9	2253	758	28	330	6	0	34	0	0	0	0	0	47	3465
Percent	0.3%	65.0%	21.9%	0.8%	9.5%	0.2%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	

Appendix B

In-Process Project Trips

Table 4A: Future 2009 PM Peak Hour Background Traffic Signal Warrant Analysis for E 4th Street/La Center Road

Traffic Signal Warrant	Criteria Volumes (Veh/Hr)		Estimated Future Volumes (Veh/Hr)		*Warrant Met?*
	Major Street	**Minor Street**	**Major Street**	**Minor Street**	
1. Minimum Volume	350	105	777	193	**Yes**
2. Interruption of Continuous Flow	525	53	777	193	**Yes**
3. Peak Hour Volumes	1110	75	1110	276	**Yes**

**For Warrants 1 and 2, the estimated 8th highest future volumes was assumed to be 70 percent of the PM Peak Hour volume*

SITE-GENERATED TRAFFIC VOLUMES

The applicant is proposing to develop approximately 26.0 acres of land located north of NW Pacific Highway and south of NW Bolen Street, between the La Center west city limits and approximately NW 15th Street. The proposed site will contain 100 single-family homes. It should be noted that there are 6 existing single-family homes on the site that will be removed during development. Trips from the 6 existing homes already exist on the surrounding roadway network. Therefore, the **net new** trips generated by this development was computed based on 94 single family homes (100 proposed home lots minus 6 existing homes) because this represents the additional trips added to the surrounding roadway network. The estimated vehicle trips generated by the proposed Highland Terrace subdivision was computed based on standard trip generation rates for Single Family Detached Housing *(ITE Land Use Code 210)* presented in the ***ITE Trip Generation Report (7th Edition.)*** As shown in ***Table 5***, it is estimated that based on these rates, this development will generate approximately 900 new vehicle trips throughout a typical weekday, including 70 vehicle trips during the AM peak hour and 95 vehicle trips during the PM peak hour.

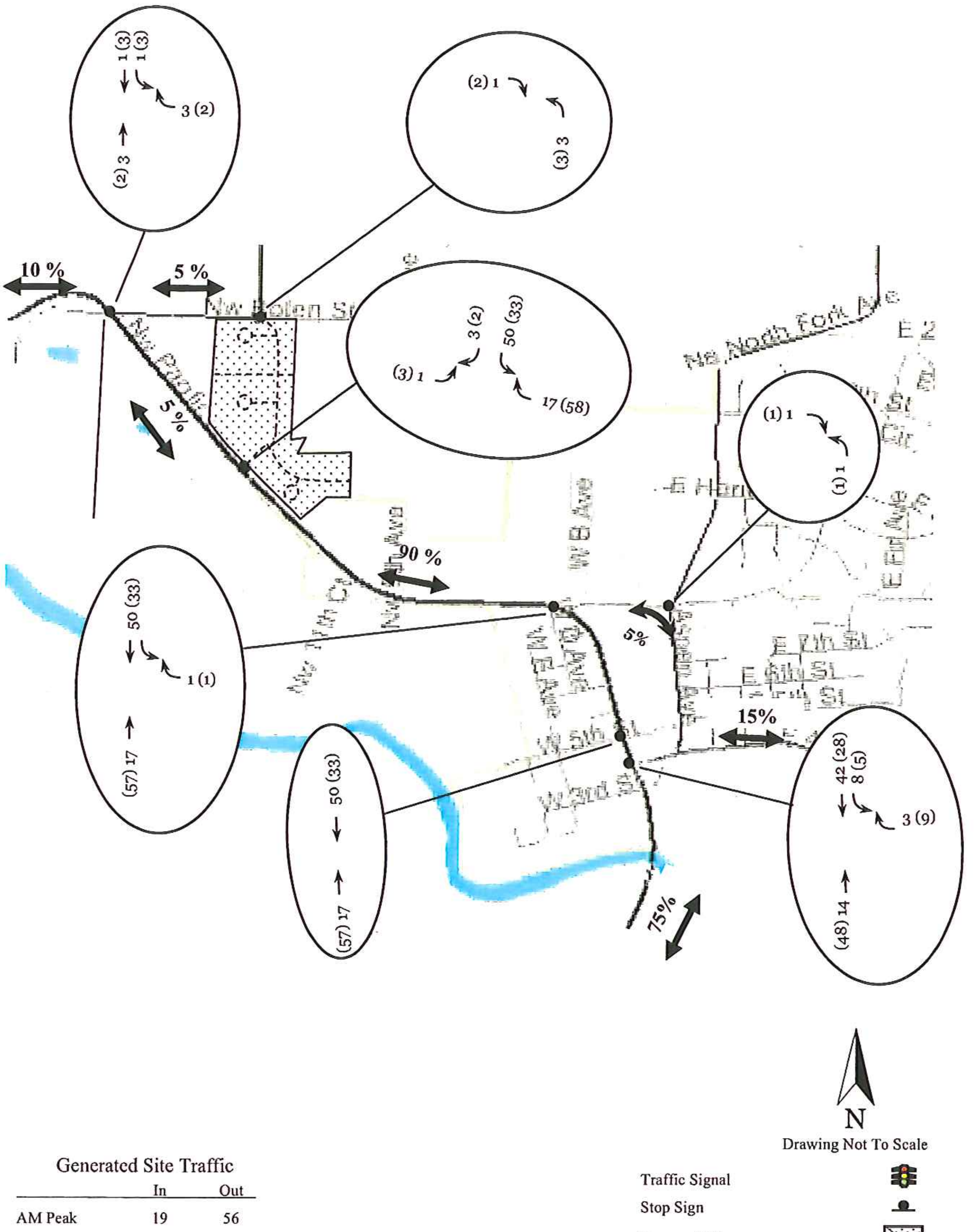
Table 5: Estimate of Weekday Trip Generation by Full Buildout of Highland Terrace Subdivision

ITE Land Use Code 210	**Daily Trips**	**AM Peak Hour**			**PM Peak Hour**		
		Total	**In**	**Out**	**Total**	**In**	**Out**
Highland Terrace Subdivision: 100 New Homes	957	75	19	56	101	64	37
6 Existing Homes	-57	-5	-1	-4	-6	-4	-2
Net New Vehicle Trips	900	70	18	52	95	60	35

MITIGATION

The intersection of La Center Road/E. 4th Street is scheduled for construction of a traffic signal and intersection improvements as part of the City of La Center Transportation Capital Facilities Plan (2004 Update). Based on future 2009 traffic conditions, the intersection will operate at LOS F and warrants for a traffic signal are met without development of Highland Terrace. The traffic signal and intersection improvements are listed as Traffic Impact Fee (TIF) financed projects. This fee is based on the number of ***new*** PM Peak Hour Trips generated by a proposed development. Therefore the net PM peak hour trips generated by Highland Terrace is computed based on 94 single family homes (100 new homes minus the 6 existing homes). TIF charges for the development will be computed based on a total of 95 ***new*** PM Peak hour trips (see ***Table 5)***.

Figure 7: Weekday Peak Hour Traffic Volumes Generated By Highland Terrace Subdivision



Generated Site Traffic

	In	Out
AM Peak	19	56
PM Peak	64	37

Traffic Signal
Stop Sign
Proposed Site
Proposed Roadway
AM(PM) Peak Hour Volumes

CTS ENGINEERS

OR06.026.T01 Highland Terrace

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. Figure 1 depicts the existing AM & PM peak hour traffic volumes.

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. The in-process traffic included the Sunrise Terrace development as referenced according to City staff and is shown on Figure 2. The year 2020 background traffic volumes are illustrated in Figure 3.

The year 2020 total traffic scenario (background plus site generated traffic) is presented in Figure 6.

VEHICULAR TRIP GENERATION

Trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation manual 9th edition (year 2012) were utilized to estimate the site's trip generation. The trip generation is summarized in Table 1.

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)	99							
Generation Rate [1]		9.52	0.75	25%	75%	1.00	63%	37%
Site Trips		**942**	**74**	19	55	**99**	62	37
Apartment (#220)	306							
Generation Rate [1]		6.65	0.51	20%	80%	0.62	65%	35%
Site Trips		**2,035**	**156**	31	125	**190**	124	66
Site Total Trips		**2,977**	**230**	**50**	**180**	**289**	**186**	**103**

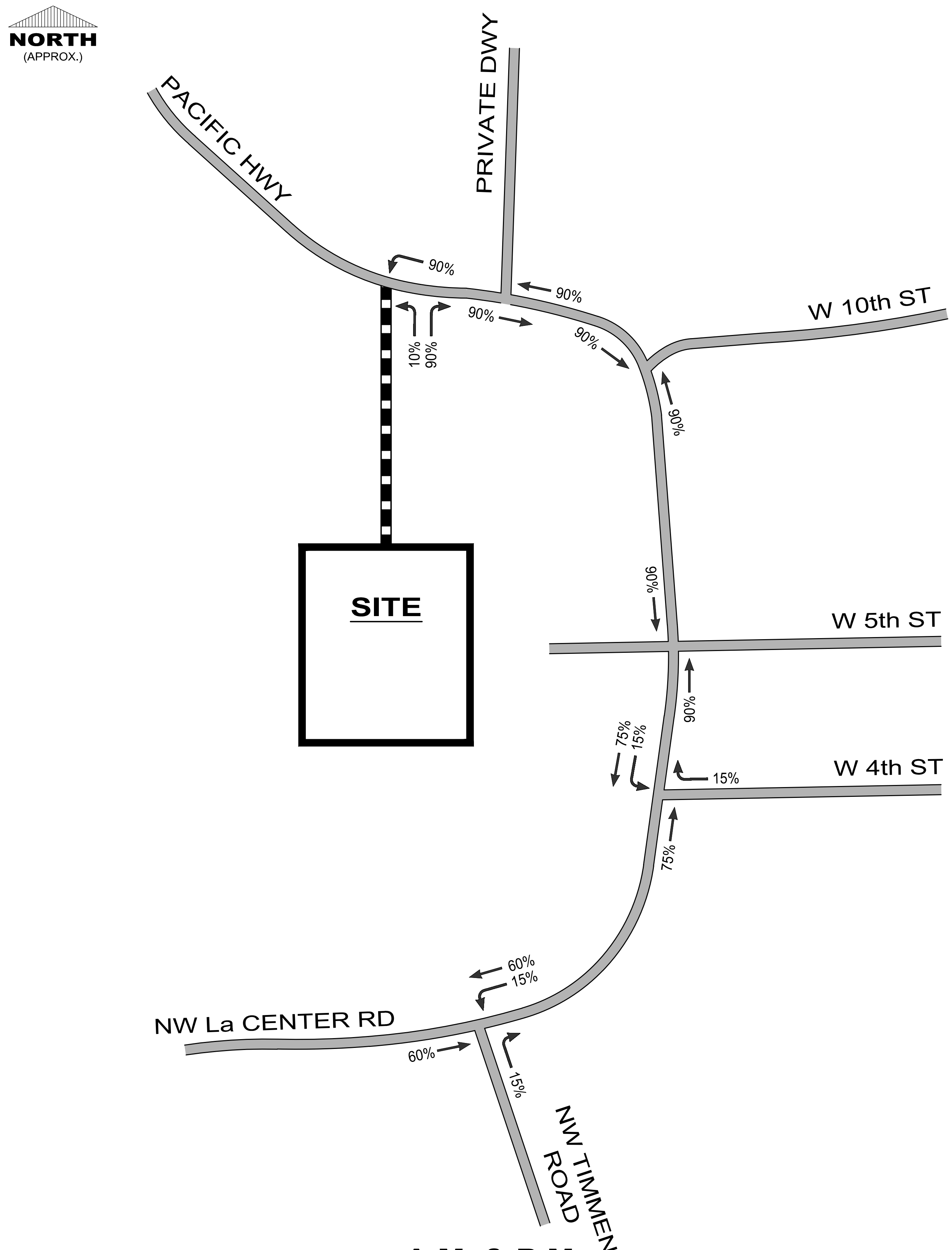
[1] Source: *Trip Generation*, 9th Edition, ITE, 2012, average rates.

The proposed development is expected to generate a net total 2,977 daily trips, 230 AM peak hour trips, and 289 PM peak hour trips.

The trip distribution was based on the existing traffic counts, intersection traffic control, site access location, and engineering judgment. Figure 4 presents the trip distribution results and Figure 5 displays the trip assignments.

CAPACITY ANALYSIS

Capacity analyses were performed to determine the levels of service for the weekday peak hours. Synchro v9.1 software based on the year 2010 Highway Capacity Manual



A.M. & P.M.

