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May 5, 2017 Project #: 21287

Vera Kolias
City of Milwaukie
6101 SE Johnson Creek Boulevard
Milwaukie, OR 97206

RE: Project Galaxy – Transportation Impact Analysis

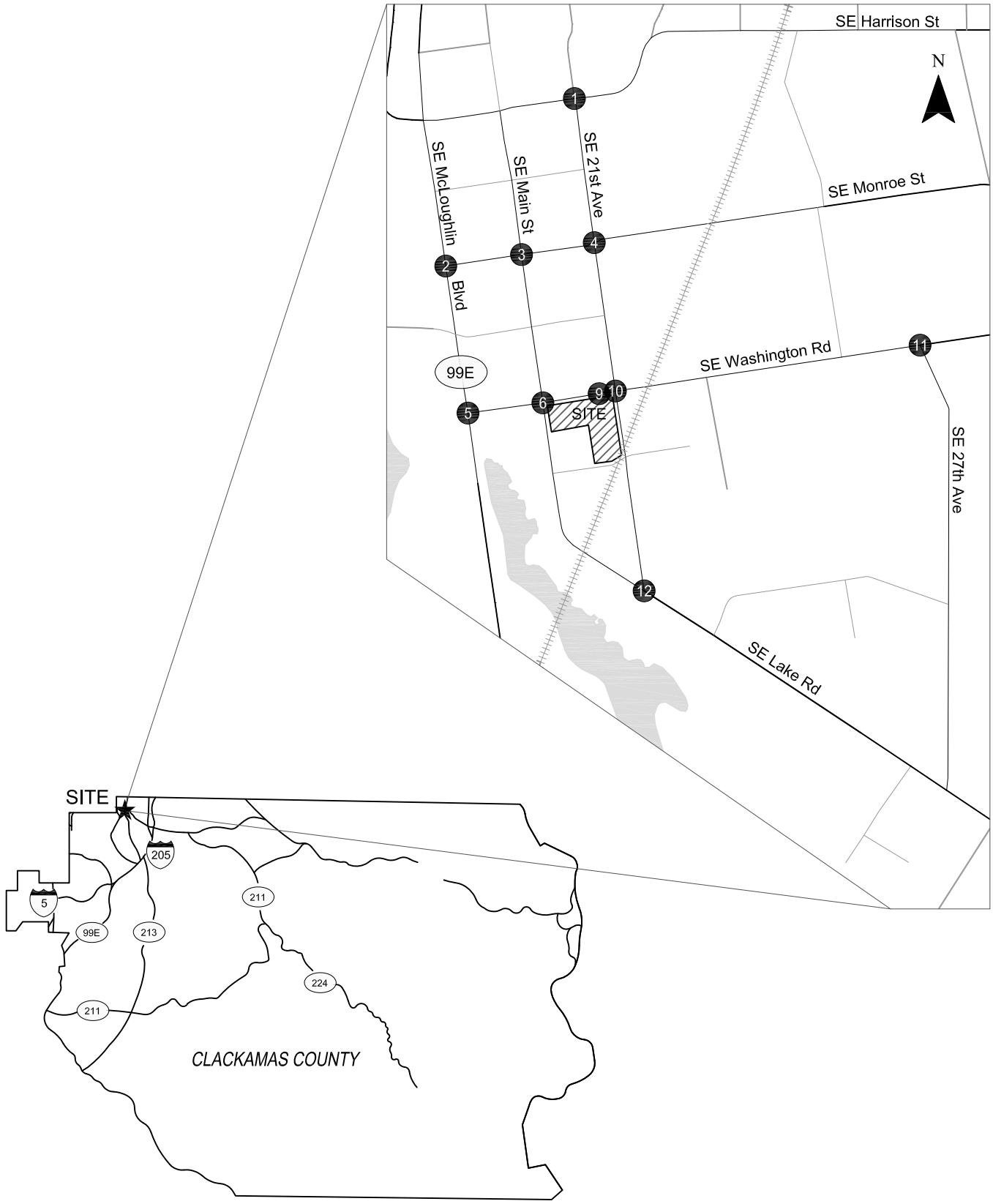
Dear Vera,

Guardian Real Estate Services, LLC is proposing to develop a mixed-use building in downtown Milwaukie. This report addresses the development's circulation impacts on the surrounding transportation system and complies with the City of Milwaukie's traffic impact study criteria. Additional details of the methodology, findings and recommendations are provided herein.

INTRODUCTION

The new mixed-use building will include apartments and ground floor retail space on the half-block bordered by SE Main Street to the west, SE Washington Street to the north, and SE 21st Avenue to the east. The five-story building will include 109 apartment units, a private 77-stall parking garage reserved exclusively for select apartment residents, and 8,830 square feet of ground floor retail. Access to the parking garage will occur via a single driveway located on SE Washington Street. 109 secure bicycle parking spaces will be provided within the parking garage for use by the apartment residents.

Figure 1 illustrates the site vicinity and Figure 2 illustrates the conceptual site layout. For the purposes of this study, full build-out and occupancy of the building is anticipated by the year 2019.



(##) - Study Intersections

Site Vicinity Map
Milwaukie, Oregon

Figure
1

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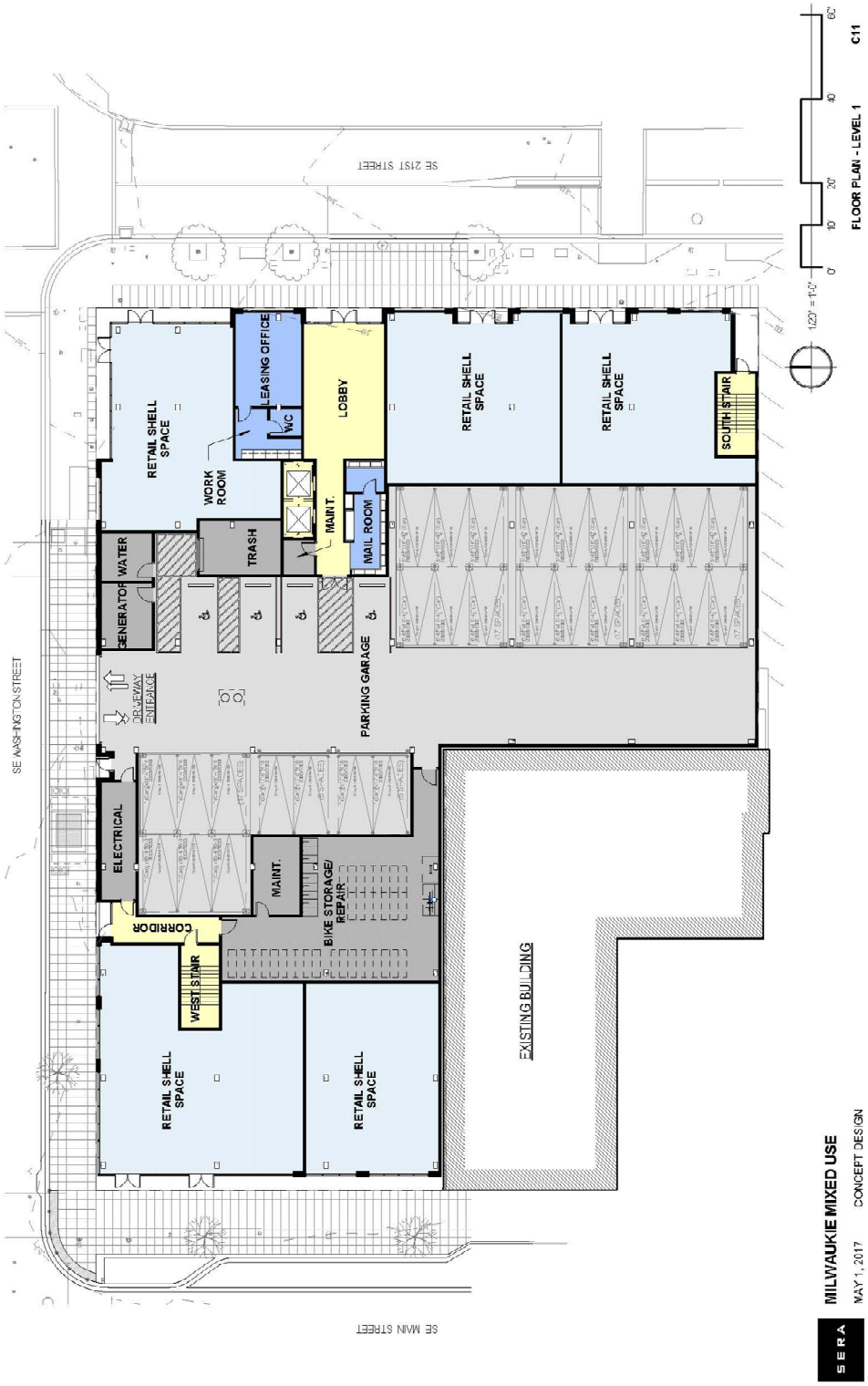
Figure 2 – Conceptual Site Layout (Prepared by Guardian Real Estate Services LLC. Some details subject to change)



SCOPE OF THE REPORT

This report identifies the transportation impacts associated with the proposed project, and was prepared in accordance with the scope of work outline provided by the City of Milwaukie. Accordingly, operational analyses were performed at the following study intersections during the weekday AM and PM peak periods:

- SE Washington Street / SE McLoughlin Boulevard (OR 99E)
- SE Washington Street / SE Main Street
- SE Washington Street / SE 21st Avenue
- SE Washington Street / SE 27th Avenue
- SE Harrison Street/SE 21st Avenue
- SE Lake Road / SE 21st Avenue
- SE Monroe Street / SE McLoughlin Boulevard (OR 99E)
- SE Monroe Street / SE Main Street
- SE Monroe Street / SE 21st Avenue
- Proposed site access driveway/ SE Washington Street

This report evaluates the following transportation issues:

- Existing land use and transportation system conditions within the site vicinity during the weekday AM and PM peak periods;
- Forecast year 2019 background traffic conditions during the weekday AM and PM peak periods;
- Trip generation and distribution estimates for the building; and
- Forecast year 2019 total traffic conditions assuming full buildout of the site.

Analysis Methodology

All level-of-service analyses described in this report were performed in accordance with the procedures stated in the 2010 Highway Capacity Manual (HCM). A description of level of service and the criteria by which they are determined is presented in Appendix "A". Appendix "A" also indicates how level of service is measured and what is generally considered the acceptable range of level of service. To ensure that this analysis was based on a reasonable worst-case scenario, the peak 15 minute flow rate during the peak hour periods was used in the evaluation of all intersections. For this reason, the analysis reflects conditions that are only likely to occur for 15 minutes out of each average peak hour. Traffic conditions during other weekday hours will likely be better than those described in this report.

EXISTING CONDITIONS

This section summarizes the existing characteristics of the transportation system and adjacent land uses in the vicinity of the downtown site, including an inventory of the existing multi-modal transportation facilities and options, an evaluation of existing intersection operations for motor vehicles at the study intersections, and a summary of recent crash history.

Site Conditions and Adjacent Land Uses

The proposed project site is located in downtown Milwaukie on the half-block bounded by SE Main Street to the west, SE Washington Street to the north, and SE 21st Avenue to the east. The site is currently occupied by a vehicle repair center and affiliated parking lot and two other retail tenants all of which will be removed and replaced with the proposed mixed use building. A garden supply store and parking area border the site to the south and will remain unaffected by the proposed project.

Transportation Facilities

Table 1 identifies the characteristics of key roadways located within the site vicinity, including the existing street classifications reflected in the Oregon Department of Transportation's (ODOT) *Oregon Highway Plan* and the City of Milwaukie's *Transportation System Plan* (TSP). Figure 3 identifies the lane configurations and traffic control devices at the study intersections.

Table 1 – Existing Transportation Facilities

Roadway	TSP Classification	Motor Vehicle Travel Lanes	Posted Speed (mph)	Sidewalks	Striped Bicycle Lanes	On-Street Parking
SE McLoughlin Boulevard (OR 99E)	District Highway (ODOT) Arterial (Milwaukie)	5 lanes	30	Yes	Yes	No`
SE Main Street	Collector	2	25	Yes	No[2]	Yes
SE 21st Avenue	Arterial	2	25[1]	Yes	No	Yes
SE 27th Avenue	Neighborhood Route	2	25[1]	Yes	No	Yes
SE Harrison Street	Arterial	2	25	Yes	No	Yes
SE Monroe Street	Collector	2	25	Yes	No	Yes
SE Washington Street	Collector	2	25[1]	Yes	No	Yes
SE Lake Road	Arterial	2	30[1]	Yes	No[2]	No

[1] School zone speed signs of 20 mph are posted on these roadways within the vicinity of Milwaukie High School and Milwaukie Elementary School.
[2] As part of the recent Milwaukie/Main Street MAX Station construction, a short segment of SE Lake Road south of the SE Main Street intersection was reconstructed with striped bike lanes. In addition, a short segment of SE Main Street west of the SE Lake Road intersection was reconstructed with shared bike lane markings.

Transit Service

The site is adjacent to the Milwaukie/Main Street MAX Station which accommodates the MAX Orange Line. A reconstructed sidewalk network links the site along SE Washington Street and SE 21st Avenue directly to the MAX station providing a convenient and fully accessible route to this major regional light rail line.

In addition to the adjacent MAX line and station, multiple bus lines directly serve the site or have stops within a 1-block radius. TriMet bus route #29 (Lake/Webster Road), #32 (Oatfield), #33 (McLoughlin/King Road), and #34 (Linwood/River Road) have existing stops (with shelters) at the SE Washington Street/SE 21st Avenue intersection. Within a three-block radius, the site is served by #30 (Estacada), #70 (12th/NE 33rd Ave), #75 (Cesar Chavez/Lombard), and #99 (Macadam/McLoughlin) bus routes. Of these routes, both the Orange Line and #33 (Macadam/McLoughlin) provide "Frequent Service" running everyday with 15-minute headways or better most of the day.

Active Transportation

Pedestrian Facilities

As documented in Table 1, sidewalks are provided on all streets that front the proposed project site, most having recently been reconstructed and widened as part of the new Milwaukie/Main Street MAX Station. Beyond the site frontage, the sidewalk network is comprehensive providing local and regional accessibility to the surrounding Downtown Milwaukie uses and adjacent residential neighborhoods.

The proposed project site is located within the Milwaukie Elementary School (a 0.34 mile walking distance to the east along SE Washington Street and SE 27th Avenue), Rowe Middle School (a 0.86 mile walking distance to the southeast along SE Lake Road), and Milwaukie High School (a 0.10 mile walking distance to the east along SE Washington Street) school boundaries. The North Clackamas School District has completed "Safe Walk Path Maps" for the transportation network located within each school boundary. A review of the maps indicates that there is a sidewalk and intersection crosswalk network between the project site and all three school sites. Furthermore, the maps and a subsequent field inventory indicated that there are no physical walking barriers between the site and each school site. For each school, the maps suggest that students do not cross the light rail tracks. Instead, walking routes suggest using the SE Main Street underpass.

Bicycle Facilities

The only continuous striped bicycle lanes on the surrounding roadway network are located along SE McLoughlin Boulevard. As part of the recent Milwaukie/Main Street MAX Station construction, a short segment of SE Lake Road south of the SE Main Street intersection was reconstructed with striped bike lanes. In addition, a short segment of SE Main Street west of the SE Lake Road intersection was reconstructed with shared bike lane markings.

Existing Vehicular Operations

Manual turning movement counts were collected at the study intersections in April 2017 when local schools were in session. Traffic counts were collected during the 7:00 to 9:00 AM and 4:00 to 6:00 PM peak time periods. *Appendix "B" contains the traffic count worksheets*. Figure 3 and Table 2 summarizes the operational analysis for the study intersections during the weekday AM and PM peak hours. As

shown in Table 2, all intersections currently operate at acceptably level of service and v/c mobility targets. *Appendix "C" contains the 2017 existing conditions operational worksheets*.

Table 2 - 2017 Existing Traffic Conditions

Intersection	Minimum Acceptable Measure of Effectiveness	Weekday AM Peak Hour		Weekday PM Peak Hour	
		LOS	V/C	LOS	V/C
Signalized					
OR 99E/SE Monroe Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	A	0.58	A	0.69
OR 99E/SE Washington Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	B	0.69	B	0.81
SE 21st Avenue/SE Washington Street	LOS D	A	0.15	A	0.16
Unsignalized[1]					
SE Main Street/SE Monroe Street	LOS D	A	0.12	A	0.06
SE Main Street/SE Washington Street	LOS D	A	0.21	A	0.26
SE 21st Avenue/SE Harrison Street	LOS D	B	0.39	B	0.40
SE 21st Avenue/SE Monroe Street	LOS D	A	0.15	A	0.09
SE 21st Avenue/SE Lake Street	LOS D	A	0.20	A	0.19
SE 27th Avenue/SE Washington Street	LOS D	B	0.30	B	0.06

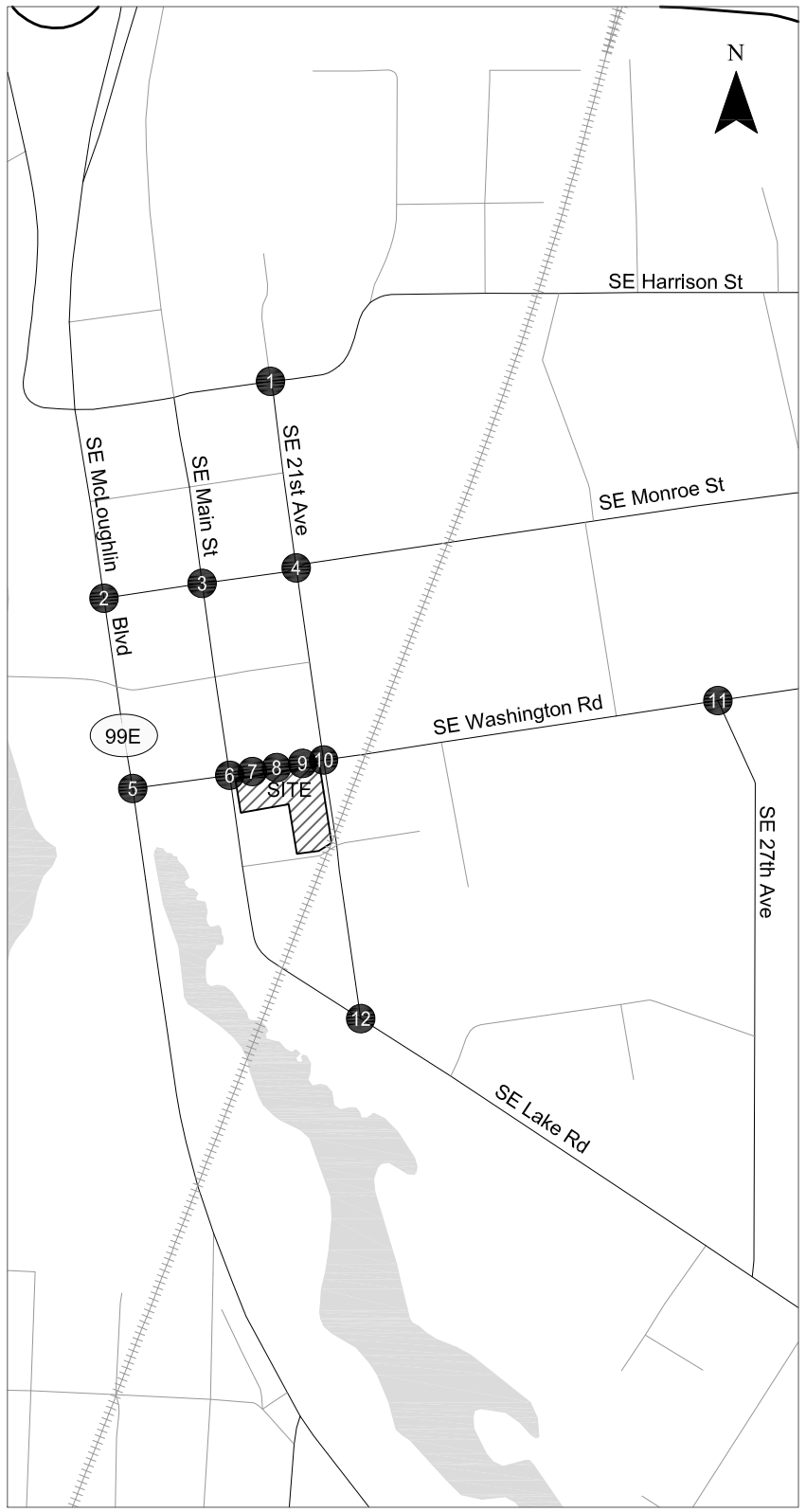
[1] LOS and V/C for unsignalized intersections reported for the highest delay or critical movement.

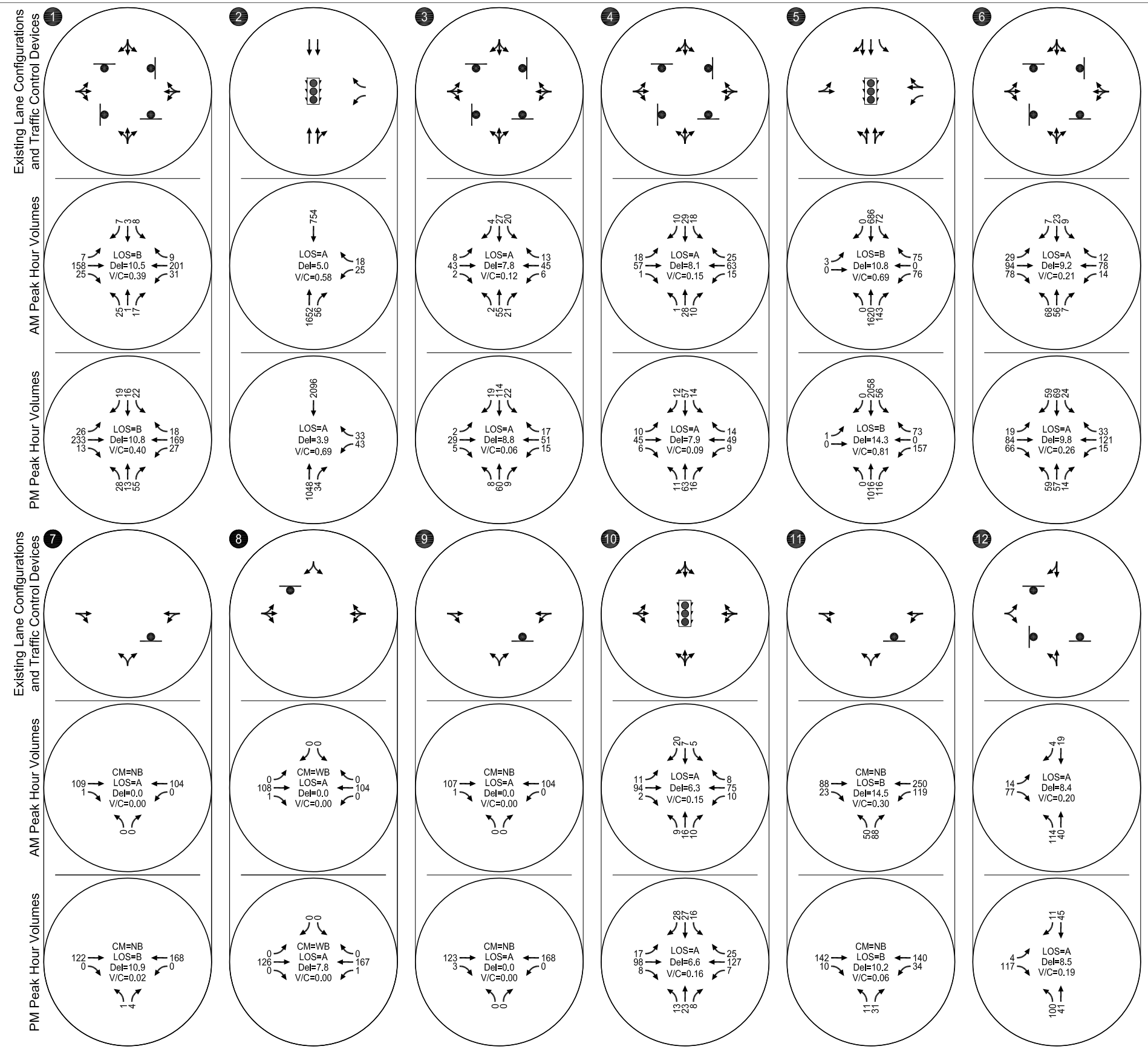
Crash History Analysis

Intersection crash histories were reviewed in an effort to identify potential intersection safety issues. Crash data for the study intersections were obtained from the Oregon Department of Transportation (ODOT) for the five-year period from January 1, 2011 through December 31, 2015. Table 3 illustrates the crashes reported at the study intersections. *Appendix "D" contains the ODOT crash data*.

Table 3 – Intersection Crash History

Intersection	Collision Type						Severity		Total Crashes
	Rear-End	Turning	Angle	Bicycle	Pedestrian	Fixed Object	PDO	Injury	
OR 99E/SE Monroe Street	4	0	0	1	0	0	0	5	5
SE Main Street/SE Monroe Street	0	0	0	0	0	0	0	0	0
SE 21st Avenue/SE Monroe Street	0	0	0	0	0	0	0	0	0
OR 99E/SE Washington Street	5	1	0	1	1	0	3	5	8
SE Main Street/SE Washington Street	1	0	1	0	0	0	2	0	2
SE 21st Avenue/SE Washington Street	0	0	0	0	0	0	0	0	0
SE 27th Avenue/SE Washington Street	0	0	0	0	1	0	0	1	1
SE 21st Avenue/SE Lake Street	0	0	0	0	0	1	1	0	1





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Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED)/CRITICAL MOVEMENT CONTROL DELAY (UNSIGNALIZED)
V/C = CRITICAL CRITICAL VOLUME-TO-CAPACITY RATIO

Year 2017 Existing Traffic Conditions
Weekday AM & PM Peak Hour
Milwaukie, Oregon

Figure 3

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Critical crash rates were calculated for the intersection following the analysis methodology presented in ODOT's *SPR 667 Assessment of Statewide Intersection Safety Performance*. SPR 667 provides average crash rates at a variety of intersection configurations in Oregon based on number of approaches and traffic control types. The average crash rate represents the approximate number of crashes that are "expected" at an intersection. Additionally, this average crash rate was used to calculate the critical crash rate for the intersection, based on the *Highway Safety Manual* methodology. The critical crash rate is calculated for the intersection based on the average crash rate for each facility and serves as a threshold for further analysis.

Table 4 summarizes the critical crash rates for the intersection and compares those values to the observed crash rate. Per ODOT, if the observed crash rate at the study location exceeds the critical rate, it is a possible indication that the location is exceeding average crash rates. As shown in Table 4, the observed crash rate at the study intersections do not exceed the critical crash rate based on volume or the critical crash rate based on intersection type.