(NOT TO SCALE)

FILENAME: 17-13 Riverside.dwg

PLOT DATE: May 01, 2017

CHARBONNEAU ENGINEERING LLC

PROJECT: 17-13

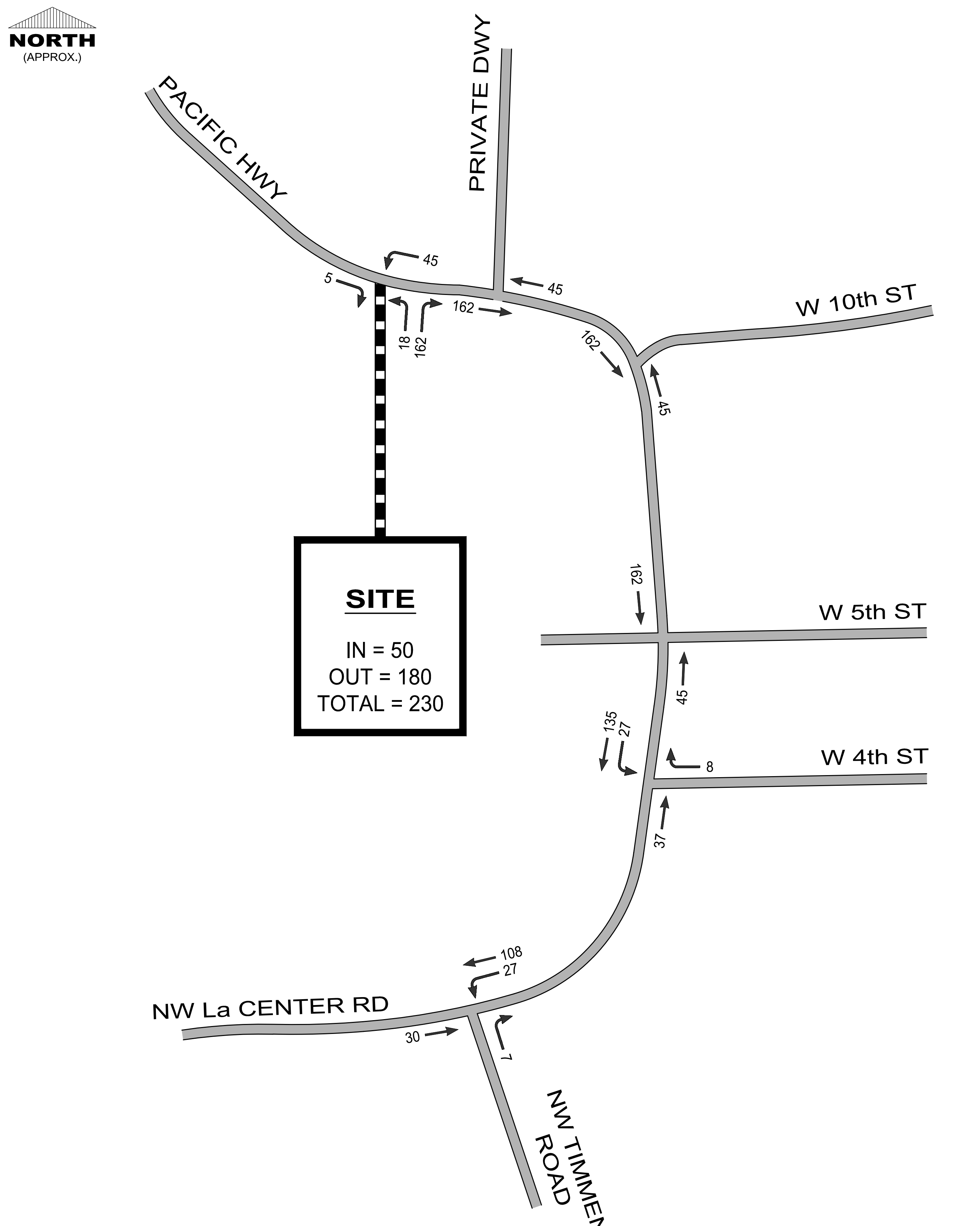
NOTE:
TRIP DISTRIBUTION BASED ON EXISTING TRAFFIC PATTERNS AND ENGINEERING JUDGMENT.

RIVERSIDE ESTATES SUBDIVISION

TRIP DISTRIBUTION

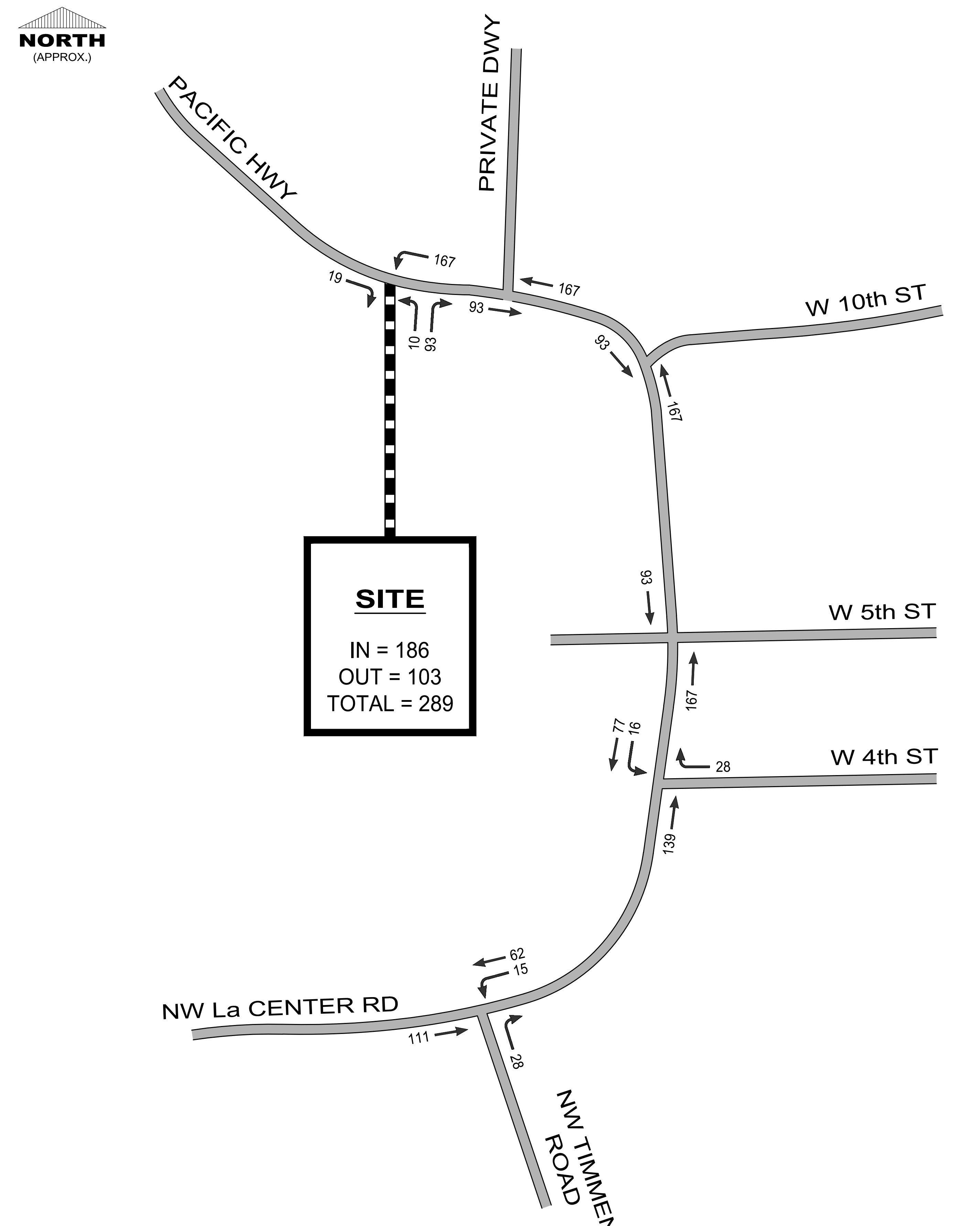
A.M. AND P.M. PEAK HOUR

FIGURE 4



A.M.

(NOT TO SCALE)



P.M.

(NOT TO SCALE)

FILENAME: 17-13 Riverside.dwg

PLOT DATE: May 01, 2017

CHARBONNEAU ENGINEERING LLC

PROJECT: 17-13

NOTE:
TRIP ASSIGNMENT BASED ON SINGLE FAMILY.

RIVERSIDE ESTATES SUBDIVISION

TRIP ASSIGNMENT

A.M. AND P.M. PEAK HOUR

FIGURE 5

Site Trips

Trip Generation

The proposed Stephens Hillside Farm Subdivision will construct an 85-lot subdivision, removing 3 existing single-family houses while maintaining 1 existing house for a net addition of 81 houses. To estimate the number of trips that will be generated by the proposed development, trip rates from the *TRIP GENERATION MANUAL* were used. Data from land-use code 210, *Single-Family Detached Housing*, was used to estimate the existing and proposed development's trip generation based on the number of dwelling units.

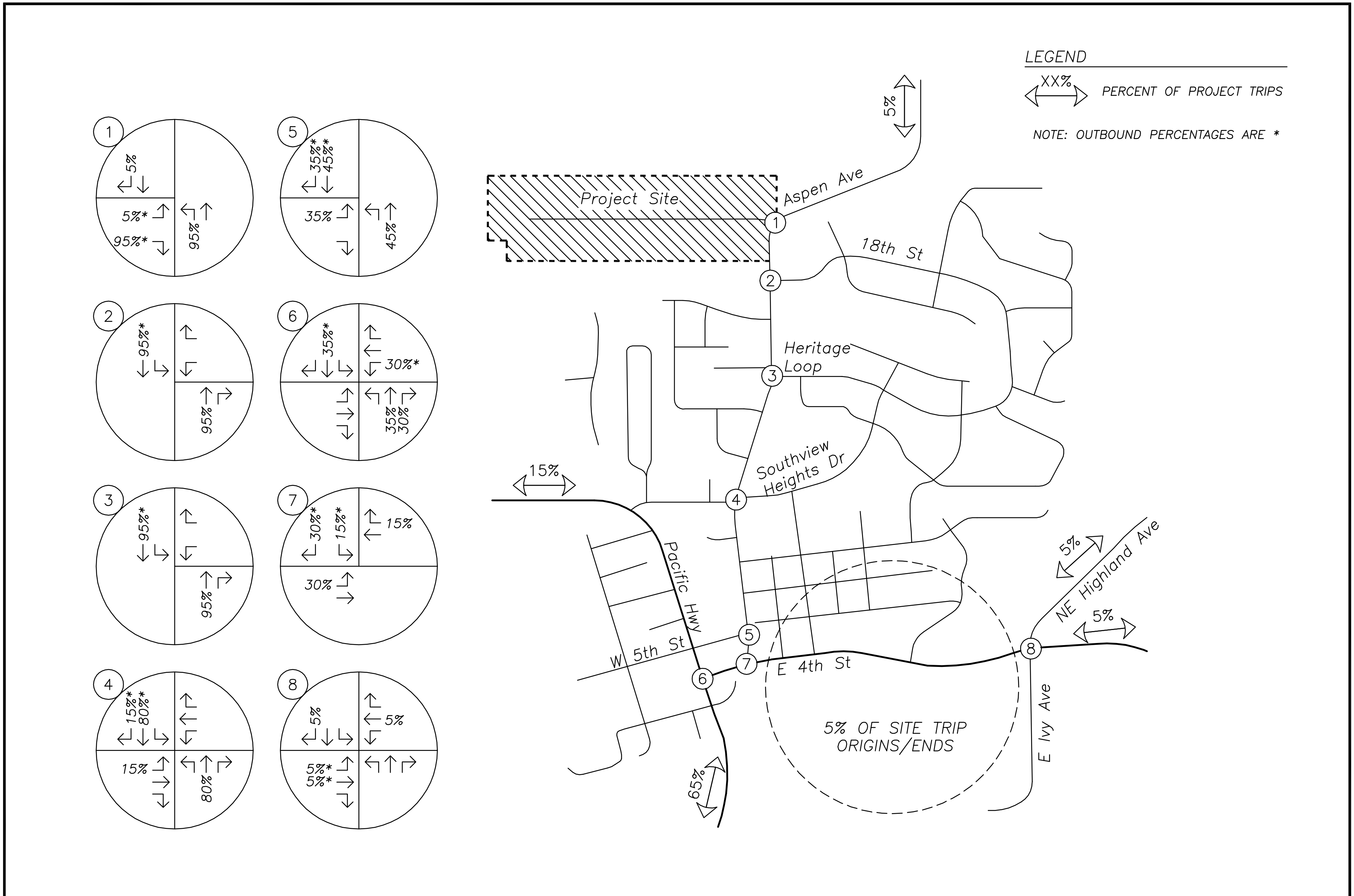
The trip generation calculations show that the proposed development is projected to generate an additional 60 morning peak hour and 80 evening peak hour site trips. The trip generation estimates of the proposed development are summarized in Table 2 below. Detailed trip generation calculations are included in the technical appendix to this report.