Table 4 – Intersection Crash Rate Assessment

Intersection	Total Crashes	Critical Crash Rate by Intersection Type	Critical Crash Rate by Volume	Observed Crash Rate at Intersection	Observed Crash Rate > Critical Crash Rate?
OR 99E/SE Monroe Street	5	0.63	0.54	0.08	No
SE Main Street/SE Monroe Street	0	0.57	0.46	0.00	No
SE 21st Avenue/SE Monroe Street	0	0.60	0.49	0.00	No
OR 99E/SE Washington Street	8	0.63	0.54	0.13	No
SE Main Street/SE Washington Street	2	0.46	0.37	0.18	No
SE 21st Avenue/SE Washington Street	0	0.97	0.86	0.00	No
SE 27th Avenue/SE Washington Street	1	0.44	0.45	0.15	No
SE 21st Avenue/SE Lake Street	1	0.72	0.75	0.42	No

Crash Data Implications

Based on the reported crash data, the observed crash rate does not exceed the critical crash rate based on volume or by intersection. No clear trends in the reported crash data were identified related to specific turning movements. Therefore, no safety-based mitigations are recommended in conjunction with the proposed project.

TRAFFIC IMPACT ANALYSIS

The traffic impact analysis identifies how the study area's transportation system will operate upon redevelopment of the site. The impact of site-generated weekday AM and PM peak hour trips was examined as follows:

- Planned developments and transportation improvements in the site vicinity were identified and reviewed;
- Year 2019 background traffic conditions (build-out year of the proposed development without site-generated traffic) were analyzed at the study intersections;
- Future peak hour site-generated trips were estimated for build-out of the site;
- A trip distribution pattern was prepared and the site-generated trips were distributed to the study area intersections;
- Existing traffic patterns were adjusted to account for new roadway infrastructure;
- Forecast year 2019 total traffic conditions were analyzed during the weekday AM and PM, peak hours with build-out of the site; and
- On-site circulation and site-access operations were evaluated.

2019 BACKGROUND CONDITIONS

The year 2019 background traffic analysis identifies how the study area's transportation system will operate without the proposed development but within the anticipated buildout period. This analysis accounts for traffic attributed to planned developments within the study area and includes general growth in the region, but does not include traffic from the proposed project.

Planned Developments and Transportation Improvements

Per discussions with City staff, there is one approved in-process development in the immediate site vicinity that would impact the study intersections. Northwest Housing Alternatives (NHA) will be redeveloping their existing Milwaukie campus to include new NHA office space, a new emergency family shelter, and new affordable housing. The site-generated trips from this development were included in the 2019 background traffic volumes.

There are no transportation improvements identified for any of the study intersections or roadways within the specific time-frame of this study that would have a measurable impact on the future operations analysis.

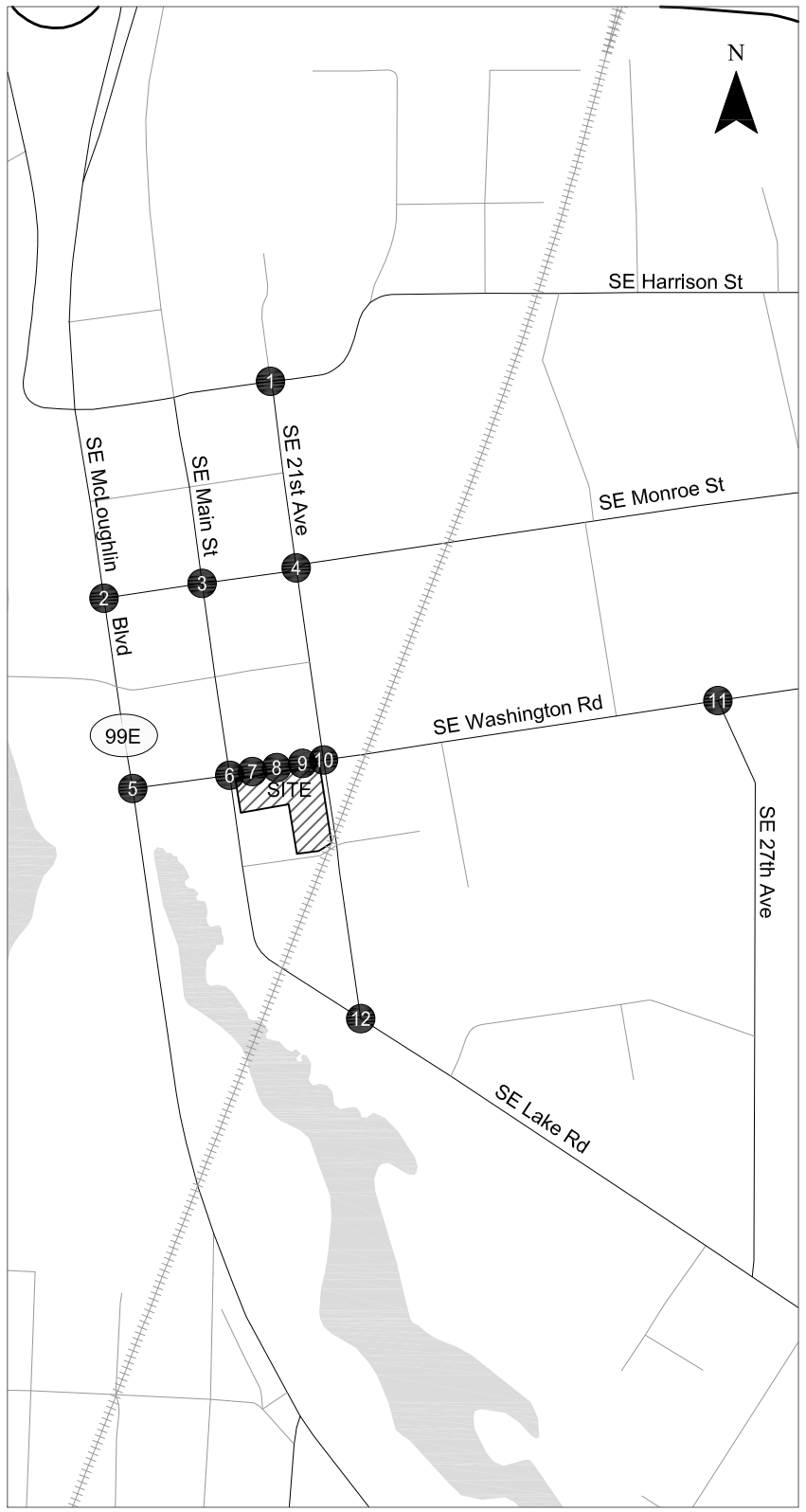
2019 Background Operations

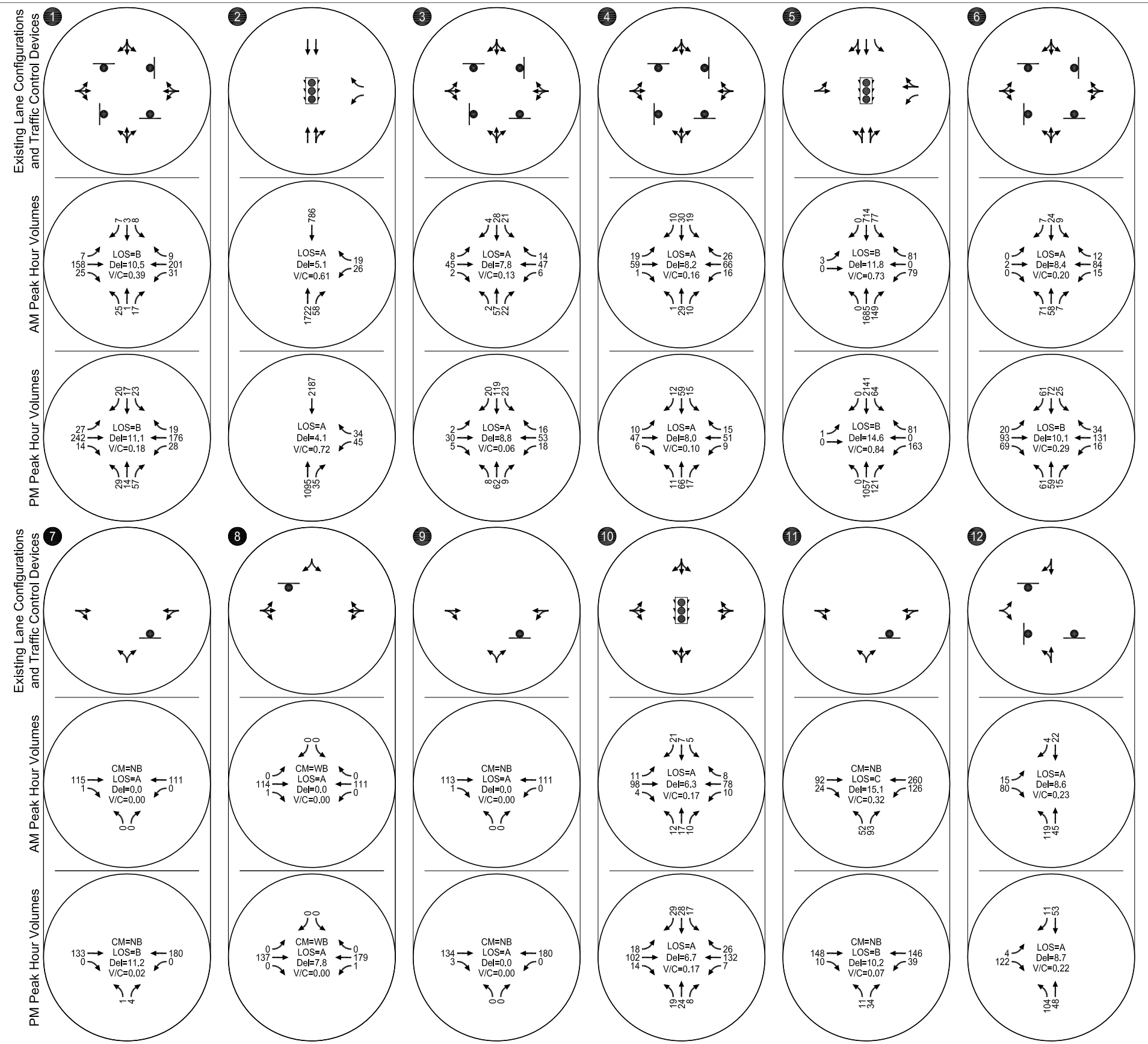
To account for future through traffic growth in the region, a 2 percent annual growth rate was used to forecast the future background traffic volumes. This growth rate is generally consistent with the rates used in the City's Transportation System Plan. Figure 4 and Table 5 summarize the resulting forecast 2019 background traffic conditions for the study intersections during the weekday AM and PM peak hours. As shown, all intersections are forecast to continue to operate acceptably. *Appendix "E" contains the 2019 background operations worksheets.*

Table 5 - 2019 Background Traffic Conditions

Intersection	Minimum Acceptable Measure of Effectiveness	Weekday AM Peak Hour		Weekday PM Peak Hour	
		LOS	V/C	LOS	V/C
Signalized					
OR 99E/SE Monroe Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	A	0.61	A	0.72
OR 99E/SE Washington Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	B	0.73	B	0.84
SE 21st Avenue/SE Washington Street	LOS D	A	0.17	A	0.17
Unsignalized[1]					
SE Main Street/SE Monroe Street	LOS D	A	0.13	A	0.06
SE Main Street/SE Washington Street	LOS D	A	0.21	B	0.29
SE 21st Avenue/SE Harrison Street	LOS D	B	0.39	B	0.40
SE 21st Avenue/SE Monroe Street	LOS D	A	0.16	A	0.10
SE 21st Avenue/SE Lake Street	LOS D	A	0.23	A	0.22
SE 27th Avenue/SE Washington Street	LOS D	C	0.32	B	0.07

[1] LOS and V/C for unsignalized intersections reported for the highest delay or critical movement.





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V/C = CRITICAL CRITICAL VOLUME-TO-CAPACITY RATIO

Year 2019 Background Traffic Conditions
Weekday AM & PM Peak Hour
Milwaukie, Oregon

Figure
4

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PROPOSED REDEVELOPMENT PLAN

As previously described and illustrated in Figure 2, development of the proposed 5-story apartment/retail building will include:

- Closure and removal of the existing auto repair shop and affiliated off-street parking lot.
- Closure of the three SE Washington Avenue site driveways serving the auto repair shop.
- 109 apartment units.
- 8,830 square feet of ground floor retail space.
- A 77-stall parking garage that utilizes a mechanized stacked parking system. Access to the parking garage will be via a single entrance located off of SE Washington Street in the approximate location of the existing eastern-most garage repair shop driveway.
- A 109-stall secure bicycle parking area adjacent to the parking garage.

Trip Generation

Table 6 summarizes the estimated daily, AM peak hour, and PM peak hour generated trips for the proposed apartments. In addition to the apartment units, Table 6 includes trips representing approximately 8,830 square feet of ground-floor commercial space (the specific tenants are not known at this time). A ten-percent transit reduction was assumed for the apartment uses, consistent with measured rates for transit-oriented development in the Portland metropolitan area.

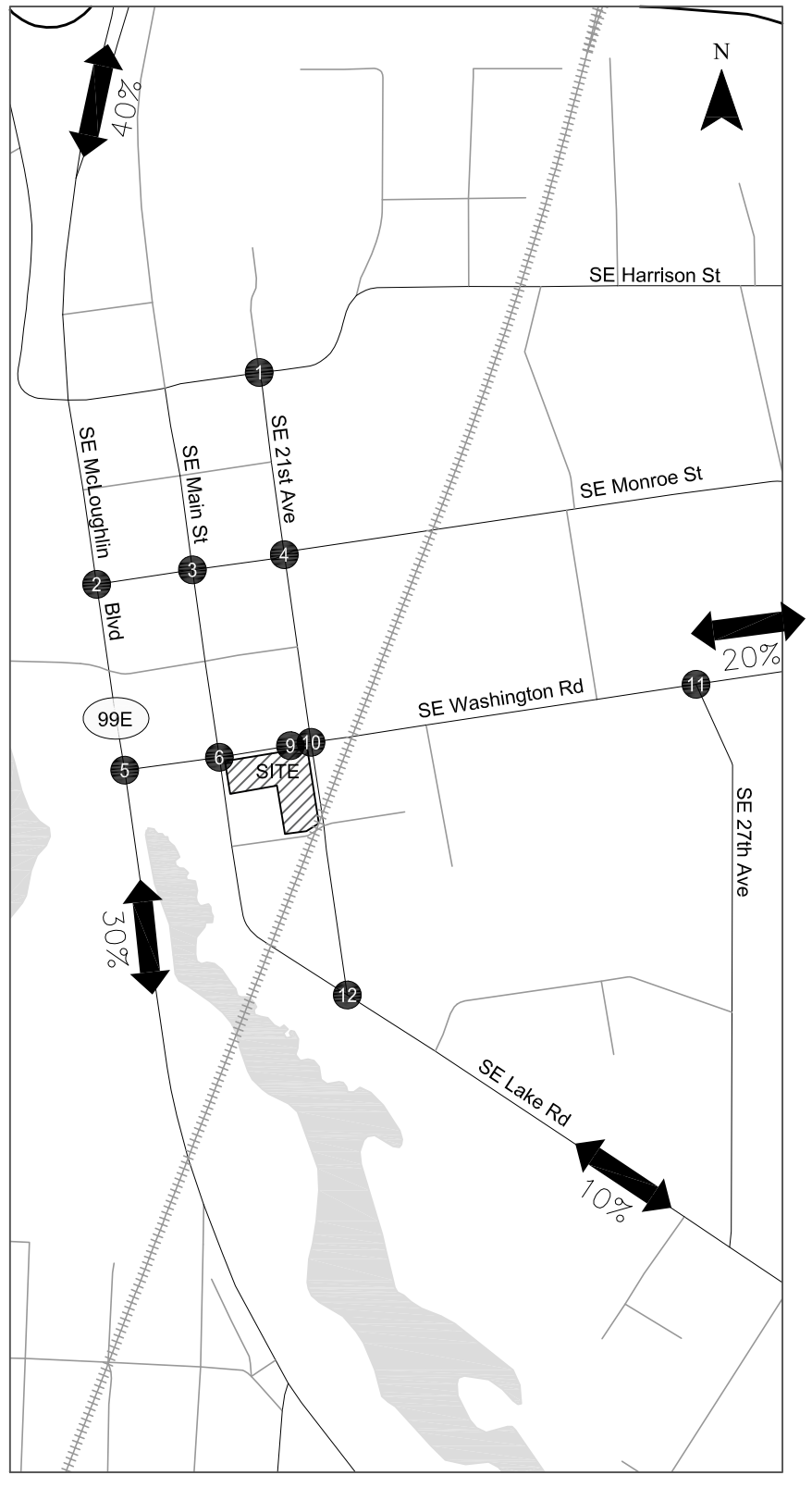
Table 6 - Trip Generation Estimate

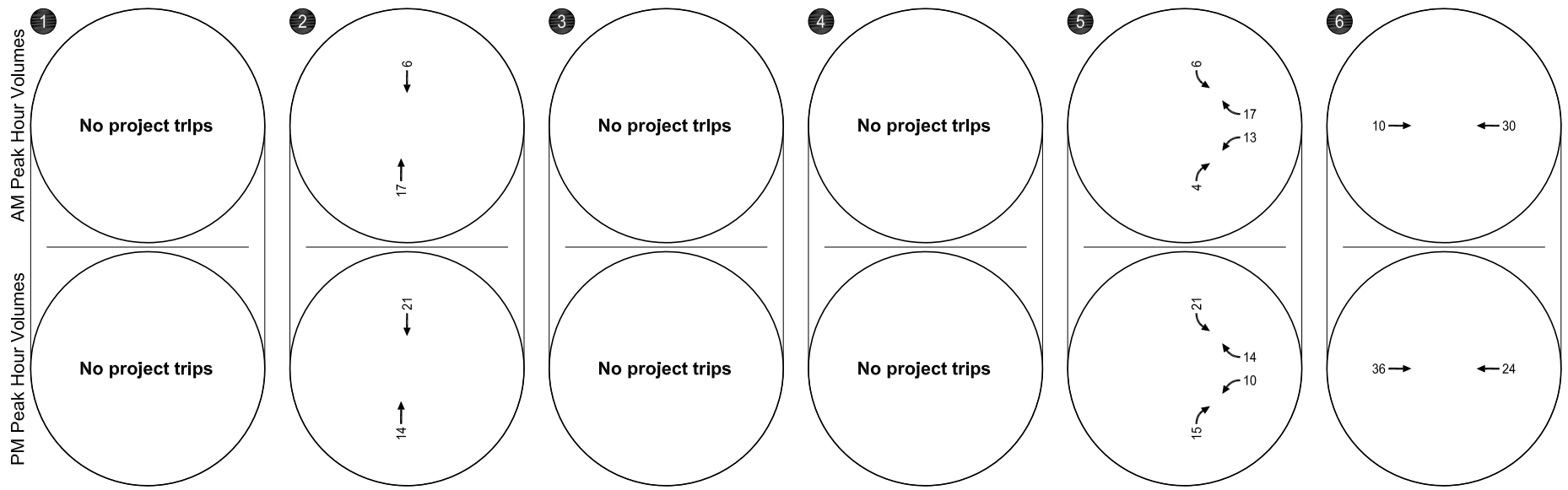
Land Use	ITE Code	Size (units)	Daily Trips	Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
				Total	In	Out	Total	In	Out
Apartment	220	109	724	56	11	45	68	44	24
Transit Reduction (10%)			*(70)*	*(5)*	*(1)*	*(4)*	*(6)*	*(4)*	*(2)*
Shopping Center[1]	820	8,830 sq. ft.	378	8	5	3	33	16	17
Pass-by Trips (34%)			*(128)*	*(2)*	*(1)*	*(1)*	*(10)*	*(5)*	*(5)*
Total New Trips			**1,102**	**64**	**16**	**48**	**101**	**60**	**41**
Total Net New Trips			**904**	**57**	**14**	**43**	**85**	**51**	**34**

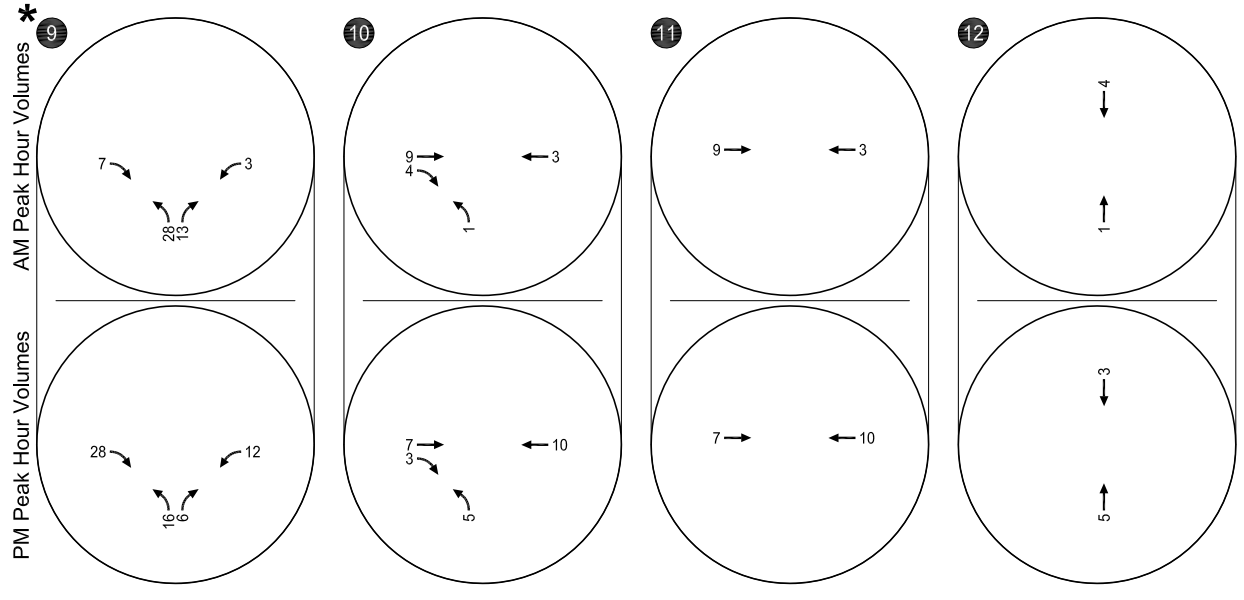
[1] Trip rates are per ITE Land Use 820, Shopping Center average rate
[2] Reflects 34% pass-by trips per ITE Land Use 820, Shopping Center

Site Trip Distribution/Trip Assignment

The net new site-generated trips shown in Table 6 were distributed onto the study area roadway system based on a combination of existing traffic counts at the study area intersections and observed traffic patterns within the site vicinity. Figure 5 illustrates the trip distribution pattern and the assignment of new site-generated trips to the study area intersections during the weekday AM and PM peak hours.







*** Note: The proposed parking garage will be for apartment residents only. All trips generated by the proposed ground floor retail are assumed to be absorbed by the surrounding on-street parking.**

Estimated Site Generated Trip Distribution
Weekday AM & PM Peak Hour
Milwaukie, Oregon

Figure 5

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2019 Total Traffic Operations

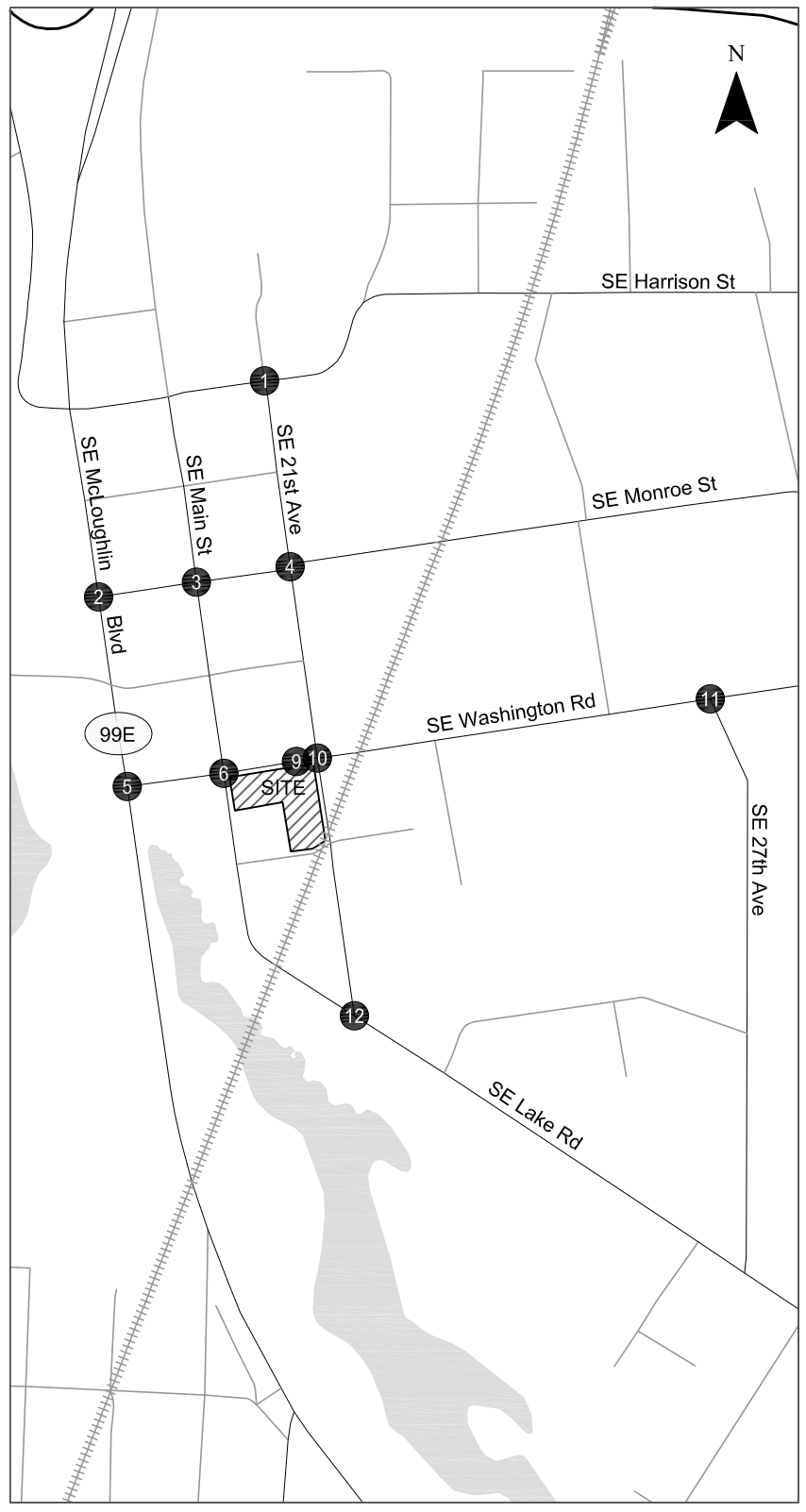
The year 2019 background traffic volumes for the weekday AM and PM peak hours (shown in Figure 4) were combined with the site-generated traffic (shown in Figure 5) to arrive at the total traffic volumes that are shown in Figure 6.

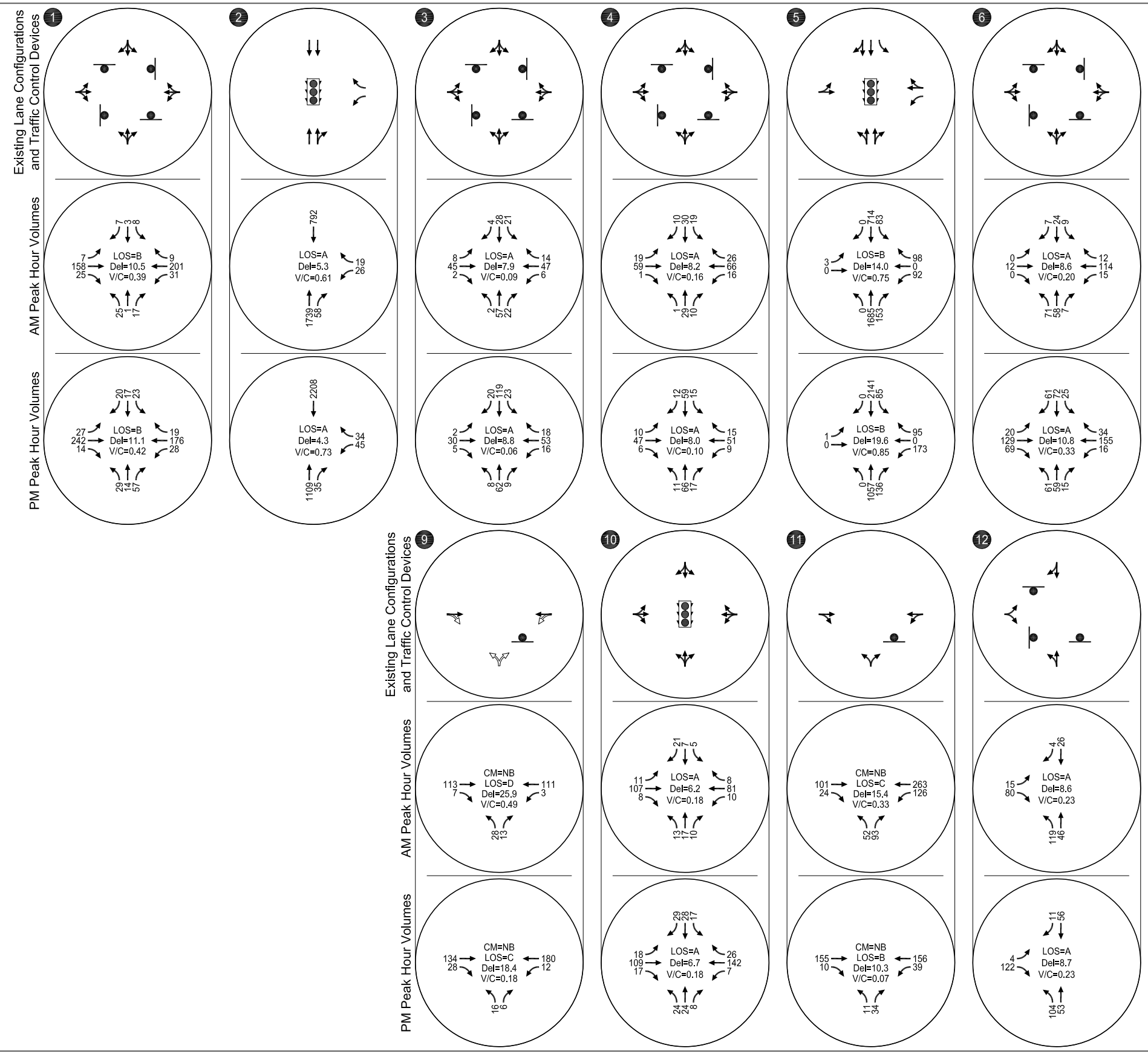
Figure 6 and Table 7 summarize the forecast 2019 total traffic conditions for the study intersections during the weekday AM and PM peak hours. As shown, all study intersections and site driveways are forecast to operate acceptably. As such, no capacity-based mitigation measures are needed to support site redevelopment. Furthermore, no signalization or turn lane improvements are needed at the study intersections to support the proposed project. Appendix "F" contains the 2019 total traffic conditions operational worksheets.

Table 7 - 2019 Total Traffic Conditions

Intersection	Minimum Acceptable Measure of Effectiveness	Weekday AM Peak Hour		Weekday PM Peak Hour	
		LOS	V/C	LOS	V/C
Signalized					
OR 99E/SE Monroe Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	A	0.61	A	0.73
OR 99E/SE Washington Street	v/c 1.1 - 1st Hour v/c 0.99 - 2nd Hour	B	0.75	B	0.85
SE 21st Avenue/SE Washington Street	LOS D	A	0.18	A	0.18
Unsignalized[1]					
SE Main Street/SE Monroe Street	LOS D	A	0.09	A	0.06
SE Main Street/SE Washington Street	LOS D	A	0.21	B	0.33
SE 21st Avenue/SE Harrison Street	LOS D	B	0.39	B	0.42
SE 21st Avenue/SE Monroe Street	LOS D	A	0.16	A	0.10
SE 21st Avenue/SE Lake Street	LOS D	A	0.23	A	0.23
SE 27th Avenue/SE Washington Street	LOS D	C	0.33	B	0.07

[1] LOS and V/C for unsignalized intersections reported for the highest delay or critical movement.





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V/C = CRITICAL CRITICAL VOLUME-TO-CAPACITY RATIO

Year 2019 Total Traffic Conditions
Weekday AM & PM Peak Hour
Milwaukie, Oregon

Figure 6

Proposed Apartment Garage Access

Access to the parking garage is proposed via a new driveway located on the SE Washington Street. The driveway is proposed to be located approximately 76 feet west of SE 21st Avenue and 132 feet east of SE Main Street. These distances do not meet the City of Milwaukie's 300 foot minimum spacing standard for accessways on a collector street (SE Washington Avenue). As such, a detailed review of the proposed driveway operations has been performed to support a formal modification of the access spacing standard as allowed under Section 12.16.040.2 of the Milwaukie Municipal Code.

Garage Entry Details

The proposed parking garage will have a secured gated entry. A 24-foot wide security gate will be located at the property line which will be approximately 22 feet from the SE Washington Street curbline. The garage door is proposed to be a ventilated sectional overhead door 10 feet in height. Per manufacturing information, this style of garage door opens at a rate of 1 foot per second. These speeds would enable the door to fully open within 10 seconds. The garage door will remain in a closed position unless activated by a resident. Residents will be issued a transmitter control to remotely activate the garage door from their vehicle.

Vehicle Queuing Analysis Methodology

A vehicle queuing analysis was prepared to ensure that the parking garage access to SE Washington Street will operate in a safe and efficient manner without creating queuing conflicts with other on-street vehicles or pedestrians on the adjacent sidewalk. For the analysis, queues were estimated using a methodology outlined in the ITE Traffic Engineering Handbook 6th Edition (Reference 1). The analysis is based on the physical characteristics of the proposed driveway to the parking garage, expected traffic demand, and security gate performance specifications. This analysis considers the arrival rate of vehicles (using a Poisson distribution to account for random arrivals and departures) and the rate that vehicles can be served. Finally, the analysis calculates expected probabilities of vehicle queues lengths.

Garage Traffic Demand

As shown in Table 6, the 109-unit apartment building is estimated to generate a total of 51 (10 in and 41 out) weekday AM peak hour trips and 62 (40 in and 22 out) weekday PM peak hour trips. These inbound and outbound values were used as the inputs for the vehicle queue analysis associated with the security gate to produce a conservative result.

Entering Service Frequency

Drivers will enter the parking garage by making a left- or right-turn from SE Washington Street. After pausing for any pedestrians on the sidewalk and after waiting for the security gate to rise, drivers can enter the parking garage. The service frequency for entering vehicles accounts for the maximum 10 seconds of time needed for the gate to open, plus an additional 5 seconds to account for the possibility

of pedestrians passing by in front of an open gate. These two factors result in an entering service frequency of 15 seconds, which is conservative.

Exiting Service Frequency

When leaving the garage, drivers will make a left- or right-turn onto SE Washington Street, after waiting for the gate to open and pausing for any pedestrians. It was assumed for this analysis that the same adjustment parameters exist for outgoing traffic, resulting in an assumed exiting service frequency of 15 seconds.

Parking Garage Security Gate Location

From a spatial standpoint, the proposed security gate will be located 22 feet from the edge of the curb line of SE Washington Street. This distance is sufficient for a normal sized passenger car to fully exit the travel lane on SE Washington Street and stop in front of a closed security gate.

Vehicle Queuing Analysis Results

Table 8 summarizes the results of the queuing analysis for the proposed parking garage access onto SE Washington Street. *Appendix G provides the queuing calculation worksheet*.

Table 8 – Vehicle Queue Analysis for Parking Garage Access

Queue Length	Cumulative Probability of Queue	
	Entering from SE Washington Street	Existing from Parking Garage
0 Vehicles	83%	83%
1 vehicle or less	97%	97%
2 vehicles or less	100%	100%
3 vehicles or less	100%	100%

Based on the results in the above table, entering queues are estimated to reach only 1 vehicle or less 97% of the time during the critical peak hour of a weekday. More specifically, the estimated 95th percentile queue, a value typically used in traffic engineering for design purposes, lies at the same value of one vehicle or less. Considering the conservative nature of this analysis and how it does not account for the possibility of a second car being able to immediately follow a first car into the garage or at least arrive at a time where the gate is already open, entering queues are not expected to reach two vehicles. The estimated 95th percentile queue for exiting traffic is also one vehicle or less (100%), which can easily be accommodated for the exit lane out of the garage.

To understand the impacts of a one vehicle queue, observations have been made at other private parking garages throughout the metro area. Typically, as drivers approach the garage portal from the street, they activate the door and position their front tires partly on the sidewalk/curb while the gate

opens. If there were pedestrians present along the sidewalk, drivers would typically avoid blocking the entire sidewalk. Depending upon the size of the car, the width of the sidewalk and any adjacent on-street parking would provide an additional buffer that would allow a large majority of the vehicles to be removed from the adjacent travel lane, thus allowing passing through vehicles to slip by in the travel lane. As a result, delays are typically minimal for the adjacent street traffic. Given that it would only take a couple of seconds for a vehicle to travel across the sidewalk while entering the garage threshold, delay to pedestrians is also typically minimal. Based on the proposed garage entry design and the characteristics of the SE Washington Street frontage, similar operating patterns are anticipated with the proposed garage entrance.

Milwaukie Municipal Code Section 15.06.065

As stated in Section 12.16.040.2 of Milwaukie's Municipal Code:

> *Access spacing may be modified with submission of an access study prepared and certified by a registered professional traffic engineer in the State of Oregon. The access study shall assess transportation impacts adjacent to the project frontage within a distance equal to the access spacing requirement established in Subsection 12.16.040.B.1. The access study shall include the following:*
>
> *a. Review of site access spacing and design;*
>
> *b. Evaluation of traffic impacts adjacent to the site within a distance equal to the access spacing distance from the project site;*
>
> *c. Review of all modes of transportation to the site;*
>
> *d. Mitigation measures where access spacing standards are not met that include, but are not limited to, assessment of medians, consolidation of accessways, shared accessways, temporary access, provision of future consolidated accessways, or other measures that would be acceptable to the Engineering Director.*

The proposed parking garage access off of SE Washington Street would be located approximately 76 feet west of the signalized SE 21st Avenue/SE Washington Street intersection and 132 feet east of the SE Main Street/SW Washington Street intersection. Although this spacing does not meet the 300-foot requirements, an adjustment to these standards is appropriate for the following reasons:

- The proposed parking garage is not anticipated to generate a large number of ingress or egress traffic during either the weekday AM or PM peak hours.
- The opening time for the parking garage entry gate allows for efficient ingress/egress movements. As a result, the queuing analysis determined that the maximum inbound queue during the weekday AM peak hour is one vehicle.

- The existing SE Washington Street sidewalk is approximately 22 feet wide. Similar to observations at other garages, it is anticipated that most entering vehicles will utilize all or a portion of this space to pull out of the SE Washington Street travel lane while waiting for the garage access gate to rise. As a result, most other vehicles on SE Washington Street should be able to traverse around a queued garage vehicle. This will minimize the chances of a queue spillback to adjacent intersections.
- The parking garage will be for private apartment use only. As such, it is anticipated that all garage users will be familiar with the setup and entry/exit mechanism, thereby minimizing the chances for driver confusion and additional delay upon entry to the garage.
- The proposed garage is relatively small, so most users are anticipated to drive smaller, more compact vehicles. This will help to minimize the chances of large/oversized vehicles blocking the SE Washington Street travel lane while waiting for the garage gate to open.
- Observed eastbound vehicle queues on SE Washington Street at the SE 21st Avenue approach are relatively short due to the efficient signal phasing and short cycle length. As such, the eastbound vehicle queues are not anticipated to impact the ability for westbound vehicles to turn left into the proposed garage.

Preliminary Driveway Sight Distance Assessments

Given the relatively flat and straight alignment of SE Washington Street, exiting movements at the proposed site driveway are anticipated to have sufficient intersection sight distance when accounting for the 22-foot wide sidewalk environment between the garage threshold and the curb line.

To enhance the safety of pedestrians walking along SE Washington Street, it is recommended that safety mirrors be installed so that exiting drivers can see approaching pedestrian traffic around the garage threshold.

Parking Adequacy

The proposed apartment project will offer mostly studio and one-bedroom apartments with a select number of two-bedroom apartments. This proportion of housing types typically appeals to a younger generation of renters with lower automobile ownership rates and higher use of mass transit. Given its location within downtown Milwaukie and close proximity to a variety of frequent service transit lines, the project will be marketed as such. As a result, it is anticipated that a large number of apartment residents will not own an automobile and instead rely upon alternate forms of transportation such as transit and biking/walking. The proposed 77 garage parking stalls are anticipated to adequately accommodate those residents who will own/use a vehicle as their primary means of transportation.

With regards to the proposed retail uses, specific tenants are not currently known. However, it is anticipated that the spaces will accommodate a variety of downtown-oriented retailers that will be supported in part by the apartment residents and surrounding residential neighborhoods. It is expected

that any trips generated by these uses will utilize the time-restricted on-street parking that is abundant on the adjacent street network and throughout the downtown area.

TRANSPORTATION IMPACT FINDINGS AND RECOMMENDATIONS

Based on the results of this transportation impact analysis, the proposed residential apartment building project can be developed while maintaining acceptable levels of service at the study intersections. The findings and recommendations of this analysis are summarized below.

Existing Conditions

- All study intersections currently operate at acceptable operations during the weekday AM and PM peak hours.

Year 2019 Background Conditions

- With the assumed in-process development trips from and 2% annual growth rate, all study intersections are forecast to continue to operate acceptably.

Year 2019 Total Traffic Conditions

- The proposed development is estimated to generated up to up to 57 additional weekday AM peak hour trips and 85 additional weekday PM peak hour trips.
- With the apartments and retail space, all study intersections and the proposed site driveway are forecast to continue to operate acceptably.
- The proposed parking garage driveway on SE Washington Street does not meet the City of Milwaukie's 300 foot minimum spacing standard for accessways on a collector street (SE Washington Avenue). However, a detailed review of the proposed driveway operations found the following:
    - Using conservative values for security gate operations, inbound queues are estimated to be one vehicle or less 97 percent of the time during the critical PM peak hour. Given the width of the sidewalk environment, these results indicate queues are not likely to extend back into the adjacent through travel lane on SE Washington Street. As such, the reduced access spacing is not anticipated to have an operational impact on SE Washington Street.
- The proposed garage exiting movement on SE Washington Street is anticipated to have sufficient intersection sight distance.
- The proposed parking garage will be adequate to support those apartment residents who own/utilize a car on a daily basis.

RECOMMENDATIONS

The following list summarizes improvements recommended in conjunction with site development:

- Install safety mirrors at the threshold of the proposed parking garage egress point so that exiting drivers can see approaching pedestrian traffic on SE Washington Avenue.
- Any new landscaping or signage along the SE Washington Street site frontage should be installed and maintained to ensure they do not interfere with vision clearance triangles.

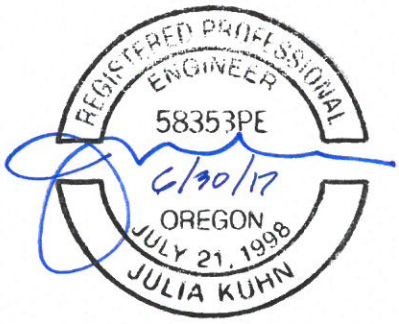
We trust this letter adequately addresses the traffic impacts associated with the proposed Project Galaxy development. Please contact us if you have any questions.

Sincerely,
KITTELSON & ASSOCIATES, INC.

Matt Hughart, AICP
Associate Planner

Yi-Min Ha
Transportation Analyst

Julia Kuhn, P.E.
Senior Principal Engineer



Appendix A HCM 2010 Level of Service Description

3. LEVEL OF SERVICE

DEFINITION

LOS defined.

LOS is a quantitative stratification of a performance measure or measures that represent quality of service. The measures used to determine LOS for transportation system elements are called *service measures.* The HCM defines six levels of service, ranging from A to F, for each service measure, or for the output from a mathematical model based on multiple performance measures. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst. For cost, environmental impact, and other reasons, roadways are not typically designed to provide LOS A conditions during peak periods, but rather some lower LOS that reflects a balance between individual travelers' desires and society's desires and financial resources. Nevertheless, during low-volume periods of the day, a system element may operate at LOS A.

LOS is measured on an A–F scale. LOS A represents the best conditions from a traveler's perspective.

USAGE

LOS is used to translate complex numerical performance results into a simple A–F system representative of travelers' perceptions of the quality of service provided by a facility or service. The LOS letter result hides much of the complexity of facility performance. This feature is intended to simplify decision making on whether facility performance is generally acceptable and whether a future change in performance is likely to be perceived as significant by the general public. The language of LOS provides a common set of definitions that transportation engineers and planners can use to describe operating conditions; however, it is up to local policy makers to decide the appropriate LOS for a given system element in their community. One reason for the widespread adoption of the LOS concept by agencies is the concept's ability to communicate roadway performance to nontechnical decision makers. However, LOS has other strengths and weaknesses, described below, that both analysts and decision makers need to be mindful of.

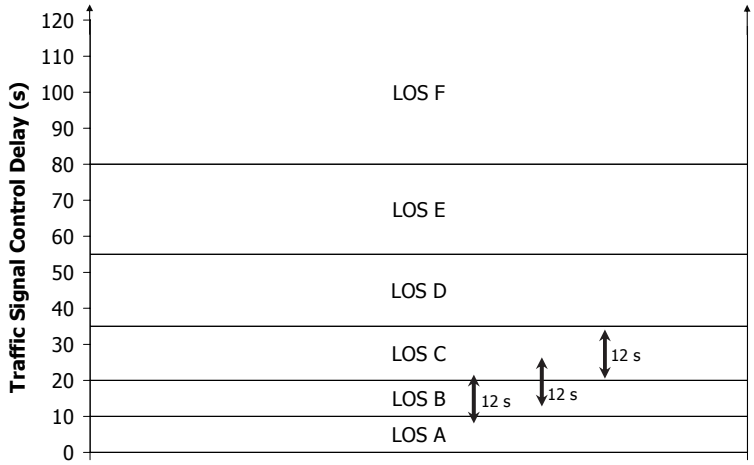
LOS is a useful and widely adopted tool for communicating roadway performance to laypersons and decision makers. However, one should also be mindful of its weaknesses.

Step Function Nature of LOS

LOS is a step function. An increase in average control delay of 12 s at a traffic signal, for example, may result in no change in LOS, a drop of one level, or even a drop of two levels, depending on the starting value of delay, as illustrated in Exhibit 5-1.

From a traveler perception standpoint, the condition shown in Exhibit 5-1 is not necessarily inconsistent. A change of LOS indicates that roadway performance has transitioned from one given range of traveler-perceivable conditions to another range, while no change in LOS indicates that conditions have remained within the same performance range as before. Service measure values indicate where conditions lie within a particular performance range. However, because a small change in a service measure, or the output from a mathematical model based on multiple performance measures, can sometimes result in a change from one LOS to another, the LOS result could imply a more significant effect than actually occurred.

Exhibit 5-1
Example of the Step Function Nature of LOS



Identical changes in the service measure value may result in no change in LOS or a change of one or more levels of service, depending on how close the starting value is to a LOS threshold.

Defining performance standards on the basis of LOS (or any fixed numerical value) means that small changes in performance can sometimes result in the standard being exceeded, when a facility is already operating close to the standard.

This aspect of LOS can be a particularly sensitive issue when agencies define their operational performance standards solely by using LOS. However, the definition of a fixed standard, whether numerically or as a LOS letter, always brings the possibility that a small change in performance can trigger the need for potentially costly improvements.

Variability of the Inputs to LOS

Although computer software that implements HCM methodologies can sometimes report results to many decimal places, three major sources of uncertainty influence service measure values and, thus, the LOS result:

Chapter 7, Interpreting HCM and Alternative Tool Results, discusses sources of uncertainty and their impacts on analysis results in more detail.

1. The models used to estimate service measure values have confidence intervals associated with their outputs;
2. These models may, in turn, rely on the output of other models that have their own associated confidence intervals; and
3. The accuracy of input variables, such as demand flow rate, is taken to be absolute when, in fact, there is a substantial stochastic variation around the measured values.

Models provide a best estimate of service measure values, but the "true" value likely lies within a confidence interval range above or below the estimated value.

Thus, any reported service measure value, whether resulting from an HCM methodology, an alternative tool, or even field measurement, potentially has a fairly wide range associated with it in which the "true" value actually lies. The LOS concept helps to downplay the implied accuracy of a numeric result by presenting a range of service measure results as being reasonably equivalent from a traveler's point of view. Nevertheless, the same variability issues also mean that the "true" LOS value may be different from the one predicted by a methodology. In addition, for any given set of conditions, different travelers may perceive their LOS to be different from one another, as well as different from the LOS estimated by an HCM method. One way of thinking about reported service measure values and the corresponding LOS result is that they are the statistical "best estimators" of conditions and aggregate traveler perception.

Beyond LOS F

The HCM does not subdivide LOS F, but several measures are available to describe the severity of a LOS F condition.

The HCM uses LOS F to define operations that have either broken down (i.e., demand exceeds capacity) or have exceeded a specified service measure value (or combination of service measure values) that most users would consider unsatisfactory. However, particularly for planning applications where different alternatives may be compared, analysts may be interested in knowing just how bad the LOS F condition is. Several measures are available to describe individually, or in combination, the severity of a LOS F condition:

- *Demand-to-capacity ratios* describe the extent to which capacity is exceeded during the analysis period (e.g., by 1%, 15%, etc.).
- *Duration of LOS F* describes how long the condition persists (e.g., 15 min, 1 h, 3 h).
- *Spatial extent measures* describe the areas affected by LOS F conditions. These include measures such as the back of queue and the identification of the specific intersection approaches or system elements experiencing LOS F conditions.

Separate LOS Reporting by Mode and System Element

LOS is reported separately, by mode, for a given system element.

LOS is reported separately for each mode operating on a given system element [although some other modes, such as large trucks, recreational vehicles (RVs), and motorcycles are currently considered members of the automobile model for HCM analysis purposes]. Each mode's travelers have different perspectives and potentially experience very different conditions while traveling along a particular roadway. Using a blended LOS risks overlooking quality of service deficiencies for nonautomobile travelers that discourage the use of those modes, particularly if the blended LOS is weighted by the number of modal travelers. Other measures, such as person-delay, can be used when an analysis requires a combined measure.

Identical values of some service measures (e.g., delay) can produce different LOS results, depending on the system element to which the service measure is applied. The TRB Committee on Highway Capacity and Quality of Service (HCQS Committee) believes that travelers' expectation of performance varies at different system elements (e.g., unsignalized intersections versus signalized intersections) but realizes that further research is needed to understand fully the variation in traveler perceptions of LOS across facility types.

LOS as Part of a Bigger Picture

No single performance measure tells the full story of roadway performance.

Neither LOS nor any other single performance measure tells the full story of roadway performance. Depending on the particulars of a given analysis, queue lengths, demand-to-capacity ratios, average travel speeds, indicators of safety, quantities of persons and vehicles served, and other performance measures may be just as or even more important to consider, whether or not they are specifically called out in an agency standard. For this reason, the HCM provides methods for estimating a variety of useful roadway operations performance measures, and not just methods for determining LOS. Chapter 7, Interpreting

HCM and Alternative Tool Results, lists the major performance measures available from each chapter of Volumes 2 and 3.

Duration of an operating condition can be important to know, since it helps describe the severity of the condition (e.g., the duration of a LOS F condition). In cases where demand exceeds capacity, duration *must* be known in order to set the analysis period long enough so that all demand is served and all relevant performance measures can be calculated properly. Frequency and probability of a particular condition occurring (e.g., likelihood or frequency of queue storage being exceeded during an analysis period) are also useful descriptors.