Table 2 – Trip Generation Summary

	ITE Code	Size	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Homes	210	4 units	1	2	3	3	1	4	38
Proposed Development	210	85 units	16	47	63	53	31	84	802
Total		**81 units**	**15**	**45**	**60**	**50**	**30**	**80**	**764**

Trip Distribution

The trip distribution of site trips to/from the project site was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study intersections.



SITE TRIP DISTRIBUTION
Inbound & Outbound Percentages – Site Trips
AM & PM Peak Hours

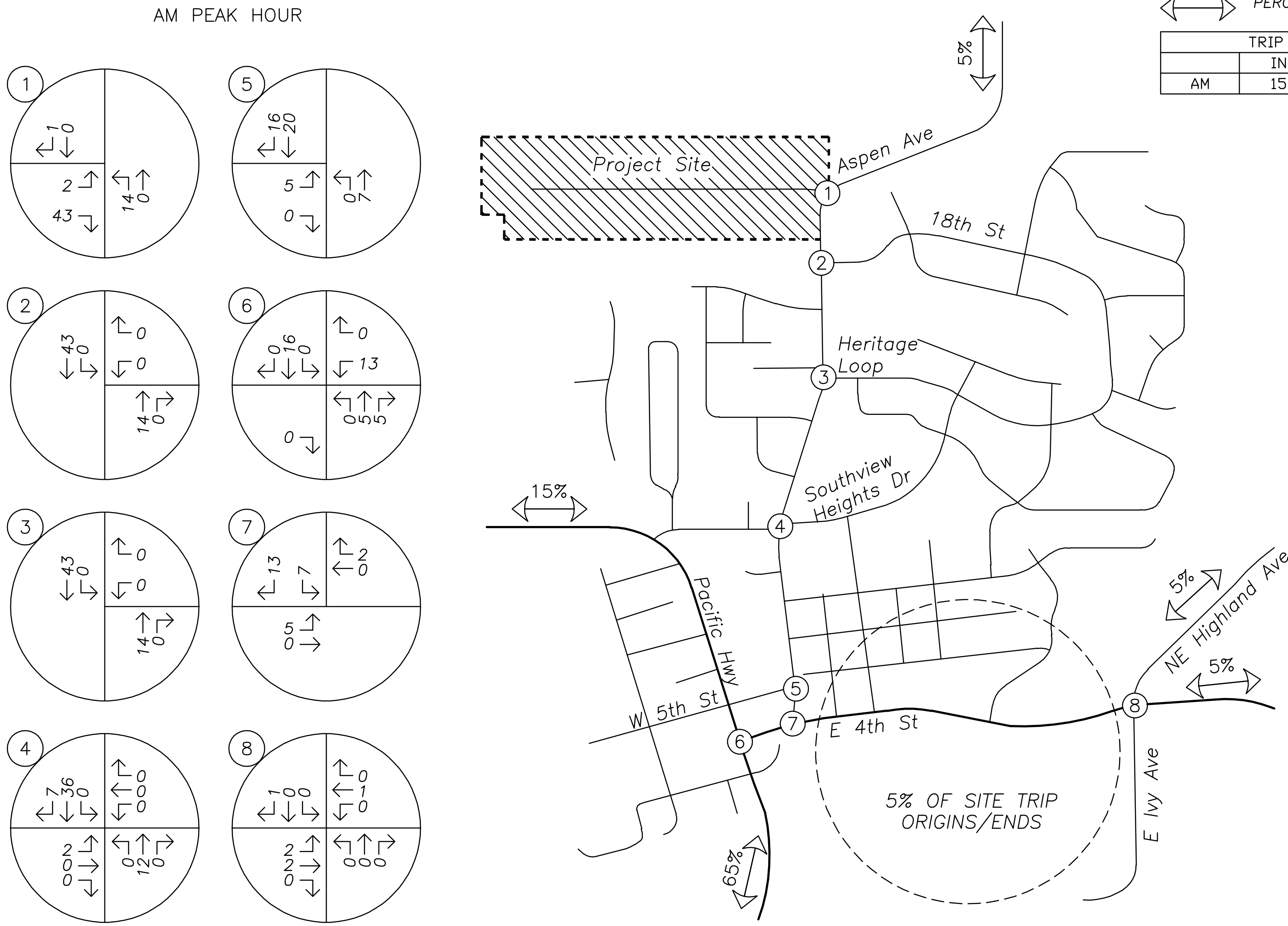
FIGURE 4

LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
AM	15	45	60

AM PEAK HOUR

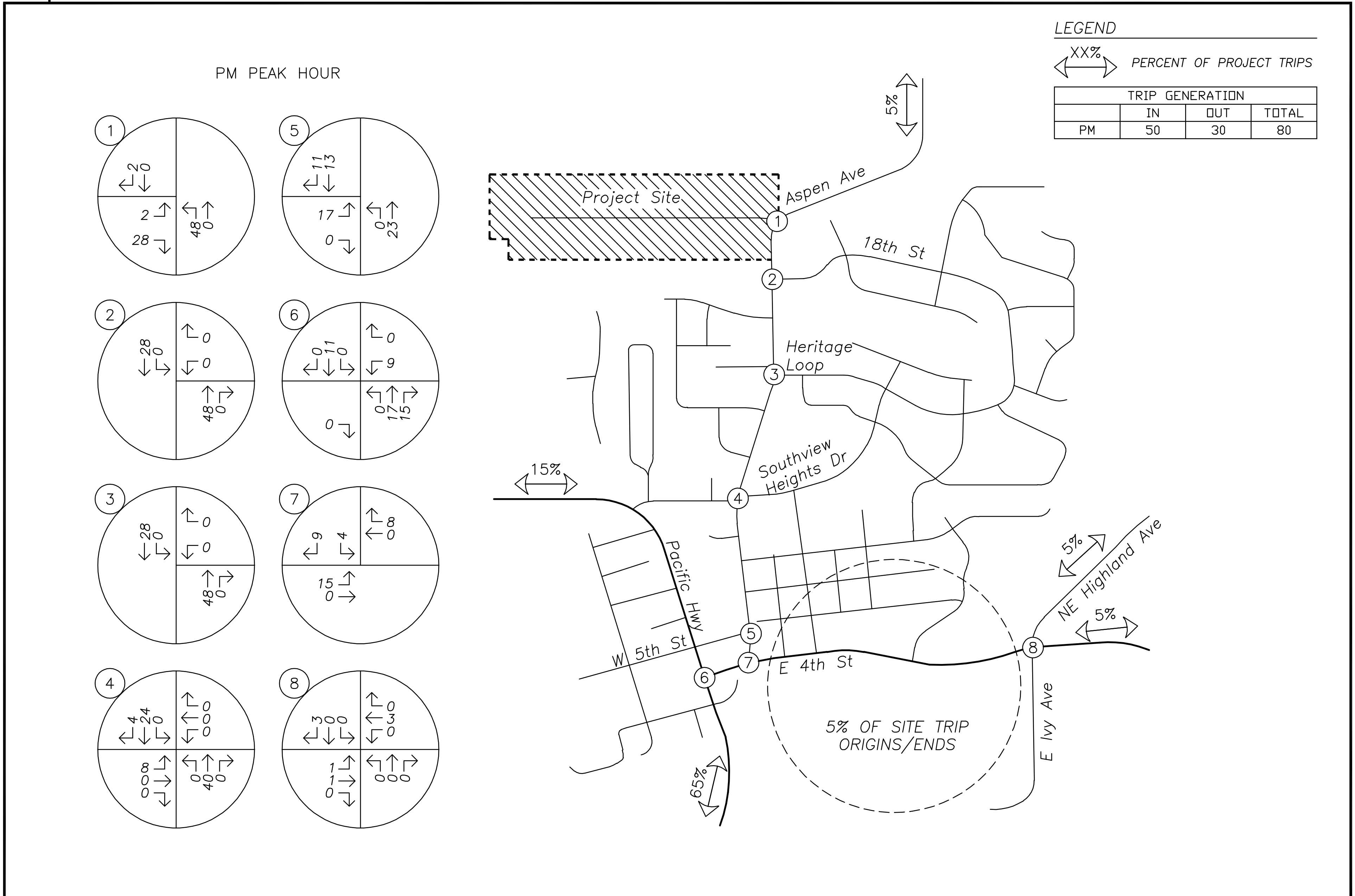


no scale

SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
AM Peak Hour

FIGURE 5

Stephen's Hillside Farm Subdivision



SITE TRIP ASSIGNMENT
Proposed Development Plan – Site Trips
PM Peak Hour

no scale

FIGURE 6

PAGE 13

TRIP GENERATION & DISTRIBUTION

TRIP GENERATION

The proposed development will construct 120 single-family detached houses and the remove one existing single-family detached home and existing farmland. To estimate the number of trips that will be generated by the proposed development, trip rates from the *TRIP GENERATION MANUAL*, Ninth Edition, published by the Institute of Transportation Engineers (ITE), were used. Data from land-use code 210, *Single-Family Detached Housing*, was used to estimate the proposed development's trip generation based on the number of dwelling units.

The trip generation calculations show that the proposed development, minus the existing single-family home, is projected to generate a total of 89 trips during the morning peak hour, with 23 trips entering and 66 trips exiting the site. During the evening peak hour, the property is projected to generate a total of 119 trips with 75 entering and 44 exiting the site. During a typical weekday, the site is projected to generate total of 1,132 daily trips, with half entering and half exiting the site.

The trip generation estimates are summarized in Table 1. Detailed trip generation calculations are included in the technical appendix to this report.

Table 1: Trip Generation Summary

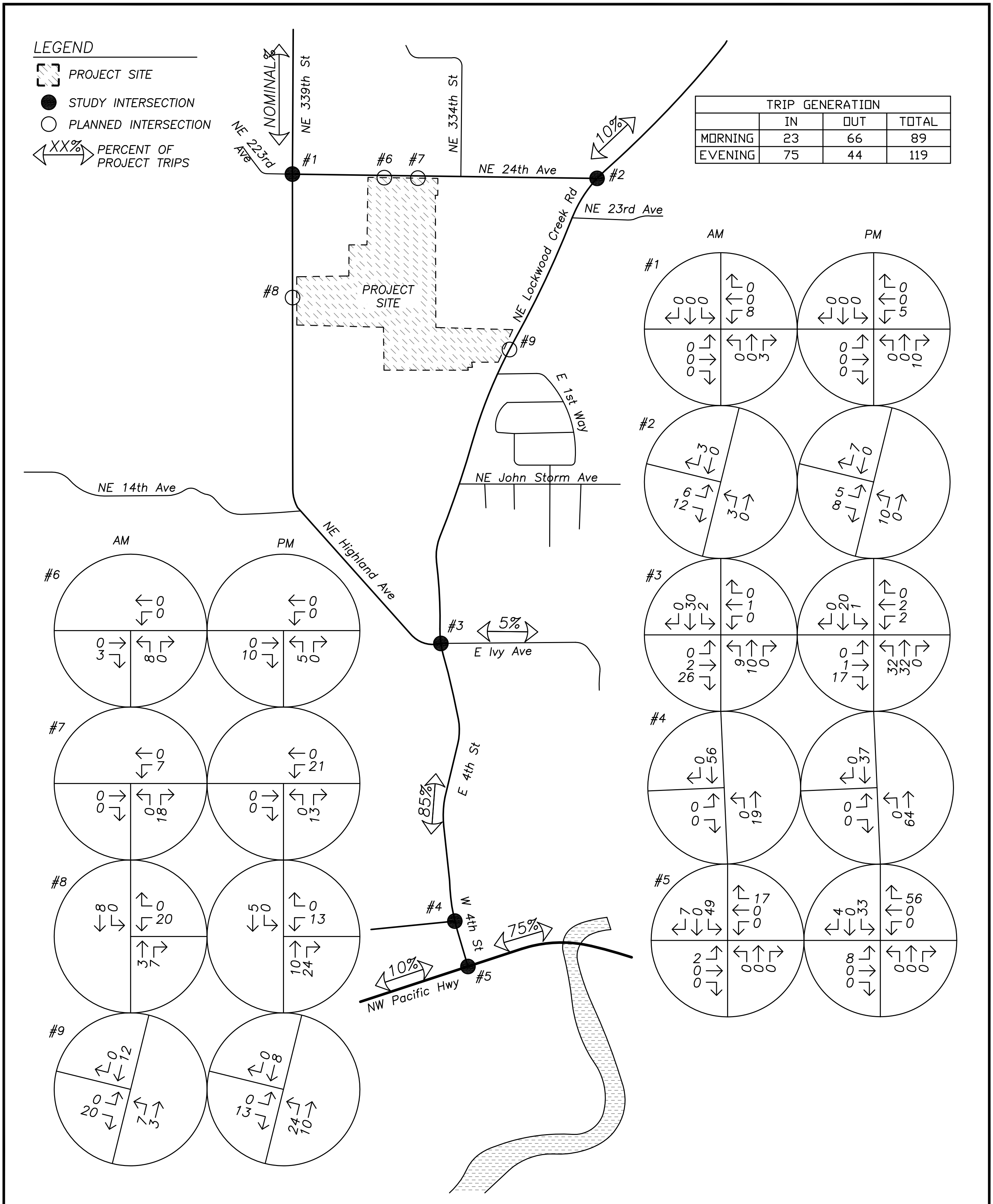
	ITE Code	Size	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Weekday Total
Proposed									
Single-Family Detached Housing	210	120 units	23	67	90	76	44	120	1,142
Existing									
Single-Family Detached Housing	*210*	*(1 unit)*	*0*	*(1)*	*(1)*	*(1)*	*0*	*(1)*	*(10)*
Total New Trips		**119 units**	**23**	**66**	**89**	**75**	**44**	**119**	**1,132**

TRIP DISTRIBUTION

The directional distribution of site trips to and from the proposed development was estimated based on locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study area intersections.