Appendix B Traffic Counts

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Bernard's East Dwy -- SE Washington St

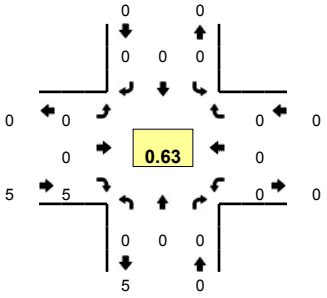
CITY/STATE: Milwaukie, OR

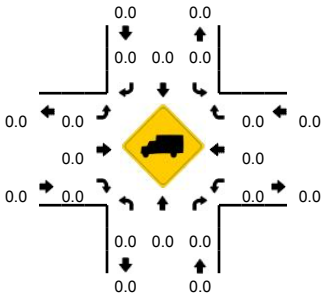
QC JOB #: 14248126

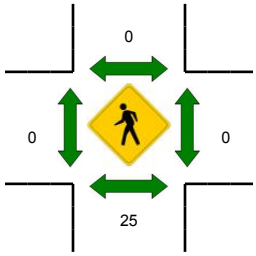
DATE: Tue, Apr 04 2017

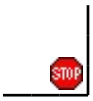
Peak-Hour: 4:00 PM -- 5:00 PM

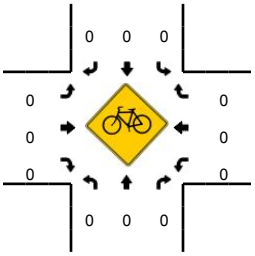
Peak 15-Min: 4:00 PM -- 4:15 PM

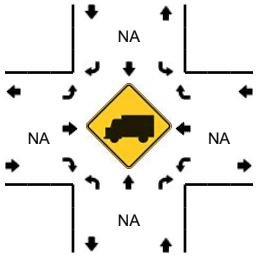


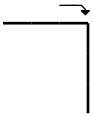


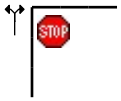


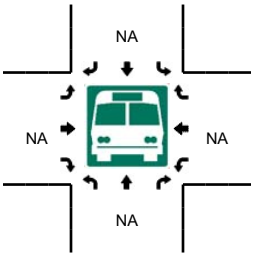












5-Min Count Period Beginning At	Bernard's East Dwy (Northbound)				Bernard's East Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:10 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:20 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:25 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:40 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	1	0	0	0	0	0	1	
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		24				0				0				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Bernard's East Dwy -- SE Washington St

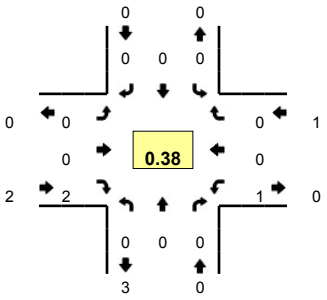
CITY/STATE: Milwaukie, OR

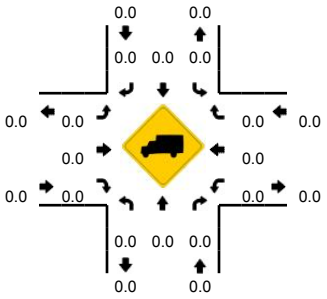
QC JOB #: 14248125

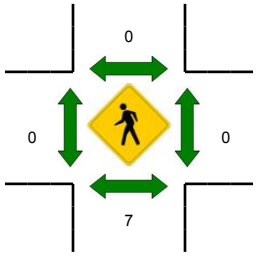
DATE: Tue, Apr 04 2017

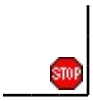
Peak-Hour: 8:00 AM -- 9:00 AM

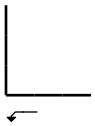
Peak 15-Min: 8:25 AM -- 8:40 AM

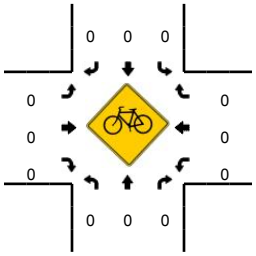


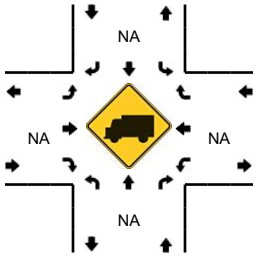


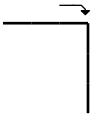


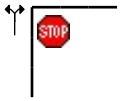


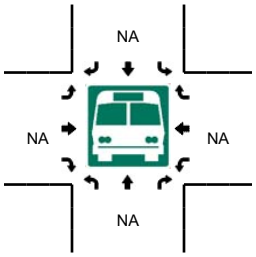












5-Min Count Period Beginning At	Bernard's East Dwy (Northbound)				Bernard's East Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:10 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:25 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:25 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:35 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		12				0				0				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Bernard's Central Dwy -- SE Washington St

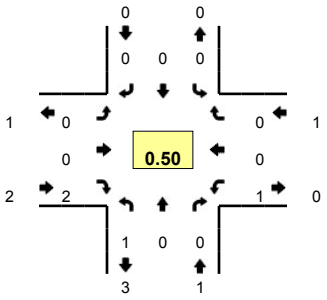
CITY/STATE: Milwaukie, OR

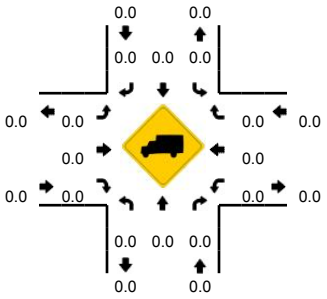
QC JOB #: 14248124

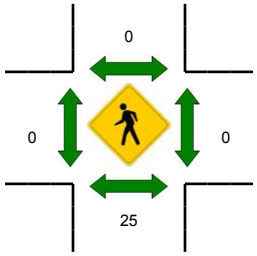
DATE: Tue, Apr 04 2017

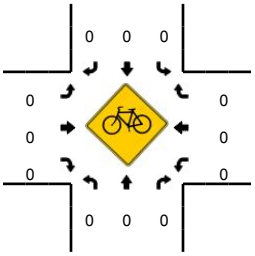
Peak-Hour: 4:00 PM -- 5:00 PM

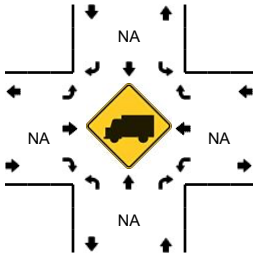
Peak 15-Min: 4:00 PM -- 4:15 PM

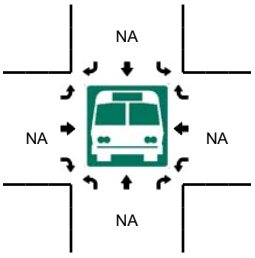












5-Min Count Period Beginning At	Bernard's Central Dwy (Northbound)				Bernard's Central Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:05 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:25 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	
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:40 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	
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:50 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		24				0				0				0			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Bernard's Central Dwy -- SE Washington St

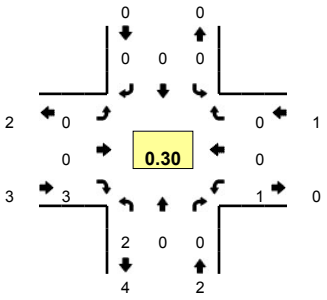
CITY/STATE: Milwaukie, OR

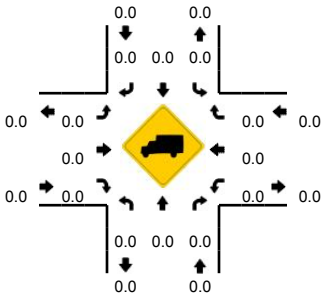
QC JOB #: 14248123

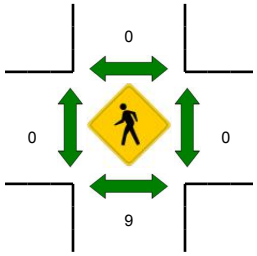
DATE: Tue, Apr 04 2017

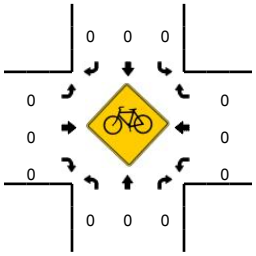
Peak-Hour: 7:55 AM -- 8:55 AM

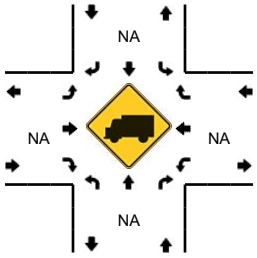
Peak 15-Min: 8:40 AM -- 8:55 AM

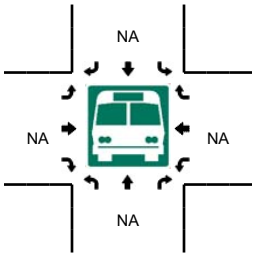












5-Min Count Period Beginning At	Bernard's Central Dwy (Northbound)				Bernard's Central Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:10 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:25 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:50 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:35 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	5
8:50 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	6
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	0	0	0	0	0	0	0	0	12	0	4	0	0	0	20
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

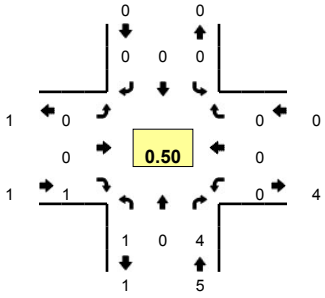
LOCATION: Bernard's West Dwy -- SE Washington St

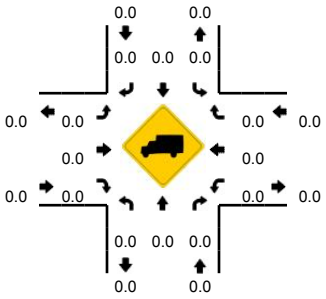
QC JOB #: 14248122

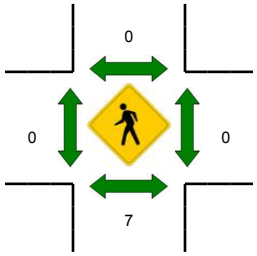
CITY/STATE: Milwaukie, OR

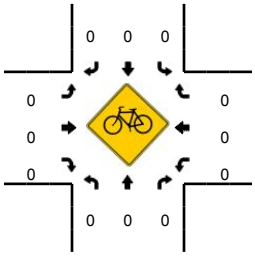
DATE: Tue, Apr 04 2017

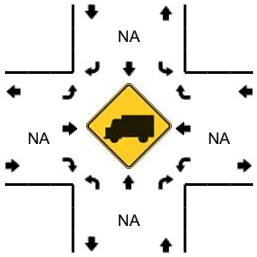
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

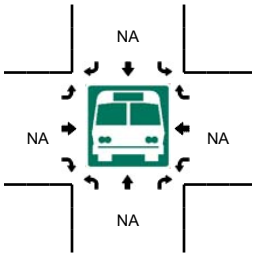












5-Min Count Period Beginning At	Bernard's West Dwy (Northbound)				Bernard's West Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:10 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	
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:25 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	
4:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:40 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:55 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
5:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:10 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
5:50 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	6
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

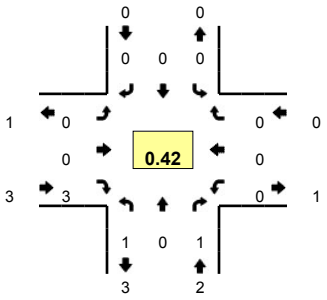
LOCATION: Bernard's West Dwy -- SE Washington St

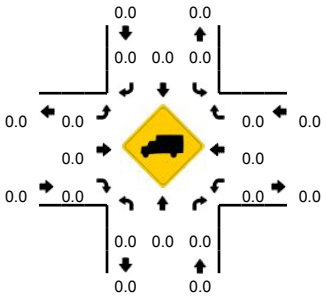
QC JOB #: 14248121

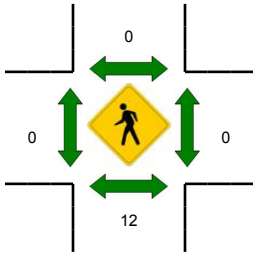
CITY/STATE: Milwaukie, OR

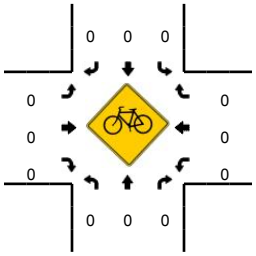
DATE: Tue, Apr 04 2017

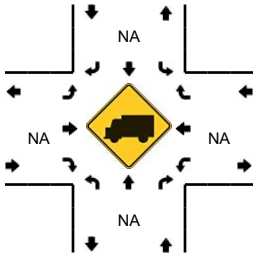
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:40 AM -- 8:55 AM

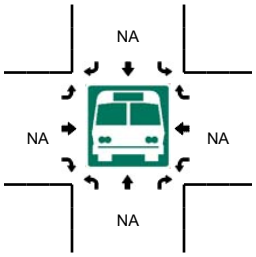












5-Min Count Period Beginning At	Bernard's West Dwy (Northbound)				Bernard's West Dwy (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:10 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:20 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
7:25 AM	0	0	0	0	0	0	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	0	0	0	0	0	0	
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:05 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	4
8:50 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	12
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Harrison St

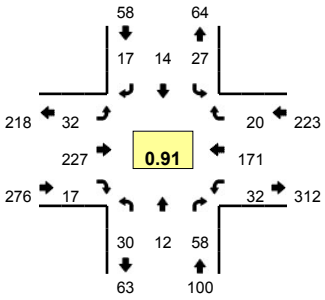
CITY/STATE: Milwaukie, OR

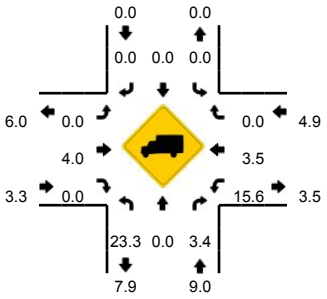
QC JOB #: 14248120

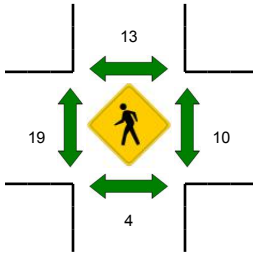
DATE: Tue, Apr 04 2017

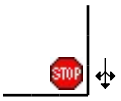
Peak-Hour: 4:45 PM -- 5:45 PM

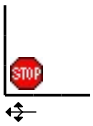
Peak 15-Min: 4:50 PM -- 5:05 PM

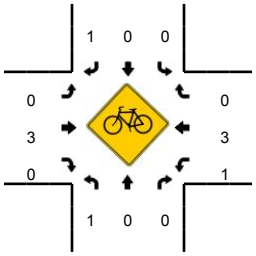


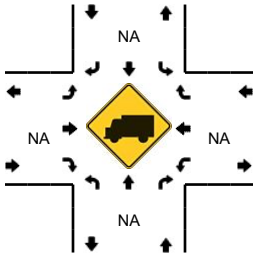


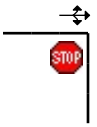


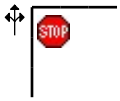


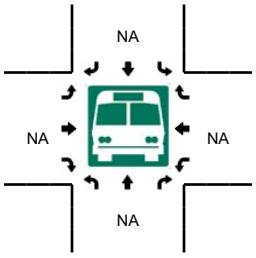












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Harrison St (Eastbound)				SE Harrison St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	1	2	0	3	1	1	0	0	15	2	0	6	10	3	0	46	
4:05 PM	1	2	4	0	2	3	0	0	1	11	2	0	1	9	2	0	38	
4:10 PM	1	0	2	0	0	2	1	0	0	22	3	0	8	28	3	0	70	
4:15 PM	4	0	3	0	0	1	1	0	0	19	1	0	2	7	1	0	39	
4:20 PM	1	1	6	0	1	0	0	0	1	23	1	0	1	18	2	0	55	
4:25 PM	0	2	7	0	4	1	4	0	2	19	2	0	2	15	2	0	60	
4:30 PM	2	4	1	0	2	1	3	0	4	6	0	0	2	18	2	0	45	
4:35 PM	2	0	4	0	4	4	0	0	1	12	0	0	2	10	1	0	40	
4:40 PM	1	0	5	0	0	0	3	0	2	26	2	0	2	16	0	0	57	
4:45 PM	5	2	4	0	1	1	1	0	2	15	2	0	3	11	1	0	48	
4:50 PM	2	0	5	0	4	2	2	0	3	29	1	0	2	11	2	0	63	
4:55 PM	5	1	4	0	4	0	1	0	1	16	1	0	3	16	4	0	56	617
5:00 PM	0	1	7	0	1	2	0	0	5	22	1	0	3	20	0	0	62	633
5:05 PM	3	2	4	0	0	2	2	0	4	24	1	0	0	12	1	0	55	650
5:10 PM	3	0	5	0	1	2	2	0	1	22	1	0	5	15	2	0	59	639
5:15 PM	0	0	4	0	3	2	1	0	4	15	2	0	1	18	2	0	52	652
5:20 PM	2	0	8	0	2	0	0	0	2	8	1	0	5	10	0	0	38	635
5:25 PM	3	2	3	0	2	1	3	0	3	14	1	0	3	13	3	0	51	626
5:30 PM	3	1	1	0	1	0	0	0	3	23	4	0	3	8	1	0	48	629
5:35 PM	4	2	5	0	4	0	3	0	1	19	0	0	2	18	2	0	60	649
5:40 PM	0	1	8	0	4	2	2	0	3	20	2	0	2	19	2	0	65	657
5:45 PM	0	1	1	0	0	1	3	0	0	18	2	0	3	13	1	0	43	652
5:50 PM	4	0	2	0	1	1	2	0	0	18	1	0	4	10	1	0	44	633
5:55 PM	1	1	2	0	1	0	0	0	2	13	2	0	4	11	2	0	39	616

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	8	64	0	36	16	12	0	36	268	12	0	32	188	24	0	724
Heavy Trucks	4	0	0		0	0	0		0	8	0		4	4	0		20
Pedestrians		4				12				32				16			64
Bicycles	0	0	0		0	0	1		0	1	0		1	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Harrison St

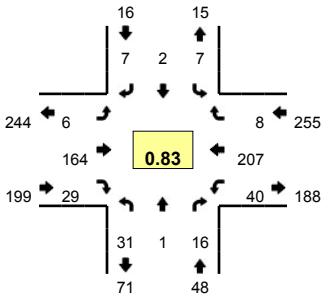
CITY/STATE: Milwaukie, OR

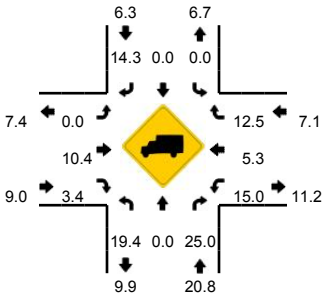
QC JOB #: 14248119

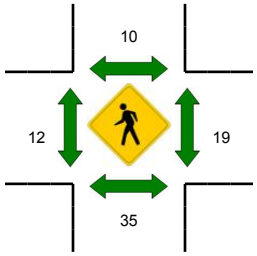
DATE: Tue, Apr 04 2017

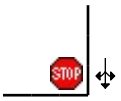
Peak-Hour: 7:50 AM -- 8:50 AM

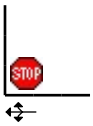
Peak 15-Min: 8:15 AM -- 8:30 AM

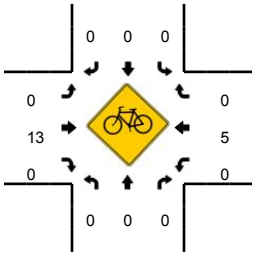


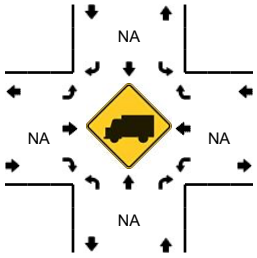


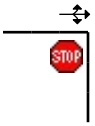


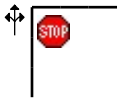


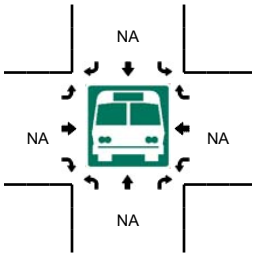












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Harrison St (Eastbound)				SE Harrison St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	0	0	1	0	0	6	3	0	1	9	0	0	21	
7:05 AM	1	0	1	0	0	0	2	0	0	7	1	0	3	8	1	0	24	
7:10 AM	2	0	1	0	0	0	0	0	0	12	1	0	5	12	0	0	33	
7:15 AM	1	0	1	0	0	0	0	0	0	11	1	0	1	15	0	0	30	
7:20 AM	2	0	0	0	0	0	0	0	0	13	0	0	1	11	0	0	27	
7:25 AM	1	0	0	0	1	0	2	0	0	4	0	0	0	10	0	0	18	
7:30 AM	1	0	0	0	0	0	0	0	1	9	1	0	0	13	0	0	25	
7:35 AM	0	0	1	0	0	0	0	0	1	11	4	0	1	15	0	0	33	
7:40 AM	0	1	3	0	1	1	1	0	0	8	1	0	2	17	1	0	36	
7:45 AM	2	0	2	0	1	1	3	0	0	13	0	0	2	17	3	0	44	
7:50 AM	1	0	1	0	1	0	2	0	0	13	1	0	3	20	1	0	43	
7:55 AM	1	0	1	0	1	1	0	0	1	13	3	0	2	13	1	0	37	371
8:00 AM	3	0	0	0	1	0	0	0	1	11	1	0	4	8	0	0	29	379
8:05 AM	4	0	1	0	0	0	0	0	1	16	0	0	4	16	0	0	42	397
8:10 AM	5	0	4	0	0	0	1	0	0	11	2	0	3	21	0	0	47	411
8:15 AM	0	0	1	0	0	0	0	0	0	16	6	0	2	18	0	0	43	424
8:20 AM	2	0	2	0	1	0	0	0	1	24	2	0	6	22	1	0	61	458
8:25 AM	6	0	1	0	2	0	0	0	1	13	4	0	2	21	2	0	52	492
8:30 AM	1	0	1	1	0	1	1	0	0	14	3	0	2	14	1	1	40	507
8:35 AM	1	0	1	0	1	0	2	0	0	5	3	0	4	16	0	0	33	507
8:40 AM	4	1	1	0	0	0	1	0	1	13	2	0	4	15	1	0	43	514
8:45 AM	2	0	2	0	0	0	0	0	0	15	2	0	3	23	1	0	48	518
8:50 AM	0	0	2	0	0	0	0	0	0	8	0	0	2	14	0	0	26	501
8:55 AM	2	0	2	0	0	0	2	0	2	13	0	0	2	26	1	0	50	514

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	0	16	0	12	0	0	0	8	212	48	0	40	244	12	0	624
Heavy Trucks	8	0	4		0	0	0		0	4	4		4	8	0		32
Pedestrians		76				12				4				28			120
Bicycles	0	0	0		0	0	0		0	6	0		0	1	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 27th Ave -- SE Lake Rd

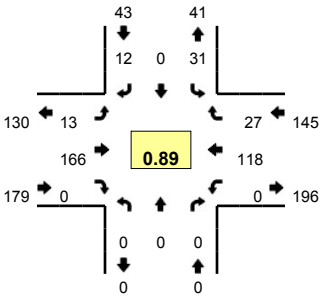
CITY/STATE: Milwaukie, OR

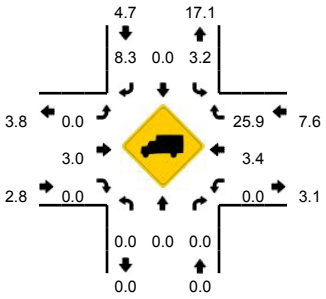
QC JOB #: 14248118

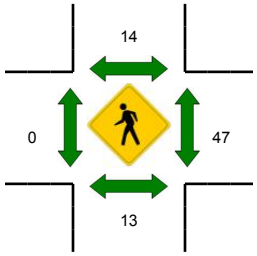
DATE: Tue, Apr 04 2017

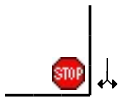
Peak-Hour: 4:00 PM -- 5:00 PM

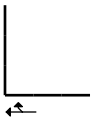
Peak 15-Min: 4:25 PM -- 4:40 PM

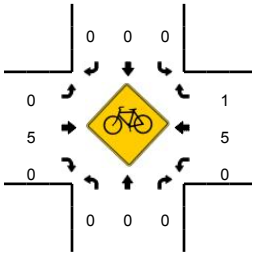


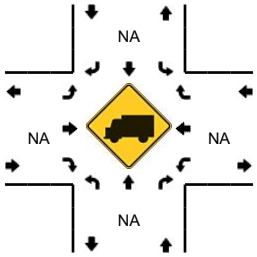


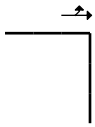


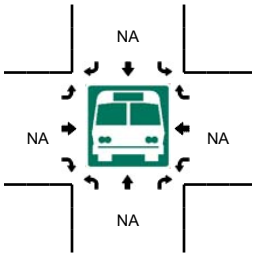












5-Min Count Period Beginning At	SE 27th Ave (Northbound)				SE 27th Ave (Southbound)				SE Lake Rd (Eastbound)				SE Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	6	0	1	0	2	15	0	0	0	8	0	0	32	
4:05 PM	0	0	0	0	4	0	3	0	2	13	0	0	0	7	2	0	31	
4:10 PM	0	0	0	0	2	0	2	0	1	12	0	0	0	7	2	0	26	
4:15 PM	0	0	0	0	1	0	3	0	2	12	0	0	0	12	1	0	31	
4:20 PM	0	0	0	0	0	0	1	0	2	18	0	0	0	10	4	0	35	
4:25 PM	0	0	0	0	1	0	1	0	0	11	0	0	0	15	6	0	34	
4:30 PM	0	0	0	0	2	0	0	0	1	8	0	0	0	15	0	0	26	
4:35 PM	0	0	0	0	2	0	1	1	1	18	0	0	0	16	4	0	43	
4:40 PM	0	0	0	0	1	0	0	0	1	17	0	0	0	7	3	0	29	
4:45 PM	0	0	0	0	5	0	0	0	0	17	0	0	0	3	4	0	29	
4:50 PM	0	0	0	0	2	0	0	0	0	15	0	0	0	11	0	0	28	
4:55 PM	0	0	0	0	4	0	0	0	1	10	0	0	0	7	1	0	23	367
5:00 PM	0	0	0	0	3	0	0	0	1	14	0	0	0	8	0	0	26	361
5:05 PM	0	0	0	0	1	0	0	0	1	18	0	0	0	9	0	0	29	359
5:10 PM	0	0	0	0	2	0	0	0	4	17	0	0	0	6	5	0	34	367
5:15 PM	0	0	0	0	1	0	0	0	1	9	0	0	0	9	2	0	22	358
5:20 PM	0	0	0	0	7	0	4	0	0	15	0	0	0	9	5	0	40	363
5:25 PM	0	0	0	0	5	0	0	0	0	10	0	0	0	10	3	0	28	357
5:30 PM	0	0	0	0	1	0	2	0	2	12	0	0	0	7	3	0	27	358
5:35 PM	0	0	0	0	9	0	0	0	2	21	0	0	0	7	4	0	43	358
5:40 PM	0	0	0	0	4	0	0	0	2	15	0	0	0	7	4	0	32	361
5:45 PM	0	0	0	0	2	0	0	0	1	10	0	0	0	8	2	0	23	355
5:50 PM	0	0	0	0	2	0	1	0	2	11	0	0	0	11	0	0	27	354
5:55 PM	0	0	0	0	2	0	0	0	2	9	0	0	0	12	0	0	25	356

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	20	0	8	4	8	148	0	0	0	184	40	0	412
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	12	8		20
Pedestrians		24				4				0				160			188
Bicycles	0	0	0		0	0	0		0	1	0		0	3	1		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 27th Ave -- SE Lake Rd

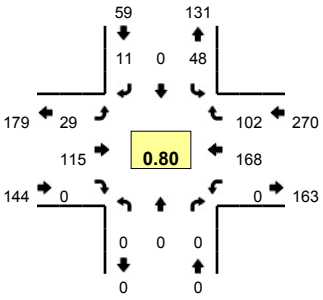
CITY/STATE: Milwaukie, OR

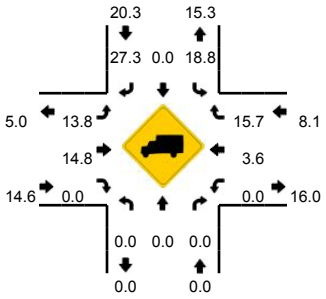
QC JOB #: 14248117

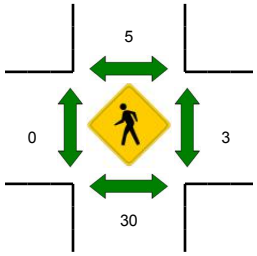
DATE: Tue, Apr 04 2017

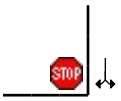
Peak-Hour: 7:35 AM -- 8:35 AM

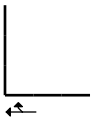
Peak 15-Min: 8:20 AM -- 8:35 AM

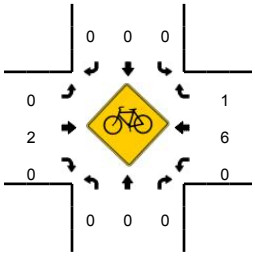


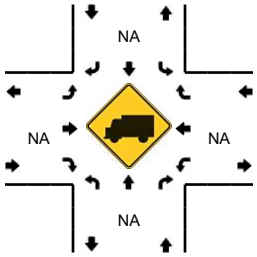


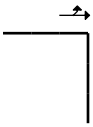


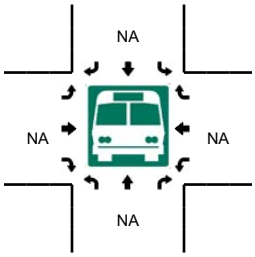












5-Min Count Period Beginning At	SE 27th Ave (Northbound)				SE 27th Ave (Southbound)				SE Lake Rd (Eastbound)				SE Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	2	0	1	0	0	4	0	0	0	10	1	0	18	
7:05 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	15	2	0	21	
7:10 AM	0	0	0	0	0	0	1	0	2	6	0	0	0	11	4	0	24	
7:15 AM	0	0	0	0	4	0	0	0	2	4	0	0	0	5	3	0	18	
7:20 AM	0	0	0	0	0	0	0	0	2	4	0	0	0	10	6	0	22	
7:25 AM	0	0	0	0	0	0	1	0	3	6	0	0	0	15	14	0	39	
7:30 AM	0	0	0	0	1	0	1	0	1	5	0	0	0	8	6	0	22	
7:35 AM	0	0	0	0	6	0	0	0	0	7	0	0	0	12	12	0	37	
7:40 AM	0	0	0	0	7	0	0	0	2	5	0	0	0	11	10	0	35	
7:45 AM	0	0	0	0	4	0	0	0	3	6	0	0	0	7	13	0	33	
7:50 AM	0	0	0	0	6	0	0	0	4	9	0	0	0	11	16	0	46	
7:55 AM	0	0	0	0	5	0	2	0	2	8	0	0	0	13	8	0	38	353
8:00 AM	0	0	0	0	5	0	1	0	0	1	0	0	0	11	5	0	23	358
8:05 AM	0	0	0	0	4	0	3	0	4	4	0	0	0	14	9	0	38	375
8:10 AM	0	0	0	0	3	0	1	0	2	12	0	0	0	18	3	0	39	390
8:15 AM	0	0	0	0	2	0	2	0	2	12	0	0	0	12	6	0	36	408
8:20 AM	0	0	0	0	0	0	0	0	5	13	0	0	0	19	8	0	45	431
8:25 AM	0	0	0	0	4	0	0	0	4	17	0	0	0	20	8	0	53	445
8:30 AM	0	0	0	0	2	0	2	0	1	21	0	0	0	20	4	0	50	473
8:35 AM	0	0	0	0	2	0	1	0	4	12	0	0	0	12	6	0	37	473
8:40 AM	0	0	0	0	3	0	1	0	1	13	0	0	0	9	3	0	30	468
8:45 AM	0	0	0	0	1	0	0	0	0	5	0	0	0	8	3	0	17	452
8:50 AM	0	0	0	0	1	0	0	0	0	7	0	0	0	14	2	0	24	430
8:55 AM	0	0	0	0	0	0	2	0	1	3	0	0	0	13	0	0	19	411

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	0	8	0	40	204	0	0	0	236	80	0	592
Heavy Trucks	0	0	0		0	0	4		8	36	0		0	12	24		84
Pedestrians		52				0				0				0			52
Bicycles	0	0	0		0	0	0		0	2	0		0	2	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Monroe St

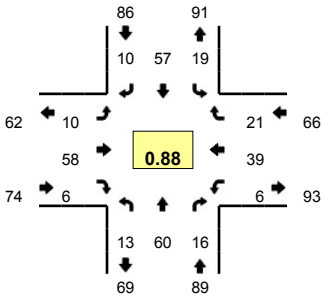
CITY/STATE: Milwaukie, OR

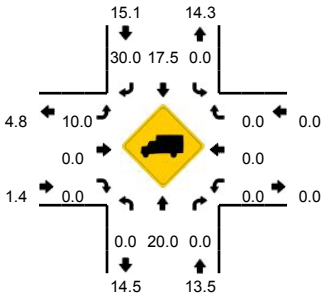
QC JOB #: 14248116

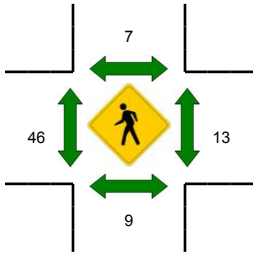
DATE: Tue, Apr 04 2017

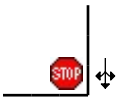
Peak-Hour: 4:45 PM -- 5:45 PM

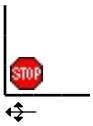
Peak 15-Min: 5:30 PM -- 5:45 PM

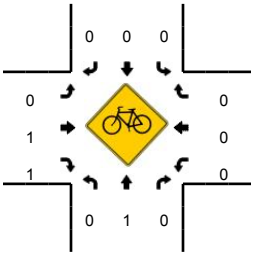


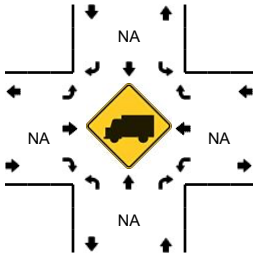


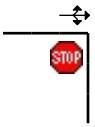


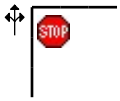


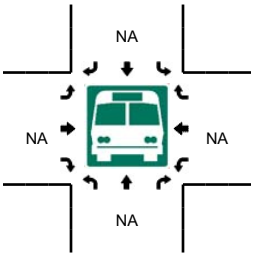












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	4	3	0	1	5	3	0	0	5	2	0	1	1	1	0	26	
4:05 PM	0	4	2	0	1	1	3	0	1	0	1	0	0	5	2	0	20	
4:10 PM	2	3	0	0	5	7	2	0	1	2	1	0	0	5	1	0	29	
4:15 PM	4	5	0	0	0	4	2	0	1	4	0	0	0	3	0	0	23	
4:20 PM	0	10	1	0	2	3	0	0	0	4	2	0	1	5	0	0	28	
4:25 PM	1	5	3	0	0	6	1	0	1	2	0	0	0	5	1	0	25	
4:30 PM	1	2	0	0	1	2	1	0	2	5	1	0	2	5	2	0	24	
4:35 PM	1	4	4	0	1	5	2	0	0	5	0	0	3	4	1	0	30	
4:40 PM	0	3	2	0	1	4	1	0	0	2	1	0	1	6	1	0	22	
4:45 PM	0	7	0	0	3	4	1	0	3	3	1	0	1	3	2	0	28	
4:50 PM	0	4	1	0	1	10	0	0	2	4	1	0	0	2	1	0	26	
4:55 PM	0	4	1	0	0	4	1	0	1	2	0	0	0	4	3	0	20	301
5:00 PM	4	6	0	0	2	2	1	0	0	5	0	0	1	3	1	0	25	300
5:05 PM	0	7	1	0	2	5	1	0	0	8	0	0	0	6	1	0	31	311
5:10 PM	0	6	3	0	1	8	1	0	0	1	0	0	0	3	1	0	24	306
5:15 PM	1	2	1	0	2	5	0	0	1	5	0	0	2	1	0	0	20	303
5:20 PM	1	7	1	0	2	5	0	0	0	3	0	0	0	5	3	0	27	302
5:25 PM	1	3	1	0	1	3	2	0	1	6	1	0	0	2	4	0	25	302
5:30 PM	3	1	3	0	3	4	0	0	0	7	0	0	2	3	2	0	28	306
5:35 PM	1	7	1	0	1	2	2	0	0	11	2	0	0	4	1	0	32	308
5:40 PM	2	6	3	0	1	5	1	0	2	3	1	0	0	3	2	0	29	315
5:45 PM	0	1	2	0	3	2	2	0	0	4	0	0	1	4	0	0	19	306
5:50 PM	2	3	2	0	2	5	0	0	2	8	0	0	0	3	0	0	27	307
5:55 PM	2	3	1	0	0	8	1	0	1	5	1	0	2	0	1	0	25	312

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	56	28	0	20	44	12	0	8	84	12	0	8	40	20	0	356
Heavy Trucks	0	16	0		0	8	4		4	0	0		0	0	0		32
Pedestrians		8				0				60				4			72
Bicycles	0	1	0		0	0	0		0	1	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Monroe St

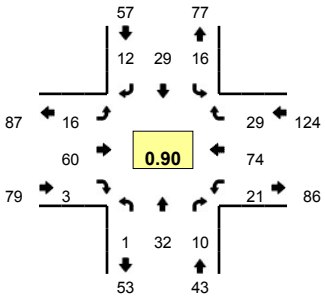
CITY/STATE: Milwaukie, OR

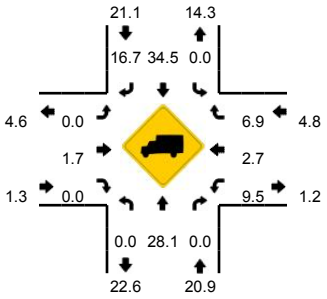
QC JOB #: 14248115

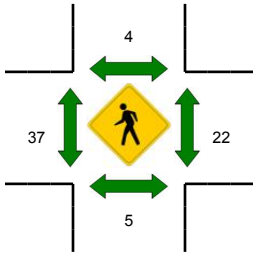
DATE: Tue, Apr 04 2017

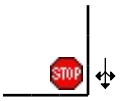
Peak-Hour: 7:40 AM -- 8:40 AM

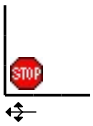
Peak 15-Min: 8:00 AM -- 8:15 AM

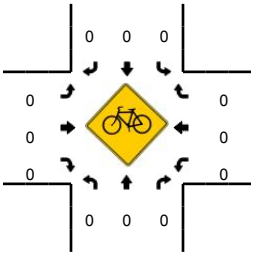


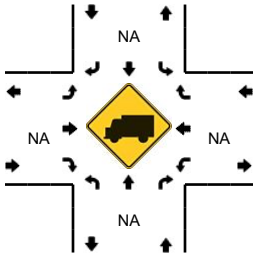


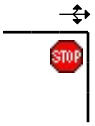


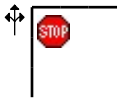


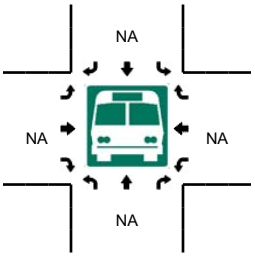












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	0	0	1	3	0	0	0	0	0	0	0	3	0	0	8	
7:05 AM	0	3	1	0	0	2	1	0	0	6	0	0	0	2	0	0	15	
7:10 AM	0	2	0	0	0	3	1	0	0	0	0	1	0	4	1	0	12	
7:15 AM	0	1	0	0	1	0	1	0	0	0	0	0	0	3	0	0	6	
7:20 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	2	0	0	7	
7:25 AM	1	3	0	0	0	3	0	0	0	1	0	0	0	2	1	0	11	
7:30 AM	0	1	0	0	1	0	0	0	0	2	0	0	0	4	1	0	9	
7:35 AM	0	1	2	0	1	3	0	0	3	4	0	0	1	3	0	0	18	
7:40 AM	0	6	2	0	0	4	1	0	0	9	1	0	1	8	1	0	33	
7:45 AM	0	2	0	0	1	2	3	0	1	2	0	0	0	2	1	0	14	
7:50 AM	0	1	1	0	0	2	1	0	2	4	0	0	1	3	1	0	16	
7:55 AM	0	4	0	0	2	5	2	0	1	4	0	0	2	5	1	0	26	175
8:00 AM	0	1	0	0	1	2	0	0	2	10	0	0	0	4	3	0	23	190
8:05 AM	1	5	1	0	1	0	0	0	3	4	0	0	2	9	4	0	30	205
8:10 AM	0	5	1	0	3	2	2	0	2	3	0	0	1	9	3	0	31	224
8:15 AM	0	1	1	0	1	4	0	0	2	5	0	0	1	3	5	0	23	241
8:20 AM	0	0	1	0	4	1	1	0	1	7	0	0	0	9	2	0	26	260
8:25 AM	0	1	1	0	3	4	0	0	1	3	0	0	6	4	3	0	26	275
8:30 AM	0	1	1	0	0	1	1	0	0	4	2	0	4	7	3	0	24	290
8:35 AM	0	5	1	0	0	2	1	0	1	5	0	0	3	11	2	0	31	303
8:40 AM	2	5	0	0	1	5	0	0	0	4	0	0	0	4	0	0	21	291
8:45 AM	0	0	1	0	0	2	0	0	1	7	0	0	0	2	0	0	13	290
8:50 AM	0	2	1	0	0	3	0	0	3	2	0	0	5	3	3	0	22	296
8:55 AM	2	3	1	0	0	2	0	0	0	3	1	0	4	4	0	0	20	290

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	44	8	0	20	16	8	0	28	68	0	0	12	88	40	0	336
Heavy Trucks	0	8	0		0	4	4		0	0	0		0	4	0		20
Pedestrians		4				8				56				8			76
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE Main St -- SE Monroe St

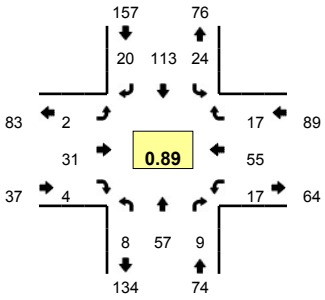
CITY/STATE: Milwaukie, OR

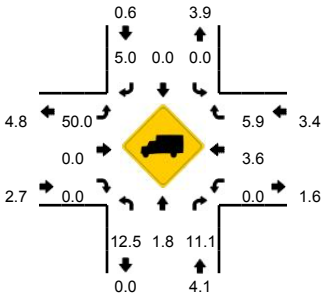
QC JOB #: 14248114

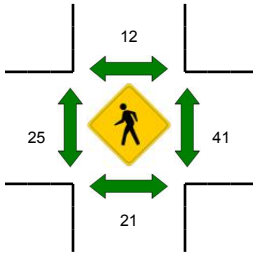
DATE: Tue, Apr 04 2017

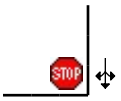
Peak-Hour: 4:10 PM -- 5:10 PM

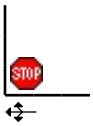
Peak 15-Min: 4:55 PM -- 5:10 PM

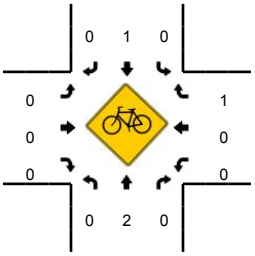


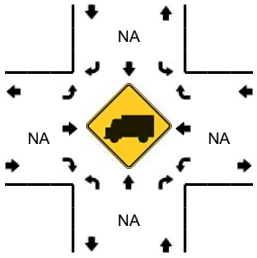


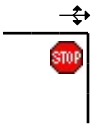


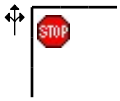


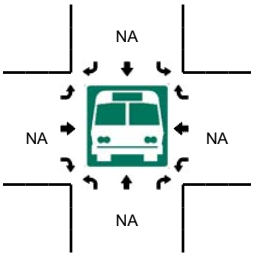












5-Min Count Period Beginning At	SE Main St (Northbound)				SE Main St (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	2	1	0	3	2	1	0	0	2	0	0	2	2	0	0	17	
4:05 PM	1	4	0	0	2	4	4	0	0	0	1	0	1	6	1	0	24	
4:10 PM	0	5	0	0	2	6	1	0	0	2	0	0	2	7	0	0	25	
4:15 PM	1	3	1	0	1	5	0	0	0	4	0	0	3	4	2	0	24	
4:20 PM	0	3	3	0	2	9	3	0	0	1	0	0	1	3	1	0	26	
4:25 PM	0	6	1	0	1	8	1	0	0	2	0	0	1	4	2	0	26	
4:30 PM	0	6	1	0	0	12	1	0	0	5	1	0	1	5	2	0	34	
4:35 PM	1	3	0	0	1	9	3	0	1	4	0	0	0	6	1	0	29	
4:40 PM	0	5	1	0	1	11	2	0	1	2	1	0	3	7	0	0	34	
4:45 PM	1	6	0	0	2	14	2	0	0	4	0	0	1	2	1	0	33	
4:50 PM	2	3	0	0	4	5	3	0	0	3	1	0	1	1	3	0	26	
4:55 PM	1	7	0	0	3	10	0	0	0	0	1	0	1	4	0	0	27	325
5:00 PM	2	6	2	0	2	9	2	0	0	1	0	0	1	8	2	0	35	343
5:05 PM	0	4	0	0	5	15	2	0	0	3	0	0	2	4	3	0	38	357
5:10 PM	0	8	0	0	0	7	0	0	0	0	1	0	0	3	0	0	19	351
5:15 PM	0	4	2	0	1	8	2	0	1	4	0	0	0	5	0	0	27	354
5:20 PM	1	3	0	0	0	3	2	0	0	2	0	0	1	4	0	0	16	344
5:25 PM	1	5	2	0	2	7	2	0	2	3	0	0	2	4	1	0	31	349
5:30 PM	1	3	0	0	3	3	2	0	1	5	1	0	3	3	1	0	26	341
5:35 PM	1	4	0	0	11	12	3	0	0	2	0	0	2	5	0	0	40	352
5:40 PM	0	3	0	0	3	12	2	0	0	2	1	0	2	4	1	0	30	348
5:45 PM	0	5	0	0	1	11	3	0	1	2	1	0	2	3	1	0	30	345
5:50 PM	0	7	2	0	3	5	0	0	0	4	0	0	1	4	2	0	28	347
5:55 PM	1	4	1	0	4	4	2	0	1	2	0	0	0	1	1	0	21	341

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	68	8	0	40	136	16	0	0	16	4	0	16	64	20	0	400
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		20				12				20				24			76
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE Main St -- SE Monroe St

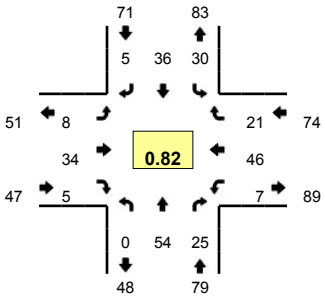
CITY/STATE: Milwaukie, OR

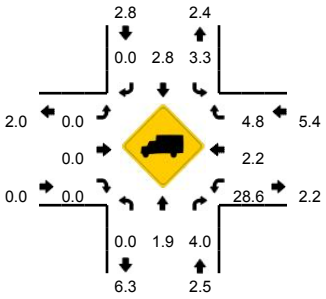
QC JOB #: 14248113

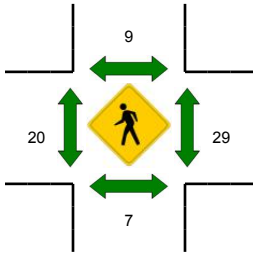
DATE: Tue, Apr 04 2017

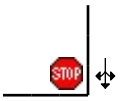
Peak-Hour: 8:00 AM -- 9:00 AM

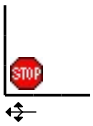
Peak 15-Min: 8:10 AM -- 8:25 AM

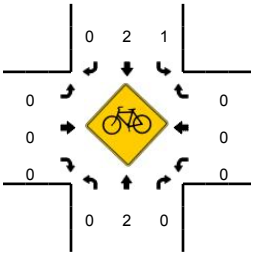


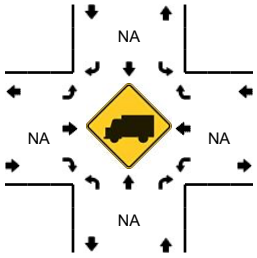


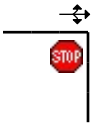


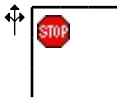


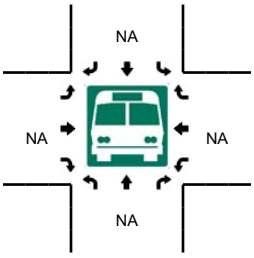












5-Min Count Period Beginning At	SE Main St (Northbound)				SE Main St (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	2	0	0	7	
7:05 AM	0	9	2	0	0	2	0	0	2	4	0	0	0	4	0	0	23	
7:10 AM	0	6	0	0	0	3	0	0	0	1	0	0	0	3	3	0	16	
7:15 AM	0	3	0	0	0	1	0	0	0	0	0	0	1	3	0	0	8	
7:20 AM	0	3	0	0	1	3	0	0	0	3	0	0	0	1	0	0	11	
7:25 AM	0	1	0	0	0	4	0	0	0	1	1	0	0	2	1	0	10	
7:30 AM	0	8	0	0	0	1	0	0	0	4	0	0	1	3	0	0	17	
7:35 AM	0	4	1	0	1	1	0	0	1	4	0	0	0	1	1	0	14	
7:40 AM	0	4	4	0	2	4	0	0	0	5	0	0	2	6	1	0	28	
7:45 AM	0	4	2	0	1	3	0	0	1	1	0	0	1	2	1	0	16	
7:50 AM	1	3	1	0	1	3	0	0	1	3	0	0	0	4	0	0	17	
7:55 AM	1	5	2	0	1	0	0	0	1	5	0	0	0	4	0	0	19	186
8:00 AM	0	6	4	0	4	1	1	0	0	4	0	0	0	4	0	0	24	203
8:05 AM	0	0	1	0	1	2	0	0	1	5	0	0	1	5	2	0	18	198
8:10 AM	0	6	1	0	1	3	0	0	0	3	1	0	1	7	2	0	25	207
8:15 AM	0	6	1	0	7	5	1	0	0	3	0	0	0	1	2	0	26	225
8:20 AM	0	6	3	0	1	3	2	0	3	4	0	0	0	7	3	0	32	246
8:25 AM	0	3	1	0	0	1	0	0	0	2	1	0	0	1	1	0	10	246
8:30 AM	0	5	2	0	3	2	0	0	1	5	1	0	1	4	4	0	28	257
8:35 AM	0	2	4	0	2	2	0	0	0	0	0	0	1	8	3	0	22	265
8:40 AM	0	6	0	0	1	7	1	0	1	3	0	0	2	2	1	0	24	261
8:45 AM	0	4	5	0	5	3	0	0	0	1	0	0	0	1	2	0	21	266
8:50 AM	0	1	2	0	3	4	0	0	2	1	1	0	1	1	1	0	17	266
8:55 AM	0	9	1	0	2	3	0	0	0	3	1	0	0	5	0	0	24	271

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	72	20	0	36	44	12	0	12	40	4	0	4	60	28	0	332
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	4		8
Pedestrians		0				0				16				24			40
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

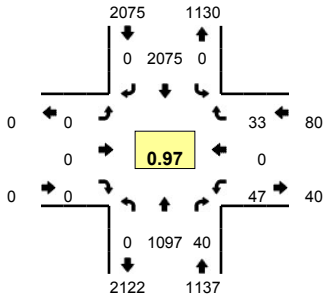
Method for determining peak hour: Total Entering Volume

LOCATION: SE McLoughlin Blvd -- SE Monroe St

QC JOB #: 14248112

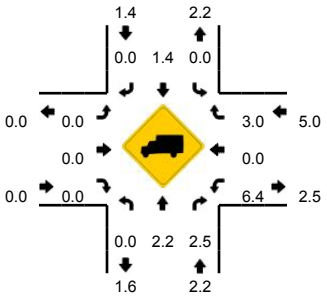
CITY/STATE: Milwaukie, OR

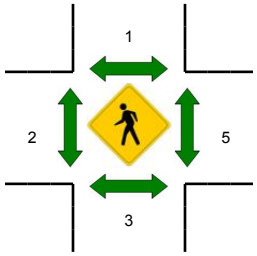
DATE: Tue, Apr 04 2017

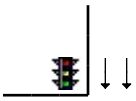


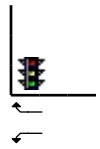
Peak-Hour: 4:30 PM -- 5:30 PM

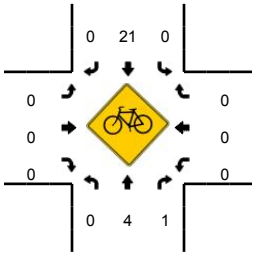
Peak 15-Min: 4:35 PM -- 4:50 PM

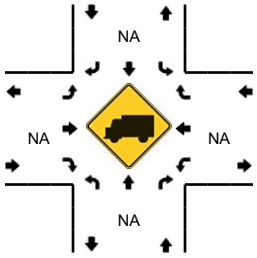


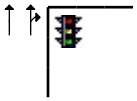


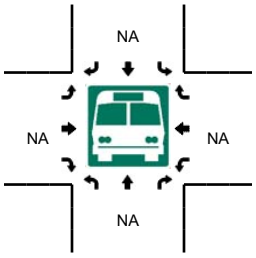












5-Min Count Period Beginning At	SE McLoughlin Blvd (Northbound)				SE McLoughlin Blvd (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	93	2	0	0	164	0	0	0	0	0	0	4	0	2	0	265	
4:05 PM	0	69	1	0	0	175	0	0	0	0	0	0	3	0	1	0	249	
4:10 PM	0	91	2	0	0	162	0	0	0	0	0	0	11	0	3	0	269	
4:15 PM	0	101	4	0	0	200	0	0	0	0	0	0	4	0	1	0	310	
4:20 PM	0	81	1	0	0	153	0	0	0	0	0	0	1	0	4	0	240	
4:25 PM	0	76	1	0	0	177	0	0	0	0	0	0	3	0	2	0	259	
4:30 PM	0	83	6	0	0	172	0	0	0	0	0	0	5	0	3	0	269	
4:35 PM	0	95	5	0	0	180	0	0	0	0	0	0	1	0	3	0	284	
4:40 PM	0	94	4	0	0	155	0	0	0	0	0	0	10	0	2	0	265	
4:45 PM	0	94	4	0	0	196	0	0	0	0	0	0	2	0	2	0	298	
4:50 PM	0	88	4	0	0	157	0	0	0	0	0	0	7	0	0	0	256	
4:55 PM	0	76	0	0	0	195	0	0	0	0	0	0	1	0	4	0	276	3240
5:00 PM	0	99	1	0	0	185	0	0	0	0	0	0	2	0	7	0	294	3269
5:05 PM	0	77	3	0	0	175	0	0	0	0	0	0	3	0	3	0	261	3281
5:10 PM	0	84	1	0	0	151	0	0	0	0	0	0	4	0	2	0	242	3254
5:15 PM	0	109	5	0	0	184	0	0	0	0	0	0	2	0	4	0	304	3248
5:20 PM	0	85	2	0	0	162	0	0	0	0	0	0	6	0	1	0	256	3264
5:25 PM	0	113	5	0	0	163	0	0	0	0	0	0	4	0	2	0	287	3292
5:30 PM	0	87	7	0	0	150	0	0	0	0	0	0	2	0	4	0	250	3273
5:35 PM	0	80	2	0	0	143	0	0	0	0	0	0	5	0	1	0	231	3220
5:40 PM	0	95	3	0	0	164	0	0	0	0	0	0	9	0	3	0	274	3229
5:45 PM	0	102	4	0	0	160	0	0	0	0	0	0	3	0	1	0	270	3201
5:50 PM	0	84	5	0	0	125	0	0	0	0	0	0	4	0	4	0	222	3167
5:55 PM	0	93	2	0	0	170	0	0	0	0	0	0	1	0	0	0	266	3157

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1132	52	0	0	2124	0	0	0	0	0	0	52	0	28	0	3388
Heavy Trucks	0	44	4		0	24	0		0	0	0		0	0	0		72
Pedestrians		4				0				0				4			8
Bicycles	0	0	1		0	7	0		0	0	0		0	0	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

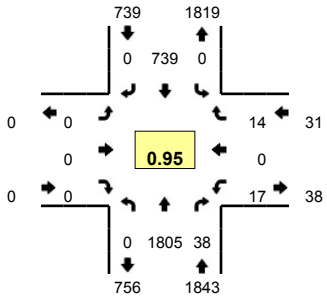
LOCATION: SE McLoughlin Blvd -- SE Monroe St