The following trip distribution was estimated and used for analysis:

- 75 percent to and from the south along NW Pacific Highway.
- 10 percent to and from the north along NW Pacific Highway.
- 10 percent to and from the east along NE Lockwood Creek Road.
- 5 percent to and from the south along E Ivy Avenue (primarily to schools).



TRIP GENERATION			
	IN	OUT	TOTAL
MORNING	23	66	89
EVENING	75	44	119

SITE TRIP DISTRIBUTION & ASSIGNMENT
AM & PM Peak Hours

no scale

FIGURE 3

PAGE 11

Appendix C
Trip Generation Calculations

ITE Trip Generation

Trip Generation Based on Weighted Average Rates

PBS Engineering and Environmental

General

Land Use Code	Elementary School (sf)		
Independent Variable	1,000 Sq Ft		
Size (X)		43.66	
ITE Land Use Code		522	

Date:	Analyst:	Project:
9/28/2018	DAH	La Center MS
		(Proj No. 0071282.000)

	In	Out	Total
Average Weekday	337	337	674
AM Peak Hour for ad	127	100	227
PM Peak (generator)	60	76	136
PM peak hour for adj	24	29	53

Based on an existing elementary school with 43,661 square feet gross floor area

Analysis Period	Weekday		
Average Rate	**Rate**		**Trips**
	15.43		674
Entering / Exiting			
% entering	50%		337
% exiting	50%		337
		In	Out
New Trips		337	337

Analysis Period	PM peak hour of generator		
Average Rate	**Rate**		**Trips**
	3.11		136
Entering / Exiting			
% entering	44%		60
% exiting	56%		76
		In	Out
New Trips		60	76

	AM Peak Hour for adjacent street		
Average Rate	**Rate**		**Trips**
	5.20		227
Entering / Exiting			
% entering	56%		127
% exiting	44%		100
		In	Out
New Trips		127	100

Analysis Period	PM peak hour for adjacent street		
Average Rate	**Rate**		**Trips**
	1.21		53
Entering / Exiting			
% entering	45%		24
% exiting	55%		29
		In	Out
New Trips		24	29

ITE Trip Generation

Trip Generation Based on Weighted Average Rates

PBS Engineering and Environmental

General			
Land Use Code	Middle School/Junior High School, Floor		
Independent Variable	1,000 Sq Ft		
Size (X)		55.33	
ITE Land Use Code		522	

Date:	Analyst:	Project:
9/11/2018	DAH	La Center MS
		(Proj No. 0071282.000)

	In	Out	Total
Average Weekday	381	381	762
AM Peak Hour for ac	133	108	241
PM Peak (generator)	63	76	139
PM peak hour for adj	34	32	66

Based on an existing middle school with 55,328 square feet gross floor area

Analysis Period	Weekday		
Average Rate	**Rate**		**Trips**
	13.78		762
Entering / Exiting			
% entering	50%		381
% exiting	50%		381
		In	Out
New Trips		381	381

Analysis Period	PM peak hour of generator		
Average Rate	**Rate**		**Trips**
	2.52		139
Entering / Exiting			
% entering	45%		63
% exiting	55%		76
		In	Out
New Trips		63	76

	AM Peak Hour for adjacent street		
Average Rate	**Rate**		**Trips**
	4.35		241
Entering / Exiting			
% entering	55%		133
% exiting	45%		108
		In	Out
New Trips		133	108

Analysis Period	PM peak hour for adjacent street		
Average Rate	**Rate**		**Trips**
	1.19		66
Entering / Exiting			
% entering	52%		34
% exiting	48%		32
		In	Out
New Trips		34	32

ITE Trip Generation

Trip Generation Based on Weighted Average Rates

PBS Engineering and Environmental

General			
Land Use Code	Middle School/Junior High School, Floor		
Independent Variable		1,000 Sq Ft	
Size (X)		81.648	
ITE Land Use Code		522	

Date:	Analyst:	Project:
10/18/2018	DAH	La Center MS (Proj No. 0071282.000)

	In	Out	Total
Average Weekday	562	563	1,125
AM Peak Hour for ac	195	160	355
PM Peak (generator)	93	113	206
PM peak hour for adj	50	47	97

Based on a proposed middle school with up to 81,648 square feet gross floor area (a preliminary value)

Analysis Period	Weekday		
Average Rate	**Rate**		**Trips**
	13.78		1,125
Entering / Exiting			
% entering	50%		562
% exiting	50%		563
		In	Out
New Trips		562	563

Analysis Period	PM peak hour of generator		
Average Rate	**Rate**		**Trips**
	2.52		206
Entering / Exiting			
% entering	45%		93
% exiting	55%		113
		In	Out
New Trips		93	113

Analysis Period	AM Peak Hour for adjacent street		
Average Rate	**Rate**		**Trips**
	4.35		355
Entering / Exiting			
% entering	55%		195
% exiting	45%		160
		In	Out
New Trips		195	160

Analysis Period	PM peak hour for adjacent street		
Average Rate	**Rate**		**Trips**
	1.19		97
Entering / Exiting			
% entering	52%		50
% exiting	48%		47
		In	Out
New Trips		50	47

Appendix D

Level of Service Calculations

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	225	267	67	45	12
Future Vol, veh/h	24	225	267	67	45	12
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	8	4	7	8	8	0
Mvmt Flow	30	281	334	84	56	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	422	0	-	0	721	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	4.18	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1106	-	-	-	385	671
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1106	-	-	-	372	668
Mov Cap-2 Maneuver	-	-	-	-	372	-
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1106	-	-	-	372	668
HCM Lane V/C Ratio	0.027	-	-	-	0.151	0.022
HCM Control Delay (s)	8.3	-	-	-	16.4	10.5
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	316	382	27	37	8
Future Vol, veh/h	3	316	382	27	37	8
Conflicting Peds, #/hr	4	0	0	4	39	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	4	6	7	5	0
Mvmt Flow	3	363	439	31	43	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	474	0	-	0	868	459
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	409	-
Critical Hdwy	4.43	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.497	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	944	-	-	-	319	606
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	664	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	944	-	-	-	315	604
Mov Cap-2 Maneuver	-	-	-	-	315	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	659	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	17.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	944	-	-	-	344
HCM Lane V/C Ratio	0.004	-	-	-	0.15
HCM Control Delay (s)	8.8	0	-	-	17.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	251	104	6	325	88	59
Future Vol, veh/h	251	104	6	325	88	59
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	1	0	7	0	2
Mvmt Flow	310	128	7	401	109	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	444	0	796	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	416	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1127	-	359	667
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1127	-	354	663
Mov Cap-2 Maneuver	-	-	-	-	354	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	354	663	-	-	1127	-
HCM Lane V/C Ratio	0.307	0.11	-	-	0.007	-
HCM Control Delay (s)	19.6	11.1	-	-	8.2	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	44	111	331	0	1
Future Vol, veh/h	261	44	111	331	0	1
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	6	2	18	7	0	0
Mvmt Flow	343	58	146	436	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	408	0	1107	379
Stage 1	-	-	-	-	379	-
Stage 2	-	-	-	-	728	-
Critical Hdwy	-	-	4.28	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.362	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1070	-	235	672
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1070	-	202	668
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	416	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	668	-	-	1070	-
HCM Lane V/C Ratio	0.002	-	-	0.136	-
HCM Control Delay (s)	10.4	-	-	8.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	132	118	14	9	220	35	28	1	17	9	3	192
Future Vol, veh/h	132	118	14	9	220	35	28	1	17	9	3	192
Conflicting Peds, #/hr	1	0	8	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	8	0	0	4	9	61	0	6	11	0	8
Mvmt Flow	183	164	19	13	306	49	39	1	24	13	4	267

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	355	0	0	191	0	0	1039	928	182	909	914	332
Stage 1	-	-	-	-	-	-	548	548	-	356	356	-
Stage 2	-	-	-	-	-	-	491	380	-	553	558	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.71	6.5	6.26	7.21	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	4.049	4	3.354	3.599	4	3.372
Pot Cap-1 Maneuver	1182	-	-	1395	-	-	163	270	850	247	275	696
Stage 1	-	-	-	-	-	-	429	520	-	643	633	-
Stage 2	-	-	-	-	-	-	463	617	-	502	515	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1181	-	-	1395	-	-	86	224	844	209	228	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	224	-	209	228	-
Stage 1	-	-	-	-	-	-	360	436	-	543	627	-
Stage 2	-	-	-	-	-	-	281	611	-	411	432	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.3	0.3	51.2	14.3
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	86	732	1181	-	-	1395	-	-	209	674
HCM Lane V/C Ratio	0.452	0.034	0.155	-	-	0.009	-	-	0.06	0.402
HCM Control Delay (s)	77.6	10.1	8.6	-	-	7.6	-	-	23.3	13.9
HCM Lane LOS	F	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	1.9	0.1	0.5	-	-	0	-	-	0.2	1.9

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	0	0	4	2	0
Future Vol, veh/h	23	0	0	4	2	0
Conflicting Peds, #/hr	9	134	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	78	0	0	0	0	0
Mvmt Flow	51	0	0	9	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	22	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	7.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	-	-	-	-	-
Critical Hdwy Stg 2	6.18	-	-	-	-	-
Follow-up Hdwy	4.202	-	-	-	-	-
Pot Cap-1 Maneuver	831	0	0	-	-	0
Stage 1	853	0	0	-	-	0
Stage 2	839	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	831	-	-	-	-	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	831	-
HCM Lane V/C Ratio	-	0.062	-
HCM Control Delay (s)	-	9.6	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	48	9	144	77	3
Future Vol, veh/h	50	48	9	144	77	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	2	22	4	8	0
Mvmt Flow	62	59	11	178	95	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	121	0	291	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	200	-
Critical Hdwy	-	-	4.32	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.398	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1351	-	687	972
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	820	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1351	-	681	972
Mov Cap-2 Maneuver	-	-	-	-	681	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	813	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	689	-	-	1351	-
HCM Lane V/C Ratio	0.143	-	-	0.008	-
HCM Control Delay (s)	11.1	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	307	211	49	40	16
Future Vol, veh/h	79	307	211	49	40	16
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	2	5	4	4	0
Mvmt Flow	90	349	240	56	45	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	299	0	-	0	800	272
Stage 1	-	-	-	-	272	-
Stage 2	-	-	-	-	528	-
Critical Hdwy	4.14	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1251	-	-	-	351	772
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	588	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1251	-	-	-	323	769
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	544	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1251	-	-	-	323	769
HCM Lane V/C Ratio	0.072	-	-	-	0.141	0.024
HCM Control Delay (s)	8.1	-	-	-	18	9.8
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	335	307	35	15	5
Future Vol, veh/h	9	335	307	35	15	5
Conflicting Peds, #/hr	0	0	0	0	52	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	8	6	6	7	0
Mvmt Flow	10	385	353	40	17	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	393	0	-	0	831	373
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	458	-
Critical Hdwy	4.1	-	-	-	6.47	6.2
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.2	-	-	-	3.563	3.3
Pot Cap-1 Maneuver	1177	-	-	-	333	678
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1177	-	-	-	329	678
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1177	-	-	-	378
HCM Lane V/C Ratio	0.009	-	-	-	0.061
HCM Control Delay (s)	8.1	0	-	-	15.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	333	16	1	293	51	41
Future Vol, veh/h	333	16	1	293	51	41
Conflicting Peds, #/hr	0	33	33	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	8	13	0	7	4	0
Mvmt Flow	396	19	1	349	61	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	448	0	790	439
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	351	-
Critical Hdwy	-	-	4.1	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.2	-	3.536	3.3
Pot Cap-1 Maneuver	-	-	1123	-	356	622
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	708	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1123	-	344	602
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	707	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	344	602	-	-	1123	-
HCM Lane V/C Ratio	0.176	0.081	-	-	0.001	-
HCM Control Delay (s)	17.7	11.5	-	-	8.2	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	345	28	31	290	1	0
Future Vol, veh/h	345	28	31	290	1	0
Conflicting Peds, #/hr	0	30	30	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	50	10	6	0	0
Mvmt Flow	406	33	36	341	1	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	469	0	866	452
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	414	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1052	-	326	612
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	671	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	306	595
Mov Cap-2 Maneuver	-	-	-	-	306	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	648	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	1052	-
HCM Lane V/C Ratio	0.004	-	-	0.035	-
HCM Control Delay (s)	16.8	-	-	8.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	120	195	27	7	168	15	28	5	26	19	5	127
Future Vol, veh/h	120	195	27	7	168	15	28	5	26	19	5	127
Conflicting Peds, #/hr	4	0	28	28	0	4	24	0	2	2	0	24
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	3	4	0	5	7	25	40	27	0	0	4
Mvmt Flow	146	238	33	9	205	18	34	6	32	23	6	155

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	227	0	0	299	0	0	911	819	284	803	826	242
Stage 1	-	-	-	-	-	-	575	575	-	235	235	-
Stage 2	-	-	-	-	-	-	336	244	-	568	591	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.35	6.9	6.47	7.1	6.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.725	4.36	3.543	3.5	4	3.336
Pot Cap-1 Maneuver	1330	-	-	1274	-	-	232	271	699	304	310	792
Stage 1	-	-	-	-	-	-	465	447	-	773	714	-
Stage 2	-	-	-	-	-	-	633	639	-	511	498	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1300	-	-	1272	-	-	158	232	679	257	265	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	232	-	257	265	-
Stage 1	-	-	-	-	-	-	402	386	-	684	706	-
Stage 2	-	-	-	-	-	-	487	632	-	425	430	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.3	22.7	12.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	158	518	1300	-	-	1272	-	-	257	719
HCM Lane V/C Ratio	0.216	0.073	0.113	-	-	0.007	-	-	0.09	0.224
HCM Control Delay (s)	34	12.5	8.1	-	-	7.8	-	-	20.4	11.4
HCM Lane LOS	D	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.8	0.2	0.4	-	-	0	-	-	0.3	0.9

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰			↑	↑	
Traffic Vol, veh/h	18	0	0	1	4	0
Future Vol, veh/h	18	0	0	1	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	0	0	1	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	5	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	1017	0	0	-	-	0
Stage 1	1019	0	0	-	-	0
Stage 2	1022	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1017	-	-	-	-	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1017	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.6	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	111	80	3	62	59	6
Future Vol, veh/h	111	80	3	62	59	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	5	0	3	7	33
Mvmt Flow	135	98	4	76	72	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	233	0	267	184
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	-	-	4.1	-	6.47	6.53
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.597
Pot Cap-1 Maneuver	-	-	1346	-	712	785
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1346	-	710	785
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	925	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	716	-	-	1346	-
HCM Lane V/C Ratio	0.111	-	-	0.003	-
HCM Control Delay (s)	10.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	137	434	164	34	37	23
Future Vol, veh/h	137	434	164	34	37	23
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	2	3	3	0	0
Mvmt Flow	156	493	186	39	42	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	229	0	-	0	1015	210
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	805	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1345	-	-	-	266	835
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1345	-	-	-	233	832
Mov Cap-2 Maneuver	-	-	-	-	233	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	390	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1345	-	-	-	233	832
HCM Lane V/C Ratio	0.116	-	-	-	0.18	0.031
HCM Control Delay (s)	8	-	-	-	23.8	9.5
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	458	223	19	25	5
Future Vol, veh/h	11	458	223	19	25	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	2	0	0	20
Mvmt Flow	13	533	259	22	29	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	281	0	-	0	828	270
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	558	-
Critical Hdwy	4.1	-	-	-	6.4	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.48
Pot Cap-1 Maneuver	1293	-	-	-	344	727
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1293	-	-	-	339	727
Mov Cap-2 Maneuver	-	-	-	-	339	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	569	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1293	-	-	-	372
HCM Lane V/C Ratio	0.01	-	-	-	0.094
HCM Control Delay (s)	7.8	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	469	14	5	218	27	13
Future Vol, veh/h	469	14	5	218	27	13
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	545	16	6	253	31	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	569	0	825	560
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	265	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1013	-	345	532
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1013	-	340	528
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	779	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	340	528	-	-	1013	-
HCM Lane V/C Ratio	0.092	0.029	-	-	0.006	-
HCM Control Delay (s)	16.7	12	-	-	8.6	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.5					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	442	39	39	219	1	1
Future Vol, veh/h	442	39	39	219	1	1
Conflicting Peds, #/hr	0	7	7	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	508	45	45	252	1	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	560	0	878	538
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1021	-	321	547
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	725	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	305	543
Mov Cap-2 Maneuver	-	-	-	-	305	-
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	391	-	-	1020	-
HCM Lane V/C Ratio	0.006	-	-	0.044	-
HCM Control Delay (s)	14.3	-	-	8.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	170	264	4	1	149	18	16	5	7	9	2	94
Future Vol, veh/h	170	264	4	1	149	18	16	5	7	9	2	94
Conflicting Peds, #/hr	0	0	13	13	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	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	189	293	4	1	166	20	18	6	8	10	2	104

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	186	0	0	311	0	0	917	874	309	858	867	176
Stage 1	-	-	-	-	-	-	686	686	-	178	178	-
Stage 2	-	-	-	-	-	-	231	188	-	680	689	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1401	-	-	1261	-	-	255	290	736	279	293	867
Stage 1	-	-	-	-	-	-	441	451	-	828	756	-
Stage 2	-	-	-	-	-	-	776	748	-	444	450	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1401	-	-	1261	-	-	197	248	727	243	250	867
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	248	-	243	250	-
Stage 1	-	-	-	-	-	-	377	385	-	716	755	-
Stage 2	-	-	-	-	-	-	680	747	-	375	384	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	20.4	10.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	197	403	1401	-	-	1261	-	-	243	825
HCM Lane V/C Ratio	0.09	0.033	0.135	-	-	0.001	-	-	0.041	0.129
HCM Control Delay (s)	25.1	14.2	8	-	-	7.9	-	-	20.5	10
HCM Lane LOS	D	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	0.1	0.5	-	-	0	-	-	0.1	0.4

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	0	0	0	0	0
Future Vol, veh/h	25	0	0	0	0	0
Conflicting Peds, #/hr	3	1	1	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	27	27	27	27	27	27
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	7	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	-	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	-	-	-	-	-
Pot Cap-1 Maneuver	1019	0	0	-	-	0
Stage 1	1024	0	0	-	-	0
Stage 2	1025	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1019	-	-	-	-	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1019	-
HCM Lane V/C Ratio	-	0.091	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	121	74	7	64	58	10
Future Vol, veh/h	121	74	7	64	58	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	0	2	5	0
Mvmt Flow	130	80	8	69	62	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	210	0	254	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	-	-	4.1	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.3
Pot Cap-1 Maneuver	-	-	1373	-	728	879
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1373	-	724	879
Mov Cap-2 Maneuver	-	-	-	-	724	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	926	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	743	-	-	1373	-
HCM Lane V/C Ratio	0.098	-	-	0.005	-
HCM Control Delay (s)	10.4	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑	↱		↰	↱
Traffic Vol, veh/h	30	285	342	73	57	25
Future Vol, veh/h	30	285	342	73	57	25
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	8	4	7	8	8	0
Mvmt Flow	38	356	428	91	71	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	523	0	-	0	908	477
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	4.18	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	1014	-	-	-	298	592
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1014	-	-	-	285	590
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	617	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	18.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1014	-	-	-	285	590
HCM Lane V/C Ratio	0.037	-	-	-	0.25	0.053
HCM Control Delay (s)	8.7	-	-	-	21.8	11.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1	0.2

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	388	464	28	38	8
Future Vol, veh/h	3	388	464	28	38	8
Conflicting Peds, #/hr	4	0	0	4	39	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	4	6	7	5	0
Mvmt Flow	3	446	533	32	44	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	570	0	-	0	1045	553
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	492	-
Critical Hdwy	4.43	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.497	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	866	-	-	-	250	537
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	608	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	866	-	-	-	247	535
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	603	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	21.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	866	-	-	-	273
HCM Lane V/C Ratio	0.004	-	-	-	0.194
HCM Control Delay (s)	9.2	0	-	-	21.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection						
Int Delay, s/veh	3.1					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	104	6	405	88	59
Future Vol, veh/h	320	104	6	405	88	59
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	1	0	7	0	2
Mvmt Flow	395	128	7	500	109	73

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	529	0	980	465
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1048	-	279	597
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	604	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1048	-	275	594
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	599	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	275	594	-	-	1048	-
HCM Lane V/C Ratio	0.395	0.123	-	-	0.007	-
HCM Control Delay (s)	26.4	11.9	-	-	8.5	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1.8	0.4	-	-	0	-

Intersection						
Int Delay, s/veh	1.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	331	44	111	411	0	1
Future Vol, veh/h	331	44	111	411	0	1
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	6	2	18	7	0	0
Mvmt Flow	436	58	146	541	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	500	0	1304	471
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	833	-
Critical Hdwy	-	-	4.28	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.362	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	987	-	179	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	430	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	987	-	152	593
Mov Cap-2 Maneuver	-	-	-	-	152	-
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	366	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	593	-	-	987	-
HCM Lane V/C Ratio	0.002	-	-	0.148	-
HCM Control Delay (s)	11.1	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-

Intersection	
Int Delay, s/veh	14.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	160	158	15	11	266	36	29	2	19	9	5	230
Future Vol, veh/h	160	158	15	11	266	36	29	2	19	9	5	230
Conflicting Peds, #/hr	1	0	8	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	8	0	0	4	9	61	0	6	11	0	8
Mvmt Flow	222	219	21	15	369	50	40	3	26	13	7	319

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	248	0	0	1271	1133	238	1115	1119	396
Stage 1	-	-	-	-	-	-	682	682	-	426	426	-
Stage 2	-	-	-	-	-	-	589	451	-	689	693	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.71	6.5	6.26	7.21	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	4.049	4	3.354	3.599	4	3.372
Pot Cap-1 Maneuver	1118	-	-	1330	-	-	110	205	791	178	209	640
Stage 1	-	-	-	-	-	-	357	453	-	589	589	-
Stage 2	-	-	-	-	-	-	406	574	-	422	448	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1117	-	-	1330	-	-	44	161	785	143	164	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	44	161	-	143	164	-
Stage 1	-	-	-	-	-	-	284	360	-	471	582	-
Stage 2	-	-	-	-	-	-	198	567	-	324	356	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.3	0.3	151.3	18.3
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	44	573	1117	-	-	1330	-	-	143	602
HCM Lane V/C Ratio	0.915	0.051	0.199	-	-	0.011	-	-	0.087	0.542
HCM Control Delay (s)	252.4	11.6	9	-	-	7.7	-	-	32.6	17.8
HCM Lane LOS	F	B	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	3.7	0.2	0.7	-	-	0	-	-	0.3	3.2