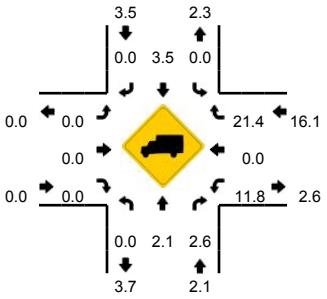
CITY/STATE: Milwaukie, OR

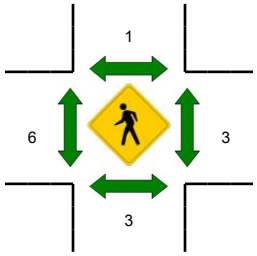
QC JOB #: 14248111

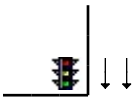
DATE: Tue, Apr 04 2017

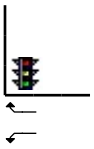
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:15 AM -- 7:30 AM

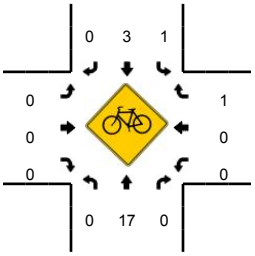


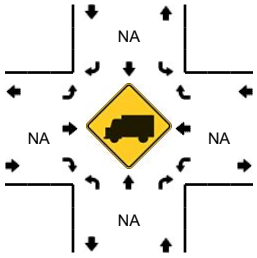


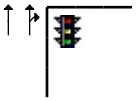


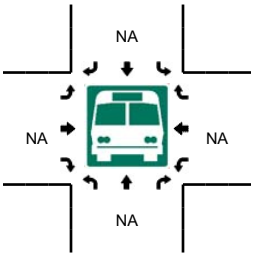












5-Min Count Period Beginning At	SE McLoughlin Blvd (Northbound)				SE McLoughlin Blvd (Southbound)				SE Monroe St (Eastbound)				SE Monroe St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	158	3	0	0	27	0	0	0	0	0	0	1	0	1	0	190	
7:05 AM	0	155	3	0	0	67	0	0	0	0	0	0	1	0	2	0	228	
7:10 AM	0	144	1	0	0	40	0	0	0	0	0	0	2	0	1	0	188	
7:15 AM	0	187	0	0	0	59	0	0	0	0	0	0	2	0	1	0	249	
7:20 AM	0	161	3	0	0	62	0	0	0	0	0	0	1	0	1	0	228	
7:25 AM	0	142	2	0	0	64	0	0	0	0	0	0	2	0	0	0	210	
7:30 AM	0	180	5	0	0	51	0	0	0	0	0	0	1	0	2	0	239	
7:35 AM	0	144	4	0	0	65	0	0	0	0	0	0	0	0	0	0	213	
7:40 AM	0	152	5	0	0	61	0	0	0	0	0	0	3	0	2	0	223	
7:45 AM	0	129	2	0	0	84	0	0	0	0	0	0	1	0	1	0	217	
7:50 AM	0	130	5	0	0	74	0	0	0	0	0	0	2	0	1	0	212	
7:55 AM	0	123	5	0	0	85	0	0	0	0	0	0	1	0	2	0	216	2613
8:00 AM	0	101	4	0	0	46	0	0	0	0	0	0	6	0	0	0	157	2580
8:05 AM	0	131	7	0	0	60	0	0	0	0	0	0	1	0	4	0	203	2555
8:10 AM	0	160	4	0	0	50	0	0	0	0	0	0	7	0	0	0	221	2588
8:15 AM	0	137	3	0	0	71	0	0	0	0	0	0	1	0	0	0	212	2551
8:20 AM	0	145	7	0	0	45	0	0	0	0	0	0	2	0	2	0	201	2524
8:25 AM	0	120	5	0	0	62	0	0	0	0	0	0	0	0	4	0	191	2505
8:30 AM	0	133	6	0	0	63	0	0	0	0	0	0	1	0	3	0	206	2472
8:35 AM	0	92	1	0	0	66	0	0	0	0	0	0	7	0	1	0	167	2426
8:40 AM	0	90	3	0	0	52	0	0	0	0	0	0	3	0	1	0	149	2352
8:45 AM	0	112	1	0	0	65	0	0	0	0	0	0	1	0	0	0	179	2314
8:50 AM	0	116	4	0	0	42	0	0	0	0	0	0	0	0	1	0	163	2265
8:55 AM	0	102	6	0	0	72	0	0	0	0	0	0	1	0	3	0	184	2233

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1960	20	0	0	740	0	0	0	0	0	0	20	0	8	0	2748
Heavy Trucks	0	40	0		0	36	0		0	0	0		0	0	0		76
Pedestrians		0				0				4				4			8
Bicycles	0	6	0		1	1	0		0	0	0		0	0	0		8
Railroad Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Main / Lake Rd

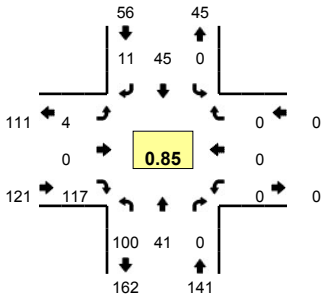
CITY/STATE: Milwaukie, OR

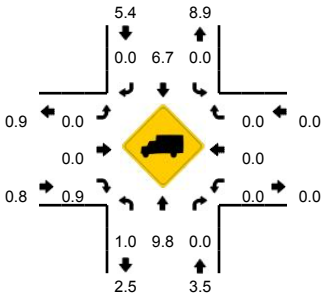
QC JOB #: 14248110

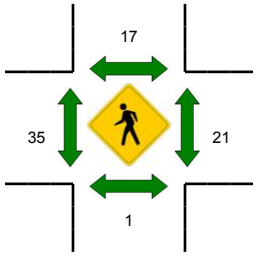
DATE: Tue, Apr 04 2017

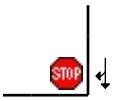
Peak-Hour: 4:15 PM -- 5:15 PM

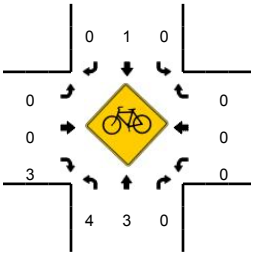
Peak 15-Min: 4:20 PM -- 4:35 PM

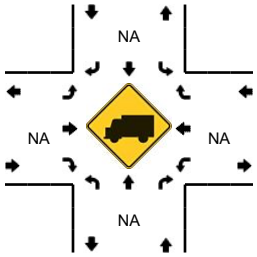


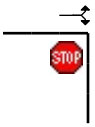


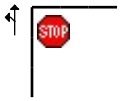


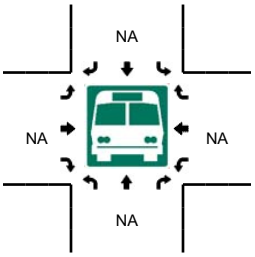












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Main / Lake Rd (Eastbound)				SE Main / Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	3	0	0	0	2	0	0	0	0	14	0	0	0	0	0	23	
4:05 PM	12	1	0	0	0	5	1	0	1	0	11	0	0	0	0	0	31	
4:10 PM	5	4	0	0	0	2	3	0	1	0	6	0	0	0	0	0	21	
4:15 PM	9	1	0	0	0	5	2	0	0	0	11	0	0	0	0	0	28	
4:20 PM	9	6	0	0	0	4	1	0	2	0	14	0	0	0	0	0	36	
4:25 PM	10	4	0	0	0	3	0	0	0	0	8	0	0	0	0	0	25	
4:30 PM	17	5	0	0	0	0	2	0	0	0	9	0	0	0	0	0	33	
4:35 PM	9	4	0	0	0	7	1	0	1	0	5	0	0	0	0	0	27	
4:40 PM	8	2	0	0	0	3	0	0	0	0	9	0	0	0	0	0	22	
4:45 PM	3	2	0	0	0	3	1	0	0	0	12	0	0	0	0	0	21	
4:50 PM	9	4	0	0	0	2	3	0	0	0	11	0	0	0	0	0	29	
4:55 PM	2	4	0	0	0	2	0	0	0	0	8	0	0	0	0	0	16	312
5:00 PM	10	2	0	0	0	6	0	0	0	0	7	0	0	0	0	0	25	314
5:05 PM	6	4	0	0	0	6	0	0	1	0	10	0	0	0	0	0	27	310
5:10 PM	8	3	0	0	0	4	1	0	0	0	13	0	0	0	0	0	29	318
5:15 PM	7	2	0	0	0	2	2	0	1	0	8	0	0	0	0	0	22	312
5:20 PM	7	2	0	0	0	6	1	0	1	0	9	0	0	0	0	0	26	302
5:25 PM	7	3	0	0	0	1	0	0	0	0	7	0	0	0	0	0	18	295
5:30 PM	3	4	0	0	0	2	0	0	1	0	9	0	0	0	0	0	19	281
5:35 PM	2	3	0	0	0	8	1	0	2	0	12	0	0	0	0	0	28	282
5:40 PM	3	3	0	0	0	3	2	0	2	0	10	0	0	0	0	0	23	283
5:45 PM	6	2	0	0	0	2	0	0	1	0	10	0	0	0	0	0	21	283
5:50 PM	5	5	0	0	0	3	1	0	0	0	12	0	0	0	0	0	26	280
5:55 PM	7	2	0	0	0	3	0	0	0	0	6	0	0	0	0	0	18	282

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	144	60	0	0	0	28	12	0	8	0	124	0	0	0	0	0	376
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Pedestrians		4				16				32				24			76
Bicycles	1	1	0		0	0	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Main / Lake Rd

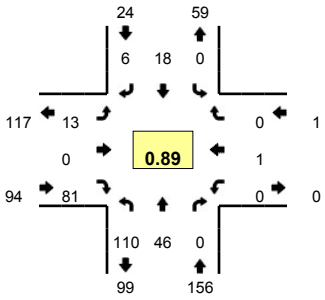
CITY/STATE: Milwaukie, OR

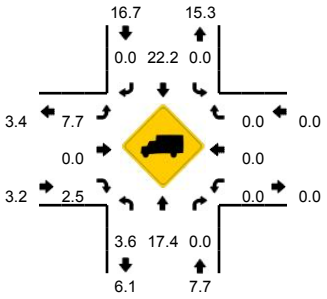
QC JOB #: 14248109

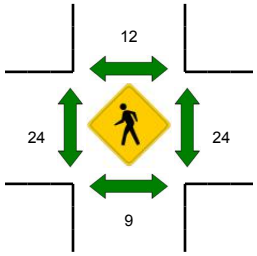
DATE: Tue, Apr 04 2017

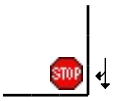
Peak-Hour: 7:45 AM -- 8:45 AM

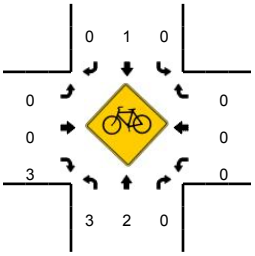
Peak 15-Min: 7:55 AM -- 8:10 AM

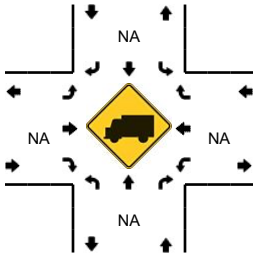


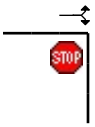


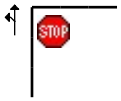


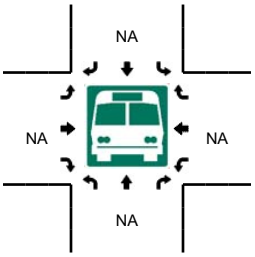












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Main / Lake Rd (Eastbound)				SE Main / Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	2	0	0	0	1	1	0	0	0	3	0	0	0	0	0	13	
7:05 AM	10	4	0	0	0	0	0	0	0	0	4	0	0	0	0	0	18	
7:10 AM	13	2	0	0	0	2	2	0	0	0	5	0	0	0	0	0	24	
7:15 AM	2	3	0	0	0	4	0	0	0	0	4	0	0	0	0	0	13	
7:20 AM	7	2	0	0	0	2	2	0	0	0	3	0	0	0	0	0	16	
7:25 AM	2	7	0	0	0	2	0	0	2	0	13	0	0	0	0	0	26	
7:30 AM	8	3	0	0	0	2	0	0	0	0	3	0	0	0	0	0	16	
7:35 AM	6	3	0	0	0	2	0	0	2	0	6	0	0	0	0	0	19	
7:40 AM	10	4	0	0	0	0	0	0	1	0	7	0	0	0	0	0	22	
7:45 AM	9	2	0	0	0	1	0	0	1	0	8	0	0	0	0	0	21	
7:50 AM	7	2	0	0	0	0	0	0	1	0	9	0	0	0	0	0	19	
7:55 AM	13	2	0	0	0	4	2	0	2	0	5	0	0	0	0	0	28	235
8:00 AM	15	3	0	0	0	0	1	0	1	0	4	0	0	0	0	0	24	246
8:05 AM	6	5	0	0	0	2	0	0	2	0	10	0	0	0	0	0	25	253
8:10 AM	10	6	0	0	0	3	0	0	0	0	5	0	0	0	0	0	24	253
8:15 AM	9	2	0	0	0	2	1	0	2	0	8	0	0	0	0	0	24	264
8:20 AM	12	5	0	0	0	1	0	0	1	0	7	0	0	0	0	0	26	274
8:25 AM	9	3	0	0	0	2	0	0	1	0	5	0	0	0	0	0	20	268
8:30 AM	6	8	0	0	0	2	0	0	0	0	4	0	0	1	0	0	21	273
8:35 AM	0	1	0	0	0	1	0	0	0	0	10	0	0	0	0	0	12	266
8:40 AM	14	7	0	0	0	0	2	0	2	0	6	0	0	0	0	0	31	275
8:45 AM	7	0	0	0	0	2	1	0	0	0	5	0	0	0	0	0	15	269
8:50 AM	9	6	0	0	0	3	1	0	0	0	4	0	0	0	0	0	23	273
8:55 AM	9	3	0	0	0	2	0	0	1	0	5	0	0	0	0	0	20	265

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	136	40	0	0	0	24	12	0	20	0	76	0	0	0	0	0	308
Heavy Trucks	4	0	0		0	8	0		0	0	0		0	0	0		12
Pedestrians		4				20				20				40			84
Bicycles	1	0	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 27th Ave -- SE Washington St

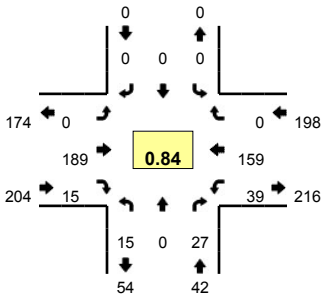
CITY/STATE: Milwaukie, OR

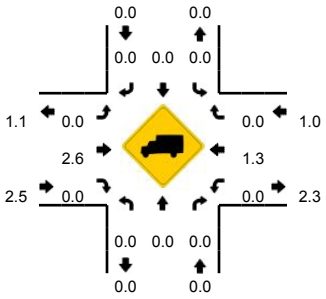
QC JOB #: 14248108

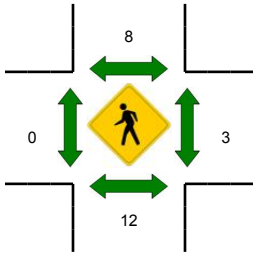
DATE: Tue, Apr 04 2017

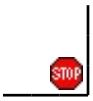
Peak-Hour: 4:55 PM -- 5:55 PM

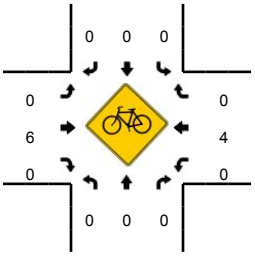
Peak 15-Min: 5:35 PM -- 5:50 PM

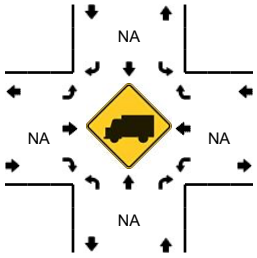


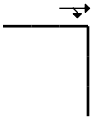


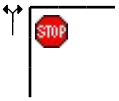


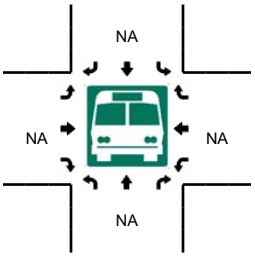












5-Min Count Period Beginning At	SE 27th Ave (Northbound)				SE 27th Ave (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	2	0	0	0	0	0	0	4	3	0	2	6	0	1	18	
4:05 PM	0	0	5	0	0	0	0	0	0	9	1	0	6	10	0	0	31	
4:10 PM	0	0	2	0	0	0	0	0	0	11	1	0	1	9	0	0	24	
4:15 PM	1	0	1	0	0	0	0	0	0	9	1	0	3	16	0	0	31	
4:20 PM	0	0	4	0	0	0	0	0	0	14	0	0	1	11	0	0	30	
4:25 PM	0	0	3	0	0	0	0	0	0	10	0	0	2	15	0	0	30	
4:30 PM	3	0	4	0	0	0	0	0	0	9	3	0	3	11	0	0	33	
4:35 PM	1	0	2	0	0	0	0	0	0	6	1	0	6	8	0	0	24	
4:40 PM	2	0	5	0	0	0	0	0	0	9	1	0	1	14	0	0	32	
4:45 PM	0	0	1	0	0	0	0	0	0	15	1	0	4	14	0	0	35	
4:50 PM	0	0	0	0	0	0	0	0	0	12	0	0	2	6	0	0	20	
4:55 PM	0	0	3	0	0	0	0	0	0	13	1	0	6	16	0	0	39	347
5:00 PM	2	0	3	0	0	0	0	0	0	19	2	0	2	9	0	0	37	366
5:05 PM	0	0	1	0	0	0	0	0	0	9	0	0	3	11	0	0	24	359
5:10 PM	2	0	4	0	0	0	0	0	0	17	0	0	1	9	0	0	33	368
5:15 PM	0	0	3	0	0	0	0	0	0	12	0	0	6	18	0	0	39	376
5:20 PM	2	0	0	0	0	0	0	0	0	14	3	0	5	15	0	0	39	385
5:25 PM	1	0	0	0	0	0	0	0	0	10	1	0	5	19	0	0	36	391
5:30 PM	0	0	1	0	0	0	0	0	0	21	1	0	1	11	0	0	35	393
5:35 PM	1	0	3	0	0	0	0	0	0	24	2	0	5	14	0	0	49	418
5:40 PM	7	0	4	0	0	0	0	0	0	24	2	0	1	8	0	0	46	432
5:45 PM	0	0	2	0	0	0	0	0	0	10	2	0	1	22	0	0	37	434
5:50 PM	0	0	3	0	0	0	0	0	0	16	1	0	3	7	0	0	30	444
5:55 PM	1	0	1	0	0	0	0	0	0	13	0	0	3	9	0	0	27	432

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	0	36	0	0	0	0	0	0	232	24	0	28	176	0	0	528
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	0	0		12
Pedestrians		20				8				0				0			28
Bicycles	0	0	0		0	0	0		0	2	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 27th Ave -- SE Washington St

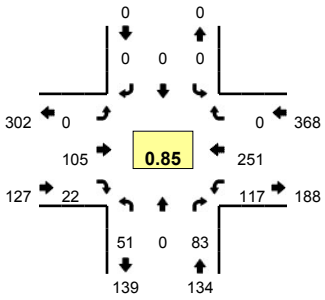
CITY/STATE: Milwaukie, OR

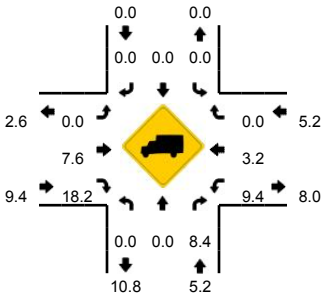
QC JOB #: 14248107

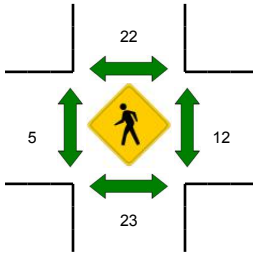
DATE: Tue, Apr 04 2017

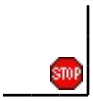
Peak-Hour: 7:35 AM -- 8:35 AM

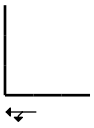
Peak 15-Min: 7:55 AM -- 8:10 AM

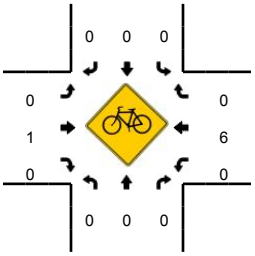


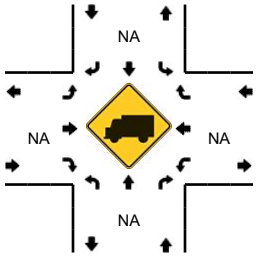


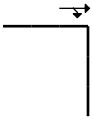


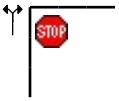


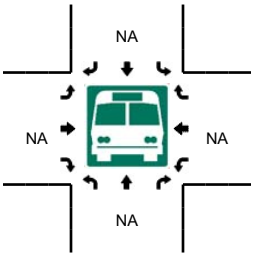












5-Min Count Period Beginning At	SE 27th Ave (Northbound)				SE 27th Ave (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	3	1	0	1	4	0	0	9	
7:05 AM	0	0	1	0	0	0	0	0	0	2	1	0	2	4	0	0	10	
7:10 AM	2	0	4	0	0	0	0	0	0	4	1	0	9	7	0	0	27	
7:15 AM	0	0	1	0	0	0	0	0	0	1	1	0	4	5	0	0	12	
7:20 AM	3	0	2	0	0	0	0	0	0	6	1	0	4	9	0	0	25	
7:25 AM	3	0	2	0	0	0	0	0	0	5	3	0	6	10	0	0	29	
7:30 AM	3	0	6	0	0	0	0	0	0	1	2	0	10	9	0	0	31	
7:35 AM	2	0	7	0	0	0	0	0	0	4	3	0	12	13	0	0	41	
7:40 AM	4	0	15	0	0	0	0	0	0	7	2	0	7	12	0	0	47	
7:45 AM	3	0	5	0	0	0	0	0	0	0	1	0	13	8	0	0	30	
7:50 AM	4	0	7	0	0	0	0	0	0	8	2	0	8	26	0	0	55	
7:55 AM	10	0	20	0	0	0	0	0	0	5	3	0	11	27	0	0	76	392
8:00 AM	7	0	1	0	0	0	0	0	0	4	1	0	13	19	0	0	45	428
8:05 AM	5	0	8	0	0	0	0	0	0	9	5	0	5	32	0	0	64	482
8:10 AM	4	0	5	0	0	0	0	0	0	15	2	0	9	19	0	0	54	509
8:15 AM	4	0	6	0	0	0	0	0	0	10	1	0	11	25	0	0	57	554
8:20 AM	1	0	4	0	0	0	0	0	0	11	1	0	10	20	0	0	47	576
8:25 AM	3	0	4	0	0	0	0	0	0	14	0	0	10	40	0	0	71	618
8:30 AM	4	0	1	0	0	0	0	0	0	18	1	0	8	10	0	0	42	629
8:35 AM	2	0	4	0	0	0	0	0	0	10	1	0	8	5	0	0	30	618
8:40 AM	1	0	5	0	0	0	0	0	0	5	0	0	1	6	0	0	18	589
8:45 AM	1	0	3	0	0	0	0	0	0	8	0	0	4	8	0	0	24	583
8:50 AM	2	0	2	0	0	0	0	0	0	10	1	0	1	5	0	0	21	549
8:55 AM	0	0	5	0	0	0	0	0	0	5	0	0	3	8	0	0	21	494

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	88	0	116	0	0	0	0	0	0	72	36	0	116	312	0	0	740
Heavy Trucks	0	0	4		0	0	0		0	0	4		8	4	0		20
Pedestrians		36				4				4				4			48
Bicycles	0	0	0		0	0	0		0	0	0		0	2	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

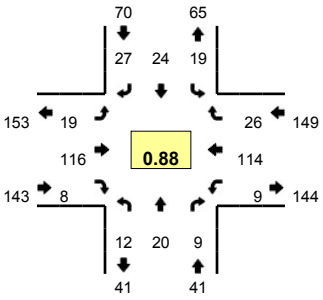
LOCATION: SE 21st Ave -- SE Washington St

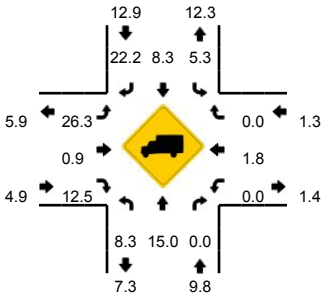
QC JOB #: 14248106

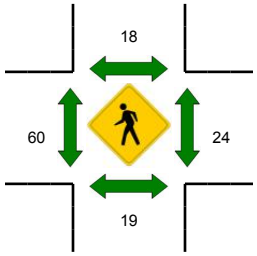
CITY/STATE: Milwaukie, OR

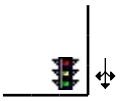
DATE: Tue, Apr 04 2017

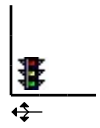
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

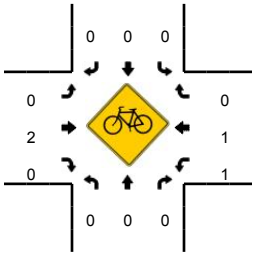


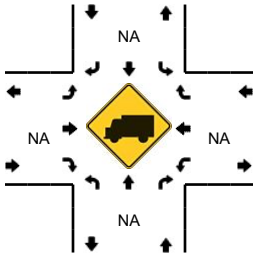


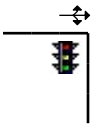


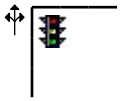


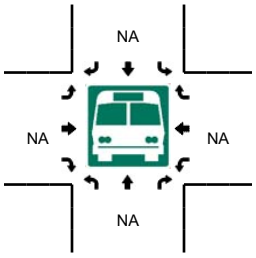












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	1	0	0	1	0	2	0	1	0	0	0	0	0	0	0	6	
4:05 PM	3	2	2	0	1	4	0	0	0	6	0	0	0	6	1	0	25	
4:10 PM	1	5	0	0	0	3	3	0	1	8	1	0	3	9	1	0	35	
4:15 PM	0	1	0	0	2	2	1	0	2	10	0	0	0	8	2	0	28	
4:20 PM	1	3	1	0	0	2	4	0	3	7	1	0	0	16	3	0	41	
4:25 PM	0	2	0	0	0	3	1	0	0	9	1	0	2	10	2	0	30	
4:30 PM	1	2	0	0	1	0	1	0	0	3	0	0	0	9	1	0	18	
4:35 PM	2	4	1	0	0	3	4	0	0	3	1	0	0	6	1	0	25	
4:40 PM	1	0	0	0	1	2	3	0	2	11	2	0	0	10	6	0	38	
4:45 PM	1	3	0	0	4	3	3	0	0	8	0	0	0	15	0	0	37	
4:50 PM	3	1	1	0	2	3	2	0	3	10	0	0	1	9	0	0	35	
4:55 PM	2	3	0	0	1	2	0	0	2	8	1	0	0	7	3	0	29	347
5:00 PM	0	3	1	0	0	2	3	0	3	12	1	0	2	12	0	0	39	380
5:05 PM	0	1	1	0	2	3	1	0	1	8	1	0	1	7	5	0	31	386
5:10 PM	2	0	3	0	3	2	4	0	1	9	0	0	1	14	2	0	41	392
5:15 PM	0	0	0	0	1	0	1	0	0	5	0	0	0	5	1	0	13	377
5:20 PM	1	3	1	0	1	3	3	0	5	19	1	0	1	19	3	0	60	396
5:25 PM	1	2	1	0	2	0	3	0	0	2	0	0	0	4	0	0	15	381
5:30 PM	0	1	0	0	2	2	3	0	0	15	1	0	1	4	2	0	31	394
5:35 PM	1	3	1	0	0	2	1	0	2	9	1	0	2	8	4	0	34	403
5:40 PM	2	1	1	0	0	3	3	0	4	12	1	0	0	6	2	0	35	400
5:45 PM	0	0	1	0	0	0	2	0	1	6	0	0	1	7	0	0	18	381
5:50 PM	0	3	3	0	3	4	3	0	2	7	0	0	0	4	2	0	31	377
5:55 PM	0	3	0	0	0	3	3	0	0	6	0	0	1	7	0	0	23	371