Intersection						
Int Delay, s/veh	7.6					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	0	0	4	2	0
Future Vol, veh/h	23	0	0	4	2	0
Conflicting Peds, #/hr	9	134	134	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	78	0	0	0	0	0
Mvmt Flow	51	0	0	9	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	22	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	7.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	-	-	-	-	-
Critical Hdwy Stg 2	6.18	-	-	-	-	-
Follow-up Hdwy	4.202	-	-	-	-	-
Pot Cap-1 Maneuver	831	0	0	-	-	0
Stage 1	853	0	0	-	-	0
Stage 2	839	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	831	-	-	-	-	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	831	-
HCM Lane V/C Ratio	-	0.062	-
HCM Control Delay (s)	-	9.6	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	71	63	9	156	84	3
Future Vol, veh/h	71	63	9	156	84	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	2	22	4	8	0
Mvmt Flow	88	78	11	193	104	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	165	0	342	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	215	-
Critical Hdwy	-	-	4.32	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.398	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1301	-	642	929
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1301	-	636	929
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	643	-	-	1301	-
HCM Lane V/C Ratio	0.167	-	-	0.009	-
HCM Control Delay (s)	11.7	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	384	287	58	50	28
Future Vol, veh/h	92	384	287	58	50	28
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	2	5	4	4	0
Mvmt Flow	105	436	326	66	57	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	396	0	-	0	1008	363
Stage 1	-	-	-	-	363	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	4.14	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1152	-	-	-	264	686
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1152	-	-	-	238	683
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	470	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1152	-	-	-	238	683
HCM Lane V/C Ratio	0.091	-	-	-	0.239	0.047
HCM Control Delay (s)	8.4	-	-	-	24.8	10.5
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.9	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	421	391	36	16	5
Future Vol, veh/h	9	421	391	36	16	5
Conflicting Peds, #/hr	0	0	0	0	52	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	8	6	6	7	0
Mvmt Flow	10	484	449	41	18	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	491	0	-	0	1027	470
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	557	-
Critical Hdwy	4.1	-	-	-	6.47	6.2
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.2	-	-	-	3.563	3.3
Pot Cap-1 Maneuver	1083	-	-	-	254	598
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	564	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1083	-	-	-	251	598
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	557	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1083	-	-	-	291
HCM Lane V/C Ratio	0.01	-	-	-	0.083
HCM Control Delay (s)	8.4	0	-	-	18.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	418	16	1	377	51	41
Future Vol, veh/h	418	16	1	377	51	41
Conflicting Peds, #/hr	0	33	33	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	8	13	0	7	4	0
Mvmt Flow	498	19	1	449	61	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	550	0	991	540
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	-	-	4.1	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.2	-	3.536	3.3
Pot Cap-1 Maneuver	-	-	1030	-	271	546
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1030	-	262	529
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	636	-

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

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	262	529	-	-	1030	-
HCM Lane V/C Ratio	0.232	0.092	-	-	0.001	-
HCM Control Delay (s)	22.8	12.5	-	-	8.5	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	431	28	31	374	1	0
Future Vol, veh/h	431	28	31	374	1	0
Conflicting Peds, #/hr	0	30	30	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	50	10	6	0	0
Mvmt Flow	507	33	36	440	1	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	570	0	1067	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	964	-	248	536
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	605	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	964	-	232	521
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	582	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	232	-	-	964	-
HCM Lane V/C Ratio	0.005	-	-	0.038	-
HCM Control Delay (s)	20.6	-	-	8.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	156	243	28	8	217	16	29	6	28	20	6	162
Future Vol, veh/h	156	243	28	8	217	16	29	6	28	20	6	162
Conflicting Peds, #/hr	4	0	28	28	0	4	24	0	2	2	0	24
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	3	4	0	5	7	25	40	27	0	0	4
Mvmt Flow	190	296	34	10	265	20	35	7	34	24	7	198

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	288	0	0	358	0	0	1142	1030	343	1015	1037	302
Stage 1	-	-	-	-	-	-	722	722	-	298	298	-
Stage 2	-	-	-	-	-	-	420	308	-	717	739	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.35	6.9	6.47	7.1	6.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.725	4.36	3.543	3.5	4	3.336
Pot Cap-1 Maneuver	1263	-	-	1212	-	-	160	201	646	219	233	733
Stage 1	-	-	-	-	-	-	384	379	-	715	671	-
Stage 2	-	-	-	-	-	-	568	597	-	424	427	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1234	-	-	1210	-	-	94	164	628	174	190	714
Mov Cap-2 Maneuver	-	-	-	-	-	-	94	164	-	174	190	-
Stage 1	-	-	-	-	-	-	316	312	-	603	663	-
Stage 2	-	-	-	-	-	-	394	590	-	331	352	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0.3	37.7	14.8
HCM LOS			E	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	94	419	1234	-	-	1210	-	-	174	650
HCM Lane V/C Ratio	0.376	0.099	0.154	-	-	0.008	-	-	0.14	0.315
HCM Control Delay (s)	64.8	14.5	8.4	-	-	8	-	-	29	13.1
HCM Lane LOS	F	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	1.5	0.3	0.5	-	-	0	-	-	0.5	1.3

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	0	0	1	4	0
Future Vol, veh/h	18	0	0	1	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	0	0	1	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	5	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	1017	0	0	-	-	0
Stage 1	1019	0	0	-	-	0
Stage 2	1022	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1017	-	-	-	-	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1017	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.6	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	94	3	77	71	6
Future Vol, veh/h	130	94	3	77	71	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	5	0	3	7	33
Mvmt Flow	159	115	4	94	87	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	273	0	317	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	101	-
Critical Hdwy	-	-	4.1	-	6.47	6.53
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.597
Pot Cap-1 Maneuver	-	-	1302	-	666	752
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1302	-	664	752
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	908	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	670	-	-	1302	-
HCM Lane V/C Ratio	0.14	-	-	0.003	-
HCM Control Delay (s)	11.2	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	158	532	241	46	44	33
Future Vol, veh/h	158	532	241	46	44	33
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	2	3	3	0	0
Mvmt Flow	180	605	274	52	50	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	330	0	-	0	1268	304
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	964	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1235	-	-	-	188	740
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	373	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1235	-	-	-	159	737
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	317	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	25.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1235	-	-	-	159	737
HCM Lane V/C Ratio	0.145	-	-	-	0.314	0.051
HCM Control Delay (s)	8.4	-	-	-	37.7	10.1
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.3	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	561	310	20	26	5
Future Vol, veh/h	11	561	310	20	26	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	2	0	0	20
Mvmt Flow	13	652	360	23	30	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	384	0	-	0	1050	372
Stage 1	-	-	-	-	372	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.1	-	-	-	6.4	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.48
Pot Cap-1 Maneuver	1186	-	-	-	254	636
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	508	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1186	-	-	-	250	636
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	702	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1186	-	-	-	277
HCM Lane V/C Ratio	0.011	-	-	-	0.13
HCM Control Delay (s)	8.1	0	-	-	19.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	572	14	5	305	27	13
Future Vol, veh/h	572	14	5	305	27	13
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	665	16	6	355	31	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	688	0	1046	680
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	366	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	916	-	255	454
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	706	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	916	-	251	451
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	700	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	451	-	-	916	-
HCM Lane V/C Ratio	0.125	0.034	-	-	0.006	-
HCM Control Delay (s)	21.4	13.3	-	-	9	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	544	39	39	306	1	1
Future Vol, veh/h	544	39	39	306	1	1
Conflicting Peds, #/hr	0	7	7	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	625	45	45	352	1	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	677	0	1096	656
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	441	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	924	-	238	469
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	653	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	923	-	225	465
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	621	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	303	-	-	923	-
HCM Lane V/C Ratio	0.008	-	-	0.049	-
HCM Control Delay (s)	17	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	217	320	4	2	202	19	17	7	9	9	3	128
Future Vol, veh/h	217	320	4	2	202	19	17	7	9	9	3	128
Conflicting Peds, #/hr	0	0	13	13	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	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	241	356	4	2	224	21	19	8	10	10	3	142

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	246	0	0	373	0	0	1165	1103	371	1088	1094	235
Stage 1	-	-	-	-	-	-	853	853	-	239	239	-
Stage 2	-	-	-	-	-	-	312	250	-	849	855	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1332	-	-	1197	-	-	173	213	679	195	216	804
Stage 1	-	-	-	-	-	-	357	378	-	769	711	-
Stage 2	-	-	-	-	-	-	703	704	-	358	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1332	-	-	1197	-	-	119	172	671	160	174	804
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	172	-	160	174	-
Stage 1	-	-	-	-	-	-	289	306	-	630	710	-
Stage 2	-	-	-	-	-	-	575	703	-	282	306	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0.1	29.7	12.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	119	296	1332	-	-	1197	-	-	160	742
HCM Lane V/C Ratio	0.159	0.06	0.181	-	-	0.002	-	-	0.063	0.196
HCM Control Delay (s)	40.9	17.9	8.3	-	-	8	-	-	29	11
HCM Lane LOS	E	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.5	0.2	0.7	-	-	0	-	-	0.2	0.7

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	0	0	0	0	0
Future Vol, veh/h	25	0	0	0	0	0
Conflicting Peds, #/hr	3	1	1	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	27	27	27	27	27	27
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	7	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	-	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	-	-	-	-	-
Pot Cap-1 Maneuver	1019	0	0	-	-	0
Stage 1	1024	0	0	-	-	0
Stage 2	1025	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1019	-	-	-	-	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1019	-
HCM Lane V/C Ratio	-	0.091	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	137	85	7	88	74	10
Future Vol, veh/h	137	85	7	88	74	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	0	2	5	0
Mvmt Flow	147	91	8	95	80	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	239	0	303	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.1	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.3
Pot Cap-1 Maneuver	-	-	1340	-	682	854
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1340	-	678	854
Mov Cap-2 Maneuver	-	-	-	-	678	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	902	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	695	-	-	1340	-
HCM Lane V/C Ratio	0.13	-	-	0.006	-
HCM Control Delay (s)	11	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	313	365	78	64	25
Future Vol, veh/h	30	313	365	78	64	25
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	8	4	7	8	8	0
Mvmt Flow	38	391	456	98	80	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	558	0	-	0	975	509
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	466	-
Critical Hdwy	4.18	-	-	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.272	-	-	-	3.572	3.3
Pot Cap-1 Maneuver	983	-	-	-	272	568
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	983	-	-	-	259	566
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	593	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	21.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	983	-	-	-	259	566
HCM Lane V/C Ratio	0.038	-	-	-	0.309	0.055
HCM Control Delay (s)	8.8	-	-	-	25	11.7
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3	0.2

Intersection						
Int Delay, s/veh	1.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	422	493	31	41	8
Future Vol, veh/h	3	422	493	31	41	8
Conflicting Peds, #/hr	4	0	0	4	39	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	33	4	6	7	5	0
Mvmt Flow	3	485	567	36	47	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	606	0	-	0	1119	588
Stage 1	-	-	-	-	588	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	4.43	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.497	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	838	-	-	-	226	513
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	584	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	838	-	-	-	223	511
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	579	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	838	-	-	-	246
HCM Lane V/C Ratio	0.004	-	-	-	0.229
HCM Control Delay (s)	9.3	0	-	-	23.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	394	67	0	482	43	33
Future Vol, veh/h	394	67	0	482	43	33
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	1	0	7	0	2
Mvmt Flow	486	83	0	595	53	41

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	575	0	1129	534
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	-	-	4.1	-	6.4	6.22
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.318
Pot Cap-1 Maneuver	-	-	1008	-	228	546
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	555	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1008	-	227	543
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	555	-

Approach	EB		WB		NB
HCM Control Delay, s	0		0		19.8
HCM LOS					C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	227	543	-	-	1008	-
HCM Lane V/C Ratio	0.234	0.075	-	-	-	-
HCM Control Delay (s)	25.6	12.2	-	-	0	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	408	15	71	482	0	0
Future Vol, veh/h	408	15	71	482	0	0
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	6	2	18	7	0	0
Mvmt Flow	537	20	93	634	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	564	0	1375	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	821	-
Critical Hdwy	-	-	4.28	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.362	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	933	-	162	536
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	436	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	933	-	145	532
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	393	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	933	-
HCM Lane V/C Ratio	-	-	-	0.1	-
HCM Control Delay (s)	0	-	-	9.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	146	262	2	7	333	60	10	0	5	38	2	213
Future Vol, veh/h	146	262	2	7	333	60	10	0	5	38	2	213
Conflicting Peds, #/hr	1	0	8	8	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	6	8	0	0	4	9	61	0	6	11	0	8
Mvmt Flow	203	364	3	10	463	83	14	0	7	53	3	296

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	547	0	0	375	0	0	1453	1345	373	1299	1305	506
Stage 1	-	-	-	-	-	-	779	779	-	525	525	-
Stage 2	-	-	-	-	-	-	674	566	-	774	780	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.71	6.5	6.26	7.21	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.71	5.5	-	6.21	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	4.049	4	3.354	3.599	4	3.372
Pot Cap-1 Maneuver	1003	-	-	1195	-	-	80	153	664	132	162	555
Stage 1	-	-	-	-	-	-	312	409	-	520	533	-
Stage 2	-	-	-	-	-	-	361	511	-	378	409	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	1195	-	-	31	120	659	109	127	554
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	120	-	109	127	-
Stage 1	-	-	-	-	-	-	247	324	-	414	528	-
Stage 2	-	-	-	-	-	-	166	506	-	298	324	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0.1	132.8	26.7
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	31	659	1002	-	-	1195	-	-	109	537
HCM Lane V/C Ratio	0.448	0.011	0.202	-	-	0.008	-	-	0.484	0.556
HCM Control Delay (s)	194	10.5	9.5	-	-	8	-	-	65.7	19.8
HCM Lane LOS	F	B	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.5	0	0.8	-	-	0	-	-	2.2	3.4

Intersection						
Int Delay, s/veh	4.7					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰			↑	↑	
Traffic Vol, veh/h	6	0	0	4	2	0
Future Vol, veh/h	6	0	0	4	2	0
Conflicting Peds, #/hr	9	134	134	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	78	0	0	0	0	0
Mvmt Flow	13	0	0	9	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	22	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	7.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	-	-	-	-	-
Critical Hdwy Stg 2	6.18	-	-	-	-	-
Follow-up Hdwy	4.202	-	-	-	-	-
Pot Cap-1 Maneuver	831	0	0	-	-	0
Stage 1	853	0	0	-	-	0
Stage 2	839	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	831	-	-	-	-	-
Mov Cap-2 Maneuver	831	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	831	-
HCM Lane V/C Ratio	-	0.016	-
HCM Control Delay (s)	-	9.4	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	135	133	33	230	109	27
Future Vol, veh/h	135	133	33	230	109	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	6	2	2	4	2	2
Mvmt Flow	180	177	44	307	145	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	357	0	664	269
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	395	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1202	-	426	770
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1202	-	407	770
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	776	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	449	-	-	1202	-
HCM Lane V/C Ratio	0.404	-	-	0.037	-
HCM Control Delay (s)	18.3	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.9	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	139	23	6	244	19	5
Future Vol, veh/h	139	23	6	244	19	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	6	50	50	4	50	50
Mvmt Flow	185	31	8	325	25	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	216	0	542	201
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	4.6	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.65	-	3.95	3.75
Pot Cap-1 Maneuver	-	-	1115	-	428	732
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	625	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1115	-	424	732
Mov Cap-2 Maneuver	-	-	-	-	424	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	619	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	1115	-
HCM Lane V/C Ratio	0.069	-	-	0.007	-
HCM Control Delay (s)	13.3	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	67	9	163	89	3
Future Vol, veh/h	77	67	9	163	89	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	6	2	22	4	8	0
Mvmt Flow	95	83	11	201	110	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	178	0	359	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	-	-	4.32	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.398	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1286	-	628	918
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1286	-	622	918
Mov Cap-2 Maneuver	-	-	-	-	622	-
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	629	-	-	1286	-
HCM Lane V/C Ratio	0.181	-	-	0.009	-
HCM Control Delay (s)	12	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection						
Int Delay, s/veh	2.7					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	398	304	61	53	28
Future Vol, veh/h	92	398	304	61	53	28
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	2	5	4	4	0
Mvmt Flow	105	452	345	69	60	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	419	0	-	0	1045	384
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	4.14	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.236	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1129	-	-	-	251	668
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1129	-	-	-	226	665
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	461	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	21.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1129	-	-	-	226	665
HCM Lane V/C Ratio	0.093	-	-	-	0.266	0.048
HCM Control Delay (s)	8.5	-	-	-	26.6	10.7
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	437	411	38	18	5
Future Vol, veh/h	9	437	411	38	18	5
Conflicting Peds, #/hr	0	0	0	0	52	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	8	6	6	7	0
Mvmt Flow	10	502	472	44	21	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	516	0	-	0	1069	494
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	4.1	-	-	-	6.47	6.2
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	2.2	-	-	-	3.563	3.3
Pot Cap-1 Maneuver	1060	-	-	-	240	579
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1060	-	-	-	237	579
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	546	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1060	-	-	-	272
HCM Lane V/C Ratio	0.01	-	-	-	0.097
HCM Control Delay (s)	8.4	0	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	442	10	0	431	20	22
Future Vol, veh/h	442	10	0	431	20	22
Conflicting Peds, #/hr	0	33	33	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	8	13	0	7	4	0
Mvmt Flow	526	12	0	513	24	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	571	0	1078	565
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	-	-	4.1	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.2	-	3.536	3.3
Pot Cap-1 Maneuver	-	-	1012	-	240	528
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1012	-	232	511
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	597	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	232	511	-	-	1012	-
HCM Lane V/C Ratio	0.103	0.051	-	-	-	-
HCM Control Delay (s)	22.3	12.4	-	-	0	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	461	3	10	426	0	0
Future Vol, veh/h	461	3	10	426	0	0
Conflicting Peds, #/hr	0	30	30	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	4	50	10	6	0	0
Mvmt Flow	542	4	12	501	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	576	0	1099	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	525	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	959	-	237	522
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	598	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	959	-	227	507
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	591	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	959	-
HCM Lane V/C Ratio	-	-	-	0.012	-
HCM Control Delay (s)	0	-	-	8.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	146	290	22	6	271	33	15	4	18	34	5	153
Future Vol, veh/h	146	290	22	6	271	33	15	4	18	34	5	153
Conflicting Peds, #/hr	4	0	28	28	0	4	24	0	2	2	0	24
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	3	4	0	5	7	25	40	27	0	0	4
Mvmt Flow	178	354	27	7	330	40	18	5	22	41	6	187

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	375	0	0	408	0	0	1237	1140	397	1108	1134	379
Stage 1	-	-	-	-	-	-	751	751	-	369	369	-
Stage 2	-	-	-	-	-	-	486	389	-	739	765	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.35	6.9	6.47	7.1	6.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.9	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.725	4.36	3.543	3.5	4	3.336
Pot Cap-1 Maneuver	1173	-	-	1162	-	-	137	171	601	189	204	663
Stage 1	-	-	-	-	-	-	370	367	-	655	624	-
Stage 2	-	-	-	-	-	-	522	547	-	412	415	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1146	-	-	1160	-	-	79	139	584	154	166	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	79	139	-	154	166	-
Stage 1	-	-	-	-	-	-	304	302	-	551	618	-
Stage 2	-	-	-	-	-	-	357	542	-	329	341	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.2	35.1	18
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	79	369	1146	-	-	1160	-	-	154	591
HCM Lane V/C Ratio	0.232	0.073	0.155	-	-	0.006	-	-	0.269	0.326
HCM Control Delay (s)	63.8	15.5	8.7	-	-	8.1	-	-	36.8	14
HCM Lane LOS	F	C	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.8	0.2	0.5	-	-	0	-	-	1	1.4

Intersection						
Int Delay, s/veh	4.7					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	0	0	1	4	0
Future Vol, veh/h	6	0	0	1	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	0	1	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	5	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	1017	0	0	-	-	0
Stage 1	1019	0	0	-	-	0
Stage 2	1022	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1017	-	-	-	-	-
Mov Cap-2 Maneuver	1017	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1017	-
HCM Lane V/C Ratio	-	0.006	-
HCM Control Delay (s)	-	8.6	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection						
Int Delay, s/veh	2.8					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	226	63	16	165	77	19
Future Vol, veh/h	226	63	16	165	77	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	301	84	21	220	103	25

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	385	0	606	343
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1173	-	460	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	781	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1173	-	451	700
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	485	-	-	1173	-
HCM Lane V/C Ratio	0.264	-	-	0.018	-
HCM Control Delay (s)	15.1	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.6					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	234	11	3	167	14	3
Future Vol, veh/h	234	11	3	167	14	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	50	50	2	50	50
Mvmt Flow	312	15	4	223	19	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	327	0	550	319
Stage 1	-	-	-	-	319	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	-	-	4.6	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.65	-	3.95	3.75
Pot Cap-1 Maneuver	-	-	1007	-	423	623
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1007	-	421	623
Mov Cap-2 Maneuver	-	-	-	-	421	-
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	13.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	447	-	-	1007	-
HCM Lane V/C Ratio	0.051	-	-	0.004	-
HCM Control Delay (s)	13.5	-	-	8.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	135	97	3	80	73	6
Future Vol, veh/h	135	97	3	80	73	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	7	5	0	3	7	33
Mvmt Flow	165	118	4	98	89	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	283	0	329	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	4.1	-	6.47	6.53
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.597
Pot Cap-1 Maneuver	-	-	1291	-	655	744
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1291	-	653	744
Mov Cap-2 Maneuver	-	-	-	-	653	-
Stage 1	-	-	-	-	802	-
Stage 2	-	-	-	-	904	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	659	-	-	1291	-
HCM Lane V/C Ratio	0.146	-	-	0.003	-
HCM Control Delay (s)	11.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection						
Int Delay, s/veh	3.2					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	158	540	248	48	46	33
Future Vol, veh/h	158	540	248	48	46	33
Conflicting Peds, #/hr	4	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	150	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	2	3	3	0	0
Mvmt Flow	180	614	282	55	52	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	340	0	-	0	1286	313
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	973	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1225	-	-	-	183	732
Stage 1	-	-	-	-	746	-
Stage 2	-	-	-	-	370	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1225	-	-	-	155	729
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	314	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	27.3
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1225	-	-	-	155	729
HCM Lane V/C Ratio	0.147	-	-	-	0.337	0.051
HCM Control Delay (s)	8.4	-	-	-	39.6	10.2
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.4	0.2

Intersection						
Int Delay, s/veh	0.8					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	570	318	20	27	5
Future Vol, veh/h	11	570	318	20	27	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	1	2	0	0	20
Mvmt Flow	13	663	370	23	31	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	393	0	-	0	1069	381
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	688	-
Critical Hdwy	4.1	-	-	-	6.4	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.48
Pot Cap-1 Maneuver	1177	-	-	-	247	628
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	503	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1177	-	-	-	243	628
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	494	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1177	-	-	-	269
HCM Lane V/C Ratio	0.011	-	-	-	0.138
HCM Control Delay (s)	8.1	0	-	-	20.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	591	4	0	327	15	6
Future Vol, veh/h	591	4	0	327	15	6
Conflicting Peds, #/hr	0	7	7	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	687	5	0	380	17	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	699	0	1077	697
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	380	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	907	-	245	444
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	907	-	243	441
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	243	441	-	-	907	-
HCM Lane V/C Ratio	0.072	0.016	-	-	-	-
HCM Control Delay (s)	21	13.3	-	-	0	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	566	29	32	324	0	0
Future Vol, veh/h	566	29	32	324	0	0
Conflicting Peds, #/hr	0	7	7	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	651	33	37	372	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	691	0	1120	675
Stage 1	-	-	-	-	674	-
Stage 2	-	-	-	-	446	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	913	-	231	457
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	649	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	912	-	220	454
Mov Cap-2 Maneuver	-	-	-	-	220	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	912	-
HCM Lane V/C Ratio	-	-	-	0.04	-
HCM Control Delay (s)	0	-	-	9.1	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	213	346	3	1	223	26	11	6	5	17	2	124
Future Vol, veh/h	213	346	3	1	223	26	11	6	5	17	2	124
Conflicting Peds, #/hr	0	0	13	13	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	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	3	0	0	0	0	0	0	2
Mvmt Flow	237	384	3	1	248	29	12	7	6	19	2	138

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	277	0	0	401	0	0	1206	1151	399	1130	1138	262
Stage 1	-	-	-	-	-	-	872	872	-	264	264	-
Stage 2	-	-	-	-	-	-	334	279	-	866	874	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.22
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	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.318
Pot Cap-1 Maneuver	1298	-	-	1169	-	-	162	200	655	183	203	777
Stage 1	-	-	-	-	-	-	348	371	-	746	694	-
Stage 2	-	-	-	-	-	-	684	683	-	351	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1298	-	-	1169	-	-	112	161	647	151	164	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	161	-	151	164	-
Stage 1	-	-	-	-	-	-	281	300	-	610	693	-
Stage 2	-	-	-	-	-	-	560	682	-	278	299	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	30.8	13.6
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	112	244	1298	-	-	1169	-	-	151	733
HCM Lane V/C Ratio	0.109	0.05	0.182	-	-	0.001	-	-	0.125	0.191
HCM Control Delay (s)	41	20.5	8.4	-	-	8.1	-	-	32.2	11.1
HCM Lane LOS	E	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.4	0.2	0.7	-	-	0	-	-	0.4	0.7