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	12	16	0	20	20	32	0	24	132	4	0	8	152	24	0	456
Heavy Trucks	0	0	0		0	4	12		8	0	0		0	0	0		24
Pedestrians		8				24				44				44			120
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 21st Ave -- SE Washington St

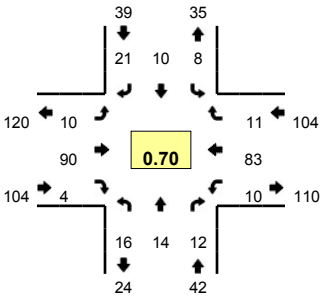
CITY/STATE: Milwaukie, OR

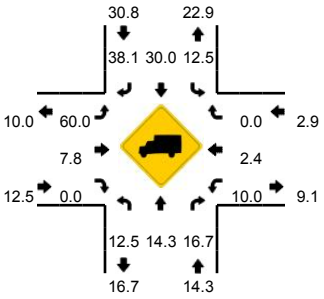
QC JOB #: 14248105

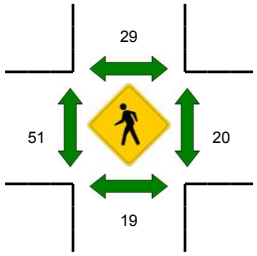
DATE: Tue, Apr 04 2017

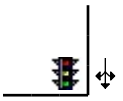
Peak-Hour: 7:40 AM -- 8:40 AM

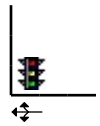
Peak 15-Min: 8:05 AM -- 8:20 AM

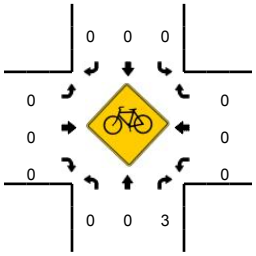


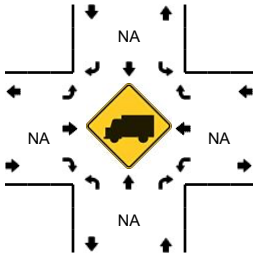


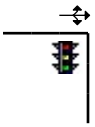


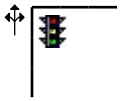


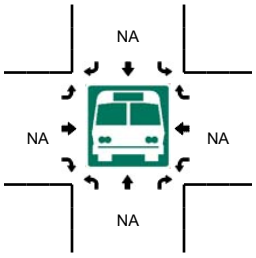












5-Min Count Period Beginning At	SE 21st Ave (Northbound)				SE 21st Ave (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	1	0	0	3	0	0	0	1	0	0	5	
7:05 AM	1	2	0	0	0	1	1	0	1	4	0	0	0	4	1	0	15	
7:10 AM	0	0	0	0	0	2	3	0	1	6	1	0	1	5	0	0	19	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:20 AM	0	1	0	0	1	0	0	0	0	8	1	0	0	6	3	0	20	
7:25 AM	0	2	1	0	2	1	1	0	1	9	0	0	1	6	0	0	24	
7:30 AM	0	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	4	
7:35 AM	0	3	0	0	0	1	2	0	2	8	0	0	0	10	0	0	26	
7:40 AM	1	3	0	0	0	0	3	0	2	8	0	0	1	11	0	0	29	
7:45 AM	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	4	
7:50 AM	2	1	1	0	2	0	2	0	0	16	1	0	0	10	0	0	35	
7:55 AM	1	0	1	0	1	3	2	0	2	7	1	0	2	4	1	0	25	206
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201
8:05 AM	2	3	2	0	1	0	0	0	0	17	0	0	2	10	2	0	39	225
8:10 AM	1	3	3	0	0	2	4	0	3	7	0	0	2	21	3	0	49	255
8:15 AM	1	0	1	0	0	0	0	0	1	5	0	0	2	4	1	0	15	270
8:20 AM	0	1	1	0	1	1	2	0	0	13	0	0	1	3	1	0	24	274
8:25 AM	1	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	5	255
8:30 AM	2	0	1	0	1	1	2	0	1	5	1	0	0	9	1	0	24	275
8:35 AM	5	1	1	0	2	3	3	0	1	11	1	0	0	10	2	0	40	289
8:40 AM	1	3	2	0	0	0	1	0	2	1	0	0	0	2	0	0	12	272
8:45 AM	1	0	1	0	0	0	0	0	1	5	2	0	0	2	0	0	12	280
8:50 AM	3	2	3	0	3	1	0	0	1	7	2	0	0	5	1	0	28	273
8:55 AM	2	3	0	0	1	1	3	0	1	6	1	0	0	4	3	0	25	273

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	24	24	0	4	8	16	0	16	116	0	0	24	140	24	0	412
Heavy Trucks	0	0	8		0	0	4		8	8	0		4	0	0		32
Pedestrians		28				48				40				8			124
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

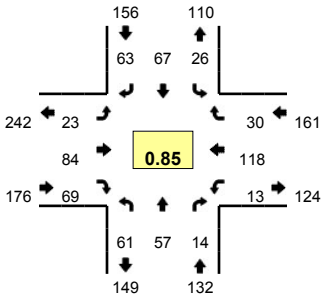
LOCATION: SE Main St -- SE Washington St

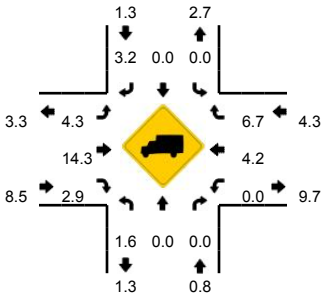
CITY/STATE: Milwaukie, OR

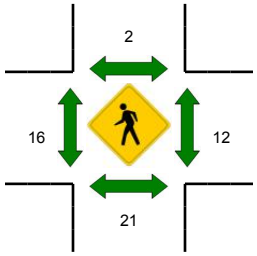
QC JOB #: 14248104

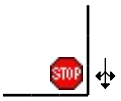
DATE: Tue, Apr 04 2017

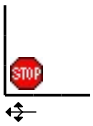
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:10 PM -- 4:25 PM

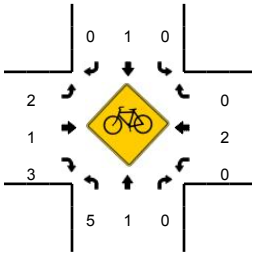


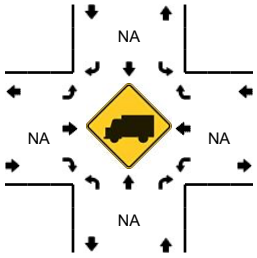


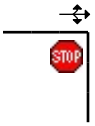


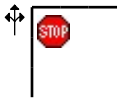


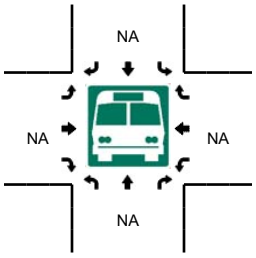












5-Min Count Period Beginning At	SE Main St (Northbound)				SE Main St (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	2	0	0	2	6	2	0	1	4	7	0	2	2	0	0	32	
4:05 PM	9	1	1	0	1	3	1	0	6	2	4	0	3	7	0	0	38	
4:10 PM	6	5	2	0	3	6	6	0	4	6	6	0	1	12	0	0	57	
4:15 PM	5	5	3	0	4	4	1	0	4	7	8	0	0	10	1	0	52	
4:20 PM	6	4	0	0	1	10	5	0	0	12	12	0	3	16	5	0	74	
4:25 PM	8	4	2	0	2	4	4	0	2	5	7	0	1	7	2	0	48	
4:30 PM	8	10	1	0	0	7	6	0	3	2	2	0	1	6	2	0	48	
4:35 PM	4	4	1	0	0	3	4	0	1	3	2	0	3	14	0	0	39	
4:40 PM	7	3	1	0	4	7	6	0	1	7	5	0	1	9	3	0	54	
4:45 PM	2	4	0	0	4	8	5	0	2	6	5	0	0	15	3	0	54	
4:50 PM	2	5	0	0	1	4	7	0	0	10	6	0	0	7	3	0	45	
4:55 PM	2	5	0	0	1	4	7	0	0	10	6	0	0	7	3	0	45	586
5:00 PM	8	5	1	0	4	5	4	0	3	9	5	0	2	8	6	0	60	614
5:05 PM	3	3	3	0	2	5	8	0	3	7	5	0	1	7	2	0	49	625
5:10 PM	4	5	2	0	1	8	2	0	0	4	3	0	3	15	3	0	50	618
5:15 PM	6	5	1	0	3	5	3	0	2	8	4	0	1	6	0	0	44	610
5:20 PM	8	4	3	0	4	5	1	0	1	10	5	0	2	15	3	0	61	597
5:25 PM	1	4	0	0	0	2	2	0	2	2	2	0	0	7	1	0	23	572
5:30 PM	1	0	0	0	2	4	4	0	4	14	7	0	0	6	1	0	43	567
5:35 PM	2	3	2	0	1	6	7	0	2	11	9	0	1	7	1	0	52	580
5:40 PM	5	2	3	0	2	5	5	0	0	11	2	0	1	10	1	0	47	573
5:45 PM	4	2	1	0	1	2	6	0	4	6	9	0	1	4	4	0	44	563
5:50 PM	3	3	1	0	3	4	4	0	2	7	7	0	1	6	1	0	42	560
5:55 PM	3	6	1	0	2	4	0	0	2	3	3	0	1	7	2	0	34	549

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	56	20	0	32	80	48	0	32	100	104	0	16	152	24	0	732
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	4	4		24
Pedestrians		16				4				8				12			40
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

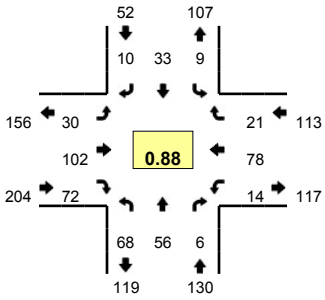
LOCATION: SE Main St -- SE Washington St

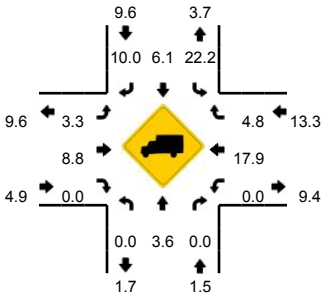
CITY/STATE: Milwaukie, OR

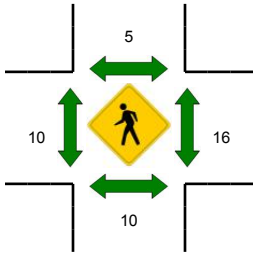
QC JOB #: 14248103

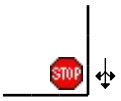
DATE: Tue, Apr 04 2017

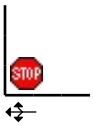
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

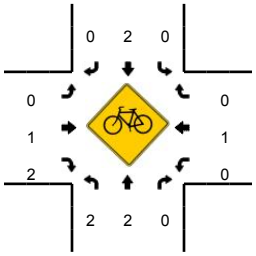


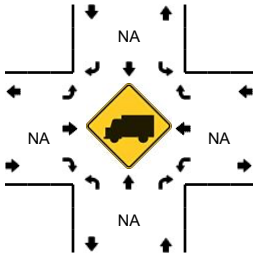


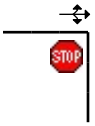


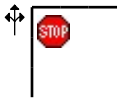


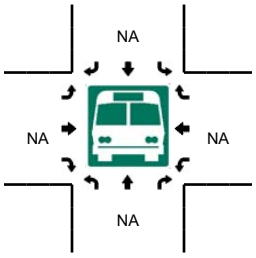












5-Min Count Period Beginning At	SE Main St (Northbound)				SE Main St (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	2	0	0	0	3	0	0	0	4	1	0	0	1	0	0	16	
7:05 AM	4	5	0	0	0	0	1	0	3	3	5	0	0	4	2	0	27	
7:10 AM	7	7	0	0	1	2	0	0	0	5	3	0	0	7	1	0	33	
7:15 AM	1	3	0	0	0	1	1	0	1	7	2	0	0	0	0	0	16	
7:20 AM	5	3	1	0	1	0	1	0	2	7	5	0	1	6	1	0	33	
7:25 AM	2	0	0	0	2	2	0	0	1	7	12	0	1	4	0	0	31	
7:30 AM	5	2	0	0	1	0	1	0	5	7	4	0	0	3	0	0	28	
7:35 AM	3	5	2	0	1	2	0	0	2	8	11	0	3	7	1	0	45	
7:40 AM	5	5	0	0	1	3	0	0	3	3	6	0	1	12	0	0	39	
7:45 AM	4	5	1	0	1	1	0	0	2	5	4	0	3	0	0	0	26	
7:50 AM	5	3	0	0	2	3	1	0	4	10	9	0	2	8	3	0	50	
7:55 AM	6	8	0	0	1	0	0	0	2	16	8	0	0	6	1	0	48	392
8:00 AM	14	4	1	0	0	1	0	0	3	2	5	0	0	0	1	0	31	407
8:05 AM	6	2	0	0	1	3	0	0	2	10	10	0	0	10	1	0	45	425
8:10 AM	3	6	1	0	0	3	1	0	1	9	3	0	2	19	5	0	53	445
8:15 AM	5	6	1	0	1	4	2	0	2	11	6	0	1	4	0	0	43	472
8:20 AM	6	8	0	0	0	2	1	0	1	9	9	0	1	4	0	0	41	480
8:25 AM	6	2	1	0	0	1	1	0	2	4	3	0	1	2	0	0	23	472
8:30 AM	2	6	1	0	0	4	2	0	3	6	5	0	2	8	3	0	42	486
8:35 AM	0	1	0	0	2	5	1	0	4	8	7	0	3	10	4	0	45	486
8:40 AM	9	5	0	0	2	6	1	0	2	5	3	0	1	4	2	0	40	487
8:45 AM	6	5	1	0	0	1	0	0	4	12	4	0	1	3	1	0	38	499
8:50 AM	4	5	2	0	1	4	2	0	0	12	4	0	1	7	0	0	42	491
8:55 AM	5	4	2	0	1	0	3	0	2	5	6	0	0	9	4	0	41	484

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	56	8	0	8	40	12	0	20	120	76	0	12	132	24	0	564
Heavy Trucks	0	4	0		0	0	0		0	12	0		0	8	0		24
Pedestrians		16				8				4				24			52
Bicycles	1	0	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

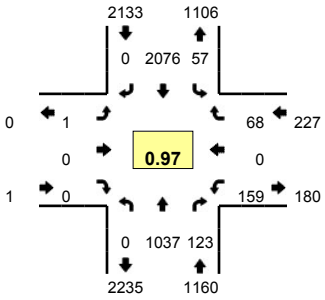
LOCATION: SE McLoughlin Blvd -- SE Washington St

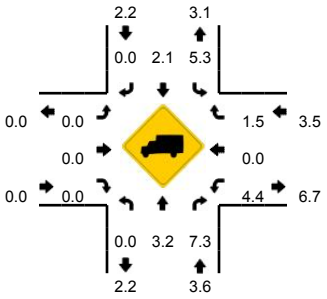
QC JOB #: 14248102

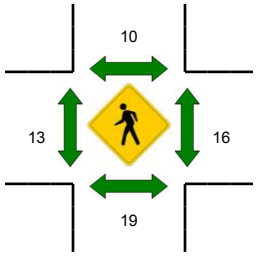
CITY/STATE: Milwaukie, OR

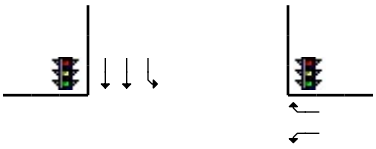
DATE: Tue, Apr 04 2017

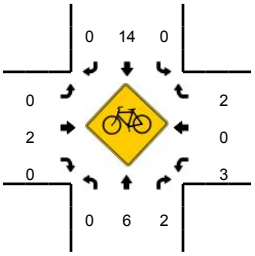
Peak-Hour: 4:10 PM -- 5:10 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

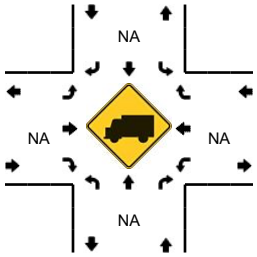


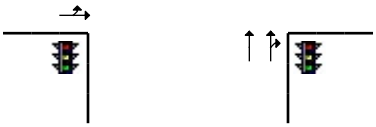


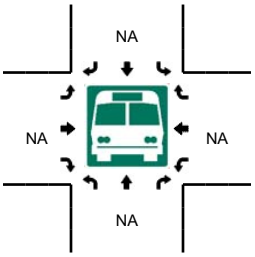












5-Min Count Period Beginning At	SE McLoughlin Blvd (Northbound)				SE McLoughlin Blvd (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	88	7	0	5	160	0	0	0	0	0	0	8	0	5	0	273	
4:05 PM	0	73	6	0	5	170	0	0	0	1	0	0	7	0	4	0	266	
4:10 PM	0	93	11	0	4	157	0	0	0	0	0	0	19	0	4	0	288	
4:15 PM	0	93	16	0	7	204	0	0	0	0	0	0	5	0	8	0	333	
4:20 PM	0	77	17	0	6	144	0	0	0	0	0	0	14	0	10	0	268	
4:25 PM	0	82	9	0	4	181	0	0	0	0	0	0	9	0	4	0	289	
4:30 PM	0	86	4	0	2	161	0	0	0	0	0	0	21	0	3	0	277	
4:35 PM	0	81	6	0	2	181	0	0	0	0	0	0	10	0	6	0	286	
4:40 PM	0	104	13	0	2	161	0	0	0	0	0	0	23	0	3	0	306	
4:45 PM	0	89	10	0	5	197	0	0	0	0	0	0	9	0	7	0	317	
4:50 PM	0	89	9	0	3	154	0	0	1	0	0	0	15	0	6	0	277	
4:55 PM	0	66	7	0	10	184	0	0	0	0	0	0	11	0	3	0	281	3461
5:00 PM	0	95	11	0	7	174	0	0	0	0	0	0	10	0	10	0	307	3495
5:05 PM	0	82	10	0	5	178	0	0	0	0	0	0	13	0	4	0	292	3521
5:10 PM	0	72	4	0	3	139	0	0	0	0	0	0	17	0	9	0	244	3477
5:15 PM	0	105	13	0	6	179	0	0	0	0	0	0	11	0	4	0	318	3462
5:20 PM	0	91	11	0	3	147	0	0	0	0	0	0	21	0	5	0	278	3472
5:25 PM	0	104	5	0	5	174	0	0	0	0	0	0	7	0	4	0	299	3482
5:30 PM	0	102	15	0	8	142	0	0	1	0	0	0	11	0	0	0	279	3484
5:35 PM	0	79	11	0	14	141	0	0	0	0	0	0	10	0	8	0	263	3461
5:40 PM	0	96	10	0	2	143	0	0	1	1	0	0	15	0	4	0	272	3427
5:45 PM	0	95	4	0	12	163	0	0	0	1	0	0	7	0	4	0	286	3396
5:50 PM	0	85	9	0	5	123	0	0	0	1	0	0	13	0	6	0	242	3361
5:55 PM	0	91	1	0	8	168	0	0	0	0	0	0	6	0	6	0	280	3360

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1096	116	0	36	2156	0	0	0	0	0	0	168	0	64	0	3636
Heavy Trucks	0	52	4		0	20	0		0	0	0		8	0	4		88
Pedestrians		20				8				12				8			48
Bicycles	0	1	1		0	5	0		0	1	0		1	0	0		9
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

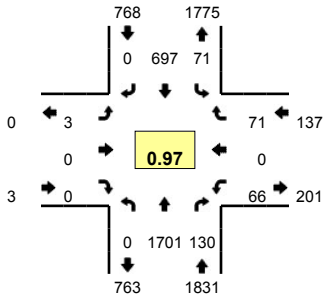
Method for determining peak hour: Total Entering Volume

LOCATION: SE McLoughlin Blvd -- SE Washington St

CITY/STATE: Milwaukie, OR

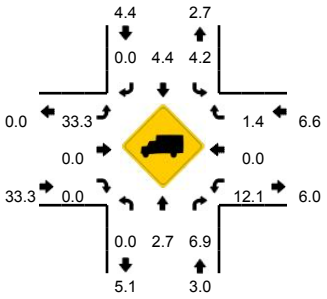
QC JOB #: 14248101

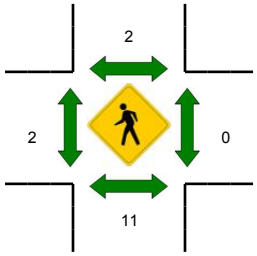
DATE: Tue, Apr 04 2017

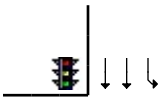


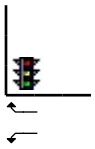
Peak-Hour: 7:15 AM -- 8:15 AM

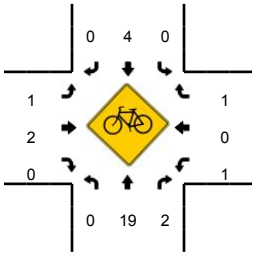
Peak 15-Min: 7:30 AM -- 7:45 AM

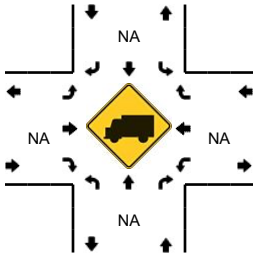


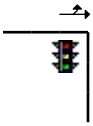


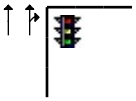


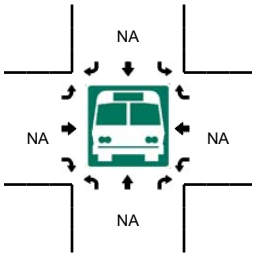












5-Min Count Period Beginning At	SE McLoughlin Blvd (Northbound)				SE McLoughlin Blvd (Southbound)				SE Washington St (Eastbound)				SE Washington St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	136	4	0	1	18	0	0	1	0	0	0	2	0	7	0	169	
7:05 AM	0	161	6	0	5	73	0	0	0	0	0	0	4	0	4	0	253	
7:10 AM	0	121	6	0	2	42	0	0	0	0	0	0	2	0	12	0	185	
7:15 AM	0	186	5	0	4	55	0	0	0	0	0	0	1	0	1	0	252	
7:20 AM	0	146	7	0	9	54	0	0	0	0	0	0	2	0	4	0	222	
7:25 AM	0	148	9	0	10	54	0	0	0	0	0	0	4	0	6	0	231	
7:30 AM	0	166	12	0	4	47	0	0	0	0	0	0	2	0	7	0	238	
7:35 AM	0	148	15	0	6	55	0	0	0	0	0	0	5	0	4	0	233	
7:40 AM	0	153	4	0	6	55	0	0	1	0	0	0	11	0	7	0	237	
7:45 AM	0	127	9	0	4	78	0	0	0	0	0	0	2	0	3	0	223	
7:50 AM	0	124	13	0	9	70	0	0	1	0	0	0	5	0	7	0	229	
7:55 AM	0	120	23	0	4	74	0	0	0	0	0	0	5	0	6	0	232	2704
8:00 AM	0	106	11	0	6	52	0	0	0	0	0	0	6	0	9	0	190	2725
8:05 AM	0	130	14	0	3	53	0	0	0	0	0	0	11	0	6	0	217	2689
8:10 AM	0	147	8	0	6	50	0	0	1	0	0	0	12	0	11	0	235	2739
8:15 AM	0	129	14	0	5	61	0	0	0	0	0	0	5	0	5	0	219	2706
8:20 AM	0	137	12	0	12	44	0	0	0	0	0	0	4	0	4	0	213	2697
8:25 AM	0	133	8	0	7	47	0	0	0	0	0	0	8	0	6	0	209	2675
8:30 AM	0	122	9	0	9	63	0	0	1	0	0	0	9	0	3	0	216	2653
8:35 AM	0	94	10	0	7	63	0	0	0	0	0	0	3	0	4	0	181	2601
8:40 AM	0	89	4	0	2	54	0	0	0	0	0	0	14	0	7	0	170	2534
8:45 AM	0	108	12	0	9	58	0	0	0	0	0	0	0	0	7	0	194	2505
8:50 AM	0	97	8	0	7	34	0	0	0	1	0	0	8	0	6	0	161	2437
8:55 AM	0	119	5	0	6	59	0	0	0	0	0	0	6	0	7	0	202	2407

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1868	124	0	64	628	0	0	4	0	0	0	72	0	72	0	2832
Heavy Trucks	0	56	12		0	24	0		0	0	0		8	0	0		100
Pedestrians		12				4				0				0			16
Bicycles	0	2	1		0	0	0		0	0	0		1	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/13/2017 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Appendix C 2017 Existing Traffic Operations

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	26	233	13	0	27	169	18	0	28	13	55
Future Vol, veh/h	0	26	233	13	0	27	169	18	0	28	13	55
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	6	15	2	11	7	0	2	25	0	5
Mvmt Flow	0	30	265	15	0	31	192	20	0	32	15	63
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