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	0	0	0	0	0
Future Vol, veh/h	20	0	0	0	0	0
Conflicting Peds, #/hr	3	1	1	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	27	27	27	27	27	27
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	7	-	-	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	3	-	-	-	-	-
Critical Hdwy	6.4	-	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	-	-	-	-	-
Pot Cap-1 Maneuver	1019	0	0	-	-	0
Stage 1	1024	0	0	-	-	0
Stage 2	1025	0	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	1019	-	-	-	-	-
Mov Cap-2 Maneuver	1019	-	-	-	-	-
Stage 1	1024	-	-	-	-	-
Stage 2	1025	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1019	-
HCM Lane V/C Ratio	-	0.073	-
HCM Control Delay (s)	-	8.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection						
Int Delay, s/veh	1.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	246	34	9	147	32	8
Future Vol, veh/h	246	34	9	147	32	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	2	2	3	2	2
Mvmt Flow	280	39	10	167	36	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	318	0	487	299
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1242	-	540	741
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1242	-	535	741
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	836	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1242	-
HCM Lane V/C Ratio	0.08	-	-	0.008	-
HCM Control Delay (s)	11.9	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	248	6	2	150	6	1
Future Vol, veh/h	248	6	2	150	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	4	2	2	3	2	2
Mvmt Flow	282	7	2	170	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	289	0	460	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	175	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1273	-	559	754
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1273	-	558	754
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	580	-	-	1273	-
HCM Lane V/C Ratio	0.014	-	-	0.002	-
HCM Control Delay (s)	11.3	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	139	86	7	90	75	10
Future Vol, veh/h	139	86	7	90	75	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	0	2	5	0
Mvmt Flow	149	92	8	97	81	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	242	0	308	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	112	-
Critical Hdwy	-	-	4.1	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.3
Pot Cap-1 Maneuver	-	-	1336	-	678	850
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	905	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1336	-	674	850
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	830	-
Stage 2	-	-	-	-	900	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	691	-	-	1336	-
HCM Lane V/C Ratio	0.132	-	-	0.006	-
HCM Control Delay (s)	11	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Appendix E

Turn Lane Evaluations

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

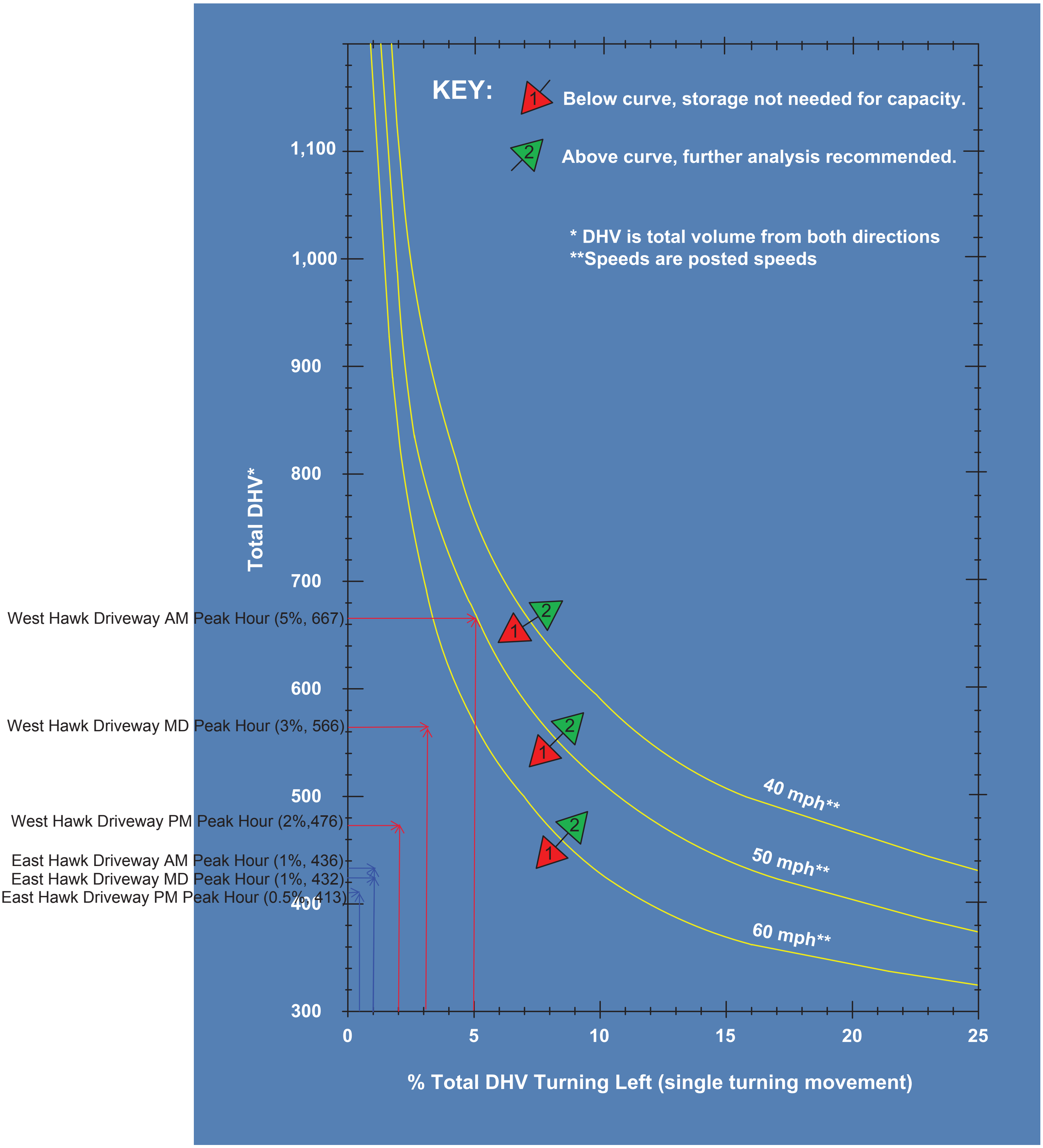
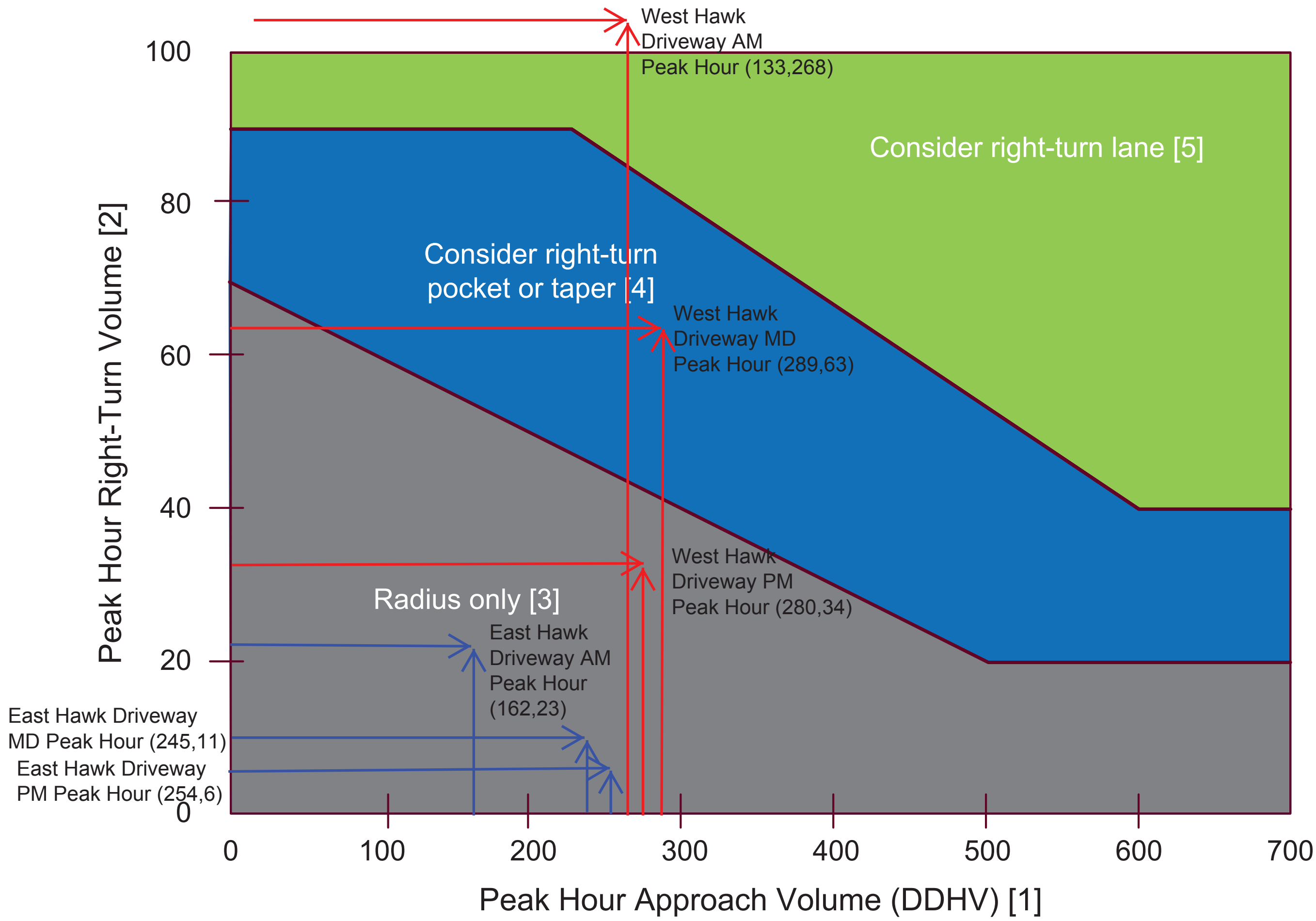


Exhibit 1310-11 Right-Turn Lane Guidelines



Notes:

[1] For two-lane highways, use the peak hour DDHV (through + right-turn).
For multilane, high-speed highways (posted speed 45 mph or above), use the right-lane peak hour approach volume (through + right-turn).

[2] When all three of the following conditions are met, reduce the right-turn DDHV by 20:

- The posted speed is 45 mph or below
- The right-turn volume is greater than 40 VPH
- The peak hour approach volume (DDHV) is less than 300 VPH

[3] For right-turn corner design, see Exhibit 1310-6.

[4] For right-turn pocket or taper design, see Exhibit 1310-12.

[5] For right-turn lane design, see Exhibit 1310-13.

Appendix F

Collision Rate Calculations and Data

OFFICER REPORTED CRASHES THAT OCCURRED ON ALL ROADS IN CLARK AND COWLITZ COUNTIES

01/01/2013 - 12/31/2017

Under 23 U.S. Code § 409 and 23 U.S. Code § 148, 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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	INTERSECTING TRAFFICWAY	DATE	TIME	MOST SEVERE INJURY TYPE	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)
City Street	Clark	La Center	E 4TH ST	NE HIGHLAND AVE	09/02/2014	08:05	No Apparent Injury	Entering at angle	Making Left Turn	Making Left Turn	West	Northeast	North	Southeast	Driver Not Distracted
City Street	Clark	La Center	E 4TH ST	NE HIGHLAND RD	09/18/2017	07:56	Possible Injury	Vehicle going straight hits pedestrian	Going Straight Ahead		West	East			Fail to Yield Row to Pedestrian
City Street	Clark	La Center	NE HIGHLAND AVE		04/23/2013	14:50	No Apparent Injury	Same direction -- both turning right -- both moving -- rear end	Making Right Turn	Making Right Turn	East	North	East	North	Follow Too Closely
City Street	Clark	La Center	NE HIGHLAND AVE	E 4TH ST	04/14/2013	11:30	No Apparent Injury	Street Light Pole or Base	Going Straight Ahead		North	South			Exceeding Stated Speed Limit

Collision Rate Calculations at Highland and Ivy + E 4th Street

Intersection:	Highland and Ivy + E 4th Street	5-Nov-18
Ra =	System Wide Average collision rate =	0.6
K =	Statistical Constant =	1.645
Average Daily cars passing Through intersection		
	ADT	7,900
M=	Millions of Vehicles in a 5-year period =	**14.4175**
Rc=	Critical Collision Rate =	**0.90**

Collision Rate

	Number of collisions =	4
	Number of years =	5
	Collision Rate =	**0.28**

Rc= Ra+(K*Ra/M)^.5)-1/(2*M)

System Wide Average collision rate and Statistical Constant are from Clark Co.

ADT estimated as 10x the 2018 weekday PM peak hour volume