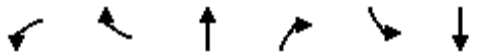
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.8	10.4	9.6
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	10%	13%	39%
Vol Thru, %	14%	86%	79%	28%
Vol Right, %	57%	5%	8%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	272	214	57
LT Vol	28	26	27	22
Through Vol	13	233	169	16
RT Vol	55	13	18	19
Lane Flow Rate	109	309	243	65
Geometry Grp	1	1	1	1
Degree of Util (X)	0.164	0.399	0.33	0.094
Departure Headway (Hd)	5.418	4.644	4.878	5.234
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	770	732	678
Service Time	3.499	2.702	2.941	3.323
HCM Lane V/C Ratio	0.166	0.401	0.332	0.096
HCM Control Delay	9.6	10.8	10.4	8.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.6	1.9	1.4	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	22	16	19
Future Vol, veh/h	0	22	16	19
Peak Hour Factor	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	25	18	22
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.9
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	43	33	1048	34	0	2096
Future Volume (vph)	43	33	1048	34	0	2096
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1719	1547	3519			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1719	1547	3519			3539
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	45	34	1092	35	0	2183
RTOR Reduction (vph)	0	32	1	0	0	0
Lane Group Flow (vph)	45	2	1126	0	0	2183
Confl. Peds. (#/hr)	4	1		8	8	
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	5%	3%	2%	3%	0%	2%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	6.9	6.9	105.1			105.1
Effective Green, g (s)	6.9	6.9	105.1			105.1
Actuated g/C Ratio	0.06	0.06	0.88			0.88
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	98	88	3082			3099
v/s Ratio Prot	c0.03		0.32			c0.62
v/s Ratio Perm		0.00				
v/c Ratio	0.46	0.02	0.37			0.70
Uniform Delay, d1	54.7	53.4	1.4			2.4
Progression Factor	1.00	1.00	0.08			1.00
Incremental Delay, d2	2.0	0.1	0.3			1.4
Delay (s)	56.7	53.4	0.4			3.8
Level of Service	E	D	A			A
Approach Delay (s)	55.3		0.4			3.8
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	3.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	2	29	5	0	15	51	17	0	8	60	9	0	22	114	19
Future Vol, veh/h	0	2	29	5	0	15	51	17	0	8	60	9	0	22	114	19
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	50	0	0	2	0	2	6	2	12	2	11	2	0	1	5
Mvmt Flow	0	2	33	6	0	17	58	19	0	9	68	10	0	25	130	22
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.1	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	6%	18%	14%
Vol Thru, %	78%	81%	61%	74%
Vol Right, %	12%	14%	20%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	36	83	155
LT Vol	8	2	15	22
Through Vol	60	29	51	114
RT Vol	9	5	17	19
Lane Flow Rate	88	41	94	176
Geometry Grp	1	1	1	1
Degree of Util (X)	0.111	0.061	0.117	0.21
Departure Headway (Hd)	4.573	5.389	4.466	4.286
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	666	804	840
Service Time	2.592	3.412	2.486	2.3
HCM Lane V/C Ratio	0.112	0.062	0.117	0.21
HCM Control Delay	8.2	8.8	8.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.8

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	10	45	6	0	9	49	14	0	11	63	16	0	14	57	12
Future Vol, veh/h	0	10	45	6	0	9	49	14	0	11	63	16	0	14	57	12
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	0	2	0	2	11	0	7	2	0	19	0	2	0	19	25
Mvmt Flow	0	10	47	6	0	9	51	15	0	11	66	17	0	15	59	13
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	7.9	7.8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	16%	12%	17%
Vol Thru, %	70%	74%	68%	69%
Vol Right, %	18%	10%	19%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	61	72	83
LT Vol	11	10	9	14
Through Vol	63	45	49	57
RT Vol	16	6	14	12
Lane Flow Rate	94	64	75	86
Geometry Grp	1	1	1	1
Degree of Util (X)	0.11	0.077	0.093	0.102
Departure Headway (Hd)	4.229	4.357	4.464	4.265
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	850	825	806	843
Service Time	2.239	2.368	2.476	2.276
HCM Lane V/C Ratio	0.111	0.078	0.093	0.102
HCM Control Delay	7.8	7.7	7.9	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.3	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	157	0	73	0	1016	116	56	2058	0
Future Volume (vph)	1	0	0	157	0	73	0	1016	116	56	2058	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.98			0.99		1.00	1.00	
Flpb, ped/bikes		0.99		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.98		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1785		1666	1560			3415		1718	3539	
Flt Permitted		0.69		0.76	1.00			1.00		0.16	1.00	
Satd. Flow (perm)		1293		1328	1560			3415		286	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1	0	0	164	0	76	0	1058	121	58	2144	0
RTOR Reduction (vph)	0	0	0	0	65	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1	0	164	11	0	0	1172	0	58	2144	0
Confl. Peds. (#/hr)	9		15	15		9	13		21	21		13
Confl. Bikes (#/hr)			3						6			17
Heavy Vehicles (%)	0%	0%	0%	6%	0%	1%	0%	3%	6%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		18.1		18.1	18.1			68.3		89.9	93.9	
Effective Green, g (s)		18.1		18.1	18.1			68.3		89.9	93.9	
Actuated g/C Ratio		0.15		0.15	0.15			0.57		0.75	0.78	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		195		200	235			1943		472	2769	
v/s Ratio Prot					0.01			0.34		0.02	c0.61	
v/s Ratio Perm		0.00		c0.12						0.07		
v/c Ratio		0.01		0.82	0.05			0.60		0.12	0.77	
Uniform Delay, d1		43.3		49.4	43.6			17.0		13.7	7.2	
Progression Factor		1.00		1.00	1.00			1.00		0.80	0.71	
Incremental Delay, d2		0.0		21.9	0.1			1.4		0.1	1.6	
Delay (s)		43.3		71.3	43.6			18.4		11.0	6.8	
Level of Service		D		E	D			B		B	A	
Approach Delay (s)		43.3			62.5			18.4			6.9	
Approach LOS		D			E			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	19	84	66	0	15	121	33	0	59	57	14	0	24	69	59
Future Vol, veh/h	0	19	84	66	0	15	121	33	0	59	57	14	0	24	69	59
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	5	12	3	2	7	5	6	2	2	0	0	2	0	1	3
Mvmt Flow	0	21	94	74	0	17	136	37	0	66	64	16	0	27	78	66
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	9.8	9.5	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	11%	9%	16%
Vol Thru, %	44%	50%	72%	45%
Vol Right, %	11%	39%	20%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	169	169	152
LT Vol	59	19	15	24
Through Vol	57	84	121	69
RT Vol	14	66	33	59
Lane Flow Rate	146	190	190	171
Geometry Grp	1	1	1	1
Degree of Util (X)	0.207	0.253	0.26	0.228
Departure Headway (Hd)	5.094	4.793	4.933	4.809
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	698	742	722	740
Service Time	3.176	2.869	3.01	2.888
HCM Lane V/C Ratio	0.209	0.256	0.263	0.231
HCM Control Delay	9.5	9.5	9.8	9.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1	1	0.9

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	122	0	0	168	1	4
Future Vol, veh/h	122	0	0	168	1	4
Conflicting Peds, #/hr	0	17	17	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	290	0	0	400	2	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	307	0	707	307
Stage 1	-	-	-	-	307	-
Stage 2	-	-	-	-	400	-
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	-	-	1265	-	405	738
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1265	-	398	726
Mov Cap-2 Maneuver	-	-	-	-	398	-
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	681	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	623	-	-	1265	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	10.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	126	0	1	167	0	1	0	0	0	0	0
Future Vol, veh/h	0	126	0	1	167	0	1	0	0	0	0	0
Conflicting Peds, #/hr	0	0	20	20	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	50	50	50	50	92	50	92	50	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	0	252	0	2	334	0	2	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	334	0	0	272	0	0	590	610	334
Stage 1	-	-	-	-	-	-	338	338	-
Stage 2	-	-	-	-	-	-	252	272	-
Critical Hdwy	4.12	-	-	4.1	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1225	-	-	1303	-	-	470	409	708
Stage 1	-	-	-	-	-	-	722	641	-
Stage 2	-	-	-	-	-	-	790	685	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1225	-	-	1303	-	-	469	0	708
Mov Cap-2 Maneuver	-	-	-	-	-	-	469	0	-
Stage 1	-	-	-	-	-	-	721	0	-
Stage 2	-	-	-	-	-	-	790	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	1303	-	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	-	-
HCM Control Delay (s)	0	-	-	7.8	0	-	0
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

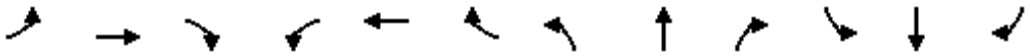
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	123	3	0	168	0	0
Future Vol, veh/h	123	3	0	168	0	0
Conflicting Peds, #/hr	0	20	20	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	324	8	0	442	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	352	0	790	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	442	-
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	-	-	1218	-	362	700
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	652	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1218	-	355	687
Mov Cap-2 Maneuver	-	-	-	-	355	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	652	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1218	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	98	8	7	127	25	13	23	8	16	27	28
Future Volume (vph)	17	98	8	7	127	25	13	23	8	16	27	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.99			0.99			0.95	
Flpb, ped/bikes		1.00			1.00			0.97			0.99	
Frt		0.99			0.98			0.98			0.95	
Flt Protected		0.99			1.00			0.99			0.99	
Satd. Flow (prot)		1761			1798			1580			1469	
Flt Permitted		0.97			0.99			0.93			0.95	
Satd. Flow (perm)		1713			1788			1494			1411	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	19	111	9	8	144	28	15	26	9	18	31	32
RTOR Reduction (vph)	0	2	0	0	5	0	0	7	0	0	21	0
Lane Group Flow (vph)	0	137	0	0	175	0	0	43	0	0	60	0
Confl. Peds. (#/hr)	11		29	29		11	73		26	26		73
Confl. Bikes (#/hr)			1			3						1
Heavy Vehicles (%)	35%	0%	12%	0%	3%	0%	8%	17%	0%	6%	11%	22%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		28.2			28.2			11.8			11.8	
Effective Green, g (s)		28.2			28.2			11.8			11.8	
Actuated g/C Ratio		0.61			0.61			0.26			0.26	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1045			1091			381			360	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.10			0.03			c0.04	
v/c Ratio		0.13			0.16			0.11			0.17	
Uniform Delay, d1		3.8			3.9			13.2			13.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.0			0.1	
Delay (s)		3.8			3.9			13.2			13.5	
Level of Service		A			A			B			B	
Approach Delay (s)		3.8			3.9			13.2			13.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.16		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	142	10	34	140	11	31
Future Vol, veh/h	142	10	34	140	11	31
Conflicting Peds, #/hr	0	13	13	0	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	3	9	10
Mvmt Flow	154	11	37	152	12	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	178	0	401	176
Stage 1	-	-	-	-	173	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.1	-	6.49	6.3
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.2	-	3.581	3.39
Pot Cap-1 Maneuver	-	-	1410	-	592	847
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	794	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1406	-	567	834
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	770	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	742	-	-	1406	-
HCM Lane V/C Ratio	0.062	-	-	0.026	-
HCM Control Delay (s)	10.2	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	4	117	0	100	41	0	45	11
Future Vol, veh/h	0	4	117	0	100	41	0	45	11
Peak Hour Factor	0.92	0.85	0.85	0.92	0.92	0.92	0.92	0.85	0.85
Heavy Vehicles, %	2	0	1	2	2	2	2	0	0
Mvmt Flow	0	5	138	0	109	45	0	53	13
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	8.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	71%	3%	0%
Vol Thru, %	29%	0%	80%
Vol Right, %	0%	97%	20%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	141	121	56
LT Vol	100	4	0
Through Vol	41	0	45
RT Vol	0	117	11
Lane Flow Rate	153	142	66
Geometry Grp	1	1	1
Degree of Util (X)	0.186	0.151	0.076
Departure Headway (Hd)	4.379	3.826	4.153
Convergence, Y/N	Yes	Yes	Yes
Cap	812	942	849
Service Time	2.442	1.826	2.246
HCM Lane V/C Ratio	0.188	0.151	0.078
HCM Control Delay	8.5	7.5	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	175	119	28	25	6
Future Vol, veh/h	14	175	119	28	25	6
Conflicting Peds, #/hr	12	0	0	12	48	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	4	4	25	0	0
Mvmt Flow	16	197	134	31	28	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	177	0	-	0	437	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	276	-
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	1411	-	-	-	581	889
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1411	-	-	-	560	879
Mov Cap-2 Maneuver	-	-	-	-	560	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	602
HCM Lane V/C Ratio	0.011	-	-	-	0.058
HCM Control Delay (s)	7.6	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Future Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	11	4	2	13	5	0	2	24	0	24
Mvmt Flow	0	9	200	32	0	39	254	11	0	32	1	22
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

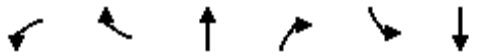
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	10.5	9
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	4%	13%	44%
Vol Thru, %	2%	83%	83%	17%
Vol Right, %	40%	13%	4%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	190	241	18
LT Vol	25	7	31	8
Through Vol	1	158	201	3
RT Vol	17	25	9	7
Lane Flow Rate	54	241	305	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.292	0.388	0.032
Departure Headway (Hd)	5.44	4.368	4.58	5.061
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	823	787	705
Service Time	3.485	2.393	2.605	3.11
HCM Lane V/C Ratio	0.082	0.293	0.388	0.033
HCM Control Delay	9	9.2	10.5	8.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	1.2	1.8	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	8	3	7
Future Vol, veh/h	0	8	3	7
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	10	4	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	18	1652	56	0	754
Future Volume (vph)	25	18	1652	56	0	754
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1671	1503	3486			3471
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1671	1503	3486			3471
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	27	19	1776	60	0	811
RTOR Reduction (vph)	0	18	1	0	0	0
Lane Group Flow (vph)	27	1	1835	0	0	811
Confl. Peds. (#/hr)	3	1		3	3	
Confl. Bikes (#/hr)				17		
Heavy Vehicles (%)	8%	6%	3%	2%	0%	4%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	4.7	4.7	107.3			107.3
Effective Green, g (s)	4.7	4.7	107.3			107.3
Actuated g/C Ratio	0.04	0.04	0.89			0.89
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	65	58	3117			3103
v/s Ratio Prot	c0.02		c0.53			0.23
v/s Ratio Perm		0.00				
v/c Ratio	0.42	0.01	0.59			0.26
Uniform Delay, d1	56.3	55.4	1.4			0.9
Progression Factor	1.00	1.00	3.37			1.00
Incremental Delay, d2	2.5	0.1	0.6			0.2
Delay (s)	58.8	55.5	5.4			1.1
Level of Service	E	E	A			A
Approach Delay (s)	57.4		5.4			1.1
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	8	43	2	0	6	45	13	0	2	55	21	0	20	27	4
Future Vol, veh/h	0	8	43	2	0	6	45	13	0	2	55	21	0	20	27	4
Peak Hour Factor	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74
Heavy Vehicles, %	2	0	2	0	2	0	9	8	2	0	0	0	2	0	11	0
Mvmt Flow	0	11	58	3	0	8	61	18	0	3	74	28	0	27	36	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	7.8	7.8	7.8
HCM LOS	A	A	A	A

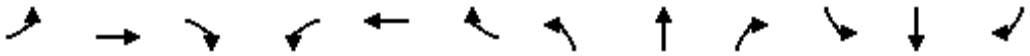
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	15%	9%	39%
Vol Thru, %	71%	81%	70%	53%
Vol Right, %	27%	4%	20%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	53	64	51
LT Vol	2	8	6	20
Through Vol	55	43	45	27
RT Vol	21	2	13	4
Lane Flow Rate	105	72	86	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.122	0.087	0.102	0.084
Departure Headway (Hd)	4.175	4.388	4.263	4.398
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	862	819	843	818
Service Time	2.185	2.399	2.274	2.408
HCM Lane V/C Ratio	0.122	0.088	0.102	0.084
HCM Control Delay	7.8	7.8	7.8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			✣				✣				✣				✣	
Traffic Vol, veh/h	0	18	57	1	0	15	63	25	0	1	28	10	0	18	29	10
Future Vol, veh/h	0	18	57	1	0	15	63	25	0	1	28	10	0	18	29	10
Peak Hour Factor	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82
Heavy Vehicles, %	2	0	2	0	2	13	5	8	2	0	32	0	2	0	34	20
Mvmt Flow	0	22	70	1	0	18	77	30	0	1	34	12	0	22	35	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.1	7.6	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	24%	15%	32%
Vol Thru, %	72%	75%	61%	51%
Vol Right, %	26%	1%	24%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	76	103	57
LT Vol	1	18	15	18
Through Vol	28	57	63	29
RT Vol	10	1	25	10
Lane Flow Rate	48	93	126	70
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.112	0.149	0.085
Departure Headway (Hd)	4.324	4.349	4.381	4.405
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	832	830	824	817
Service Time	2.332	2.349	2.381	2.413
HCM Lane V/C Ratio	0.058	0.112	0.153	0.086
HCM Control Delay	7.6	7.9	8.1	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.5	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	0	76	0	75	0	1620	143	72	686	0
Future Volume (vph)	3	0	0	76	0	75	0	1620	143	72	686	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.99		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1355		1638	1547			3443		1787	3438	
Flt Permitted		0.65		0.76	1.00			1.00		0.08	1.00	
Satd. Flow (perm)		929		1303	1547			3443		142	3438	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	3	0	0	81	0	80	0	1723	152	77	730	0
RTOR Reduction (vph)	0	0	0	0	71	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	3	0	81	9	0	0	1871	0	77	730	0
Confl. Peds. (#/hr)	1		14	14		1	3		1	1		3
Confl. Bikes (#/hr)			3						17			3
Heavy Vehicles (%)	33%	0%	0%	8%	0%	3%	0%	3%	7%	1%	5%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		12.9		12.9	12.9			90.0		95.1	99.1	
Effective Green, g (s)		12.9		12.9	12.9			90.0		95.1	99.1	
Actuated g/C Ratio		0.11		0.11	0.11			0.75		0.79	0.83	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		99		140	166			2582		182	2839	
v/s Ratio Prot					0.01			c0.54		c0.02	0.21	
v/s Ratio Perm		0.00		c0.06						0.32		
v/c Ratio		0.03		0.58	0.05			0.72		0.42	0.26	
Uniform Delay, d1		47.9		51.0	48.1			8.2		20.9	2.3	
Progression Factor		1.00		1.00	1.00			1.00		0.95	0.96	
Incremental Delay, d2		0.1		4.7	0.1			1.8		0.9	0.2	
Delay (s)		48.0		55.6	48.2			10.0		20.8	2.4	
Level of Service		D		E	D			B		C	A	
Approach Delay (s)		48.0			51.9			10.0			4.2	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	29	94	78	0	14	78	12	0	68	56	7	0	9	23	7
Future Vol, veh/h	0	29	94	78	0	14	78	12	0	68	56	7	0	9	23	7
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	0	11	0	2	0	11	0	2	0	2	0	2	11	9	0
Mvmt Flow	0	35	112	93	0	17	93	14	0	81	67	8	0	11	27	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	8.5	9.2	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	14%	13%	23%
Vol Thru, %	43%	47%	75%	59%
Vol Right, %	5%	39%	12%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	201	104	39
LT Vol	68	29	14	9
Through Vol	56	94	78	23
RT Vol	7	78	12	7
Lane Flow Rate	156	239	124	46
Geometry Grp	1	1	1	1
Degree of Util (X)	0.21	0.289	0.159	0.065
Departure Headway (Hd)	4.846	4.346	4.629	5.048
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	739	826	774	707
Service Time	2.888	2.378	2.666	3.098
HCM Lane V/C Ratio	0.211	0.289	0.16	0.065
HCM Control Delay	9.2	9.1	8.5	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	1.2	0.6	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	109	1	0	104	0	0
Future Vol, veh/h	109	1	0	104	0	0
Conflicting Peds, #/hr	0	14	14	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	436	4	0	416	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	454	0	868	452
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	416	-
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	-	-	1117	-	325	612
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1117	-	321	604
Mov Cap-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1117	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	108	1	0	104	0	0	0	0	0	0	0
Future Vol, veh/h	0	108	1	0	104	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	21	21	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	25	25	25	25	92	25	92	25	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	0	432	4	0	416	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	416	0	0	457	0	0	850	873	416
Stage 1	-	-	-	-	-	-	416	416	-
Stage 2	-	-	-	-	-	-	434	457	-
Critical Hdwy	4.12	-	-	4.1	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1143	-	-	1114	-	-	331	289	637
Stage 1	-	-	-	-	-	-	666	592	-
Stage 2	-	-	-	-	-	-	653	568	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1143	-	-	1114	-	-	331	0	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	0	-
Stage 1	-	-	-	-	-	-	666	0	-
Stage 2	-	-	-	-	-	-	653	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1143	-	-	1114	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-	-	0
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

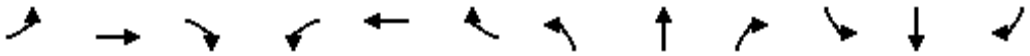
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	1	0	104	0	0
Future Vol, veh/h	107	1	0	104	0	0
Conflicting Peds, #/hr	0	21	21	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	428	4	0	416	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	453	0	867	451
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	416	-
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	-	-	1118	-	326	613
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1118	-	319	601
Mov Cap-2 Maneuver	-	-	-	-	319	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	670	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1118	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	94	2	10	75	8	9	16	10	5	7	20
Future Volume (vph)	11	94	2	10	75	8	9	16	10	5	7	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.94	
Flpb, ped/bikes		1.00			1.00			0.98			1.00	
Frt		1.00			0.99			0.96			0.92	
Flt Protected		0.99			0.99			0.99			0.99	
Satd. Flow (prot)		1700			1834			1536			1297	
Flt Permitted		0.98			0.98			0.94			0.97	
Satd. Flow (perm)		1668			1798			1469			1268	
Peak-hour factor, PHF	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Adj. Flow (vph)	18	152	3	16	121	13	15	26	16	8	11	32
RTOR Reduction (vph)	0	0	0	0	2	0	0	12	0	0	24	0
Lane Group Flow (vph)	0	173	0	0	148	0	0	45	0	0	27	0
Confl. Peds. (#/hr)	21		19	19		21	48		16	16		48
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	50%	6%	0%	10%	0%	0%	11%	12%	20%	0%	29%	30%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		29.5			29.5			11.8			11.8	
Effective Green, g (s)		29.5			29.5			11.8			11.8	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1035			1116			364			314	
v/s Ratio Prot												
v/s Ratio Perm		c0.10			0.08			c0.03			0.02	
v/c Ratio		0.17			0.13			0.12			0.09	
Uniform Delay, d1		3.8			3.7			13.8			13.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.1			0.0	
Delay (s)		3.8			3.7			13.9			13.8	
Level of Service		A			A			B			B	
Approach Delay (s)		3.8			3.7			13.9			13.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.15		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	88	23	119	250	50	88
Future Vol, veh/h	88	23	119	250	50	88
Conflicting Peds, #/hr	0	24	24	0	5	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	22	11	3	0	8
Mvmt Flow	105	27	142	298	60	105

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	156	0	728	154
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	586	-
Critical Hdwy	-	-	4.21	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.372
Pot Cap-1 Maneuver	-	-	1371	-	393	876
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	560	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1355	-	334	846
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	487	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	-	-	1355	-
HCM Lane V/C Ratio	0.302	-	-	0.105	-
HCM Control Delay (s)	14.5	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.3	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	14	77	0	114	40	0	19	4
Future Vol, veh/h	0	14	77	0	114	40	0	19	4
Peak Hour Factor	0.92	0.87	0.87	0.92	0.92	0.92	0.92	0.87	0.87
Heavy Vehicles, %	2	7	1	2	2	2	2	0	0
Mvmt Flow	0	16	89	0	124	43	0	22	5
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	8.4	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	74%	15%	0%
Vol Thru, %	26%	0%	83%
Vol Right, %	0%	85%	17%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	154	91	23
LT Vol	114	14	0
Through Vol	40	0	19
RT Vol	0	77	4
Lane Flow Rate	167	105	26
Geometry Grp	1	1	1
Degree of Util (X)	0.199	0.116	0.03
Departure Headway (Hd)	4.286	3.984	4.109
Convergence, Y/N	Yes	Yes	Yes
Cap	832	905	858
Service Time	2.338	1.984	2.199
HCM Lane V/C Ratio	0.201	0.116	0.03
HCM Control Delay	8.4	7.5	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.4	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	29	99	156	104	47	10
Future Vol, veh/h	29	99	156	104	47	10
Conflicting Peds, #/hr	5	0	0	5	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	14	16	3	17	21	20
Mvmt Flow	35	119	188	125	57	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	318	0	-	0	448	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	4.24	-	-	-	6.61	6.4
Critical Hdwy Stg 1	-	-	-	-	5.61	-
Critical Hdwy Stg 2	-	-	-	-	5.61	-
Follow-up Hdwy	2.326	-	-	-	3.689	3.48
Pot Cap-1 Maneuver	1177	-	-	-	535	741
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1177	-	-	-	513	737
Mov Cap-2 Maneuver	-	-	-	-	513	-
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1177	-	-	-	542
HCM Lane V/C Ratio	0.03	-	-	-	0.127
HCM Control Delay (s)	8.2	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Appendix D ODOT Crash Data

081 PACIFIC HIGHWAY EAST — SE Washington St & SE McLoughlin Blvd OR 99E (Hwy 081)

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHWK	DAY/TIME	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS / RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02309	N	N	N		06/29/2013	CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	BIKE	01	NONE 0	TURN-L											19,02
CITY					Sat 6P	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	SE		TRF SIGNAL	N	DRY	TURN		PRVTE	NE SE									000		00
						PORTLAND UA	5.93	WASHINGTON ST	05	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y		027	000		02
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					
																	STRGHT	01	BIKE	INJC	32	M		01	000	035		19
																	NW SE											
88445	N	N	N		08/16/2014	CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT										004	27,29
NONE					Sat 1P	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE NW									000		00
						PORTLAND UA	5.93	WASHINGTON ST	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	33	F	OR-Y		016,026	038		27,29
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					
																		02	PSNG	NO<5	03	F			000	000		00
															02	NONE 0	STOP											
																UNKN	SE NW									011	004	00
																UNKNOWN		01	DRVR	NONE	00	F	OR-Y		000	000		00
																							UNK					
03515	N	N	N		09/09/2014	CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											29
CITY					Tue 6A	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE NW									000		00
						PORTLAND UA	5.93	WASHINGTON ST	06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	35	M	OR-Y		026	000		29
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					
															02	NONE 0	STOP											
																PRVTE	SE NW									011		00
																PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		000	000		00
																							OR<25					
04288	N	N	N	N	10/18/2015	CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	STRGHT											17,29
CITY					Sun 2P	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	SE		TRF SIGNAL	N	DRY	REAR		PRVTE	SE NW									000		00
						PORTLAND UA	5.93	WASHINGTON ST	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		026	028		17,29
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					
																		02	PSNG	INJB	02	M			000	000		00
																		03	PSNG	INJC	08	F			000	000		00
															02	NONE 0	STOP											
																PRVTE	SE NW									011		00
																PSNGR CAR		01	DRVR	NONE	37	M	OTH-Y		000	000		00
																							OR<25					
01809	N	N	N	N	05/23/2013	CLACKAMAS	1 14		INTER	3-LEG	N	N	CLD	PED	01	NONE 0	TURN-L											02
CITY					Thu 9A	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	S		TRF SIGNAL	N	DRY	PED		PRVTE	E S									000		00
						PORTLAND UA	5.93	WASHINGTON ST	05	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	F	OR-Y		029	000		02
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					
																	STRGHT	01	PED	INJB	54	F		01	055	035		00
																	W E											
04241	N	N	N		11/04/2013	CLACKAMAS	1 14		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT										013	07
NO RPT					Mon 10A	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	S		TRF SIGNAL	N	WET	REAR		PRVTE	S N									000		00
						PORTLAND UA	5.93	WASHINGTON ST	06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y		026	000		07
No	*45 26 32.48*	*-122 38 31.19*					008100100S00	1															OR<25					

081 PACIFIC HIGHWAY EAST — SE Washington St & SE McLoughlin Blvd OR 99E (Hwy 081)

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	S P E D	R A L C	S U G S	W C H L	O R K	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# FC / CMPT/MLG / MILEPNT / LRS	CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
																02	NONE 0 / PRVTE	STOP / S N									011	013	00
																	PSNGR CAR		01	DRVR	INJC	32	M	OR-Y / OR<25		000	000		00
																			02	PSNG	INJC	04	F			000	000		00
																03	NONE 0 / PRVTE	STOP / S N									022		00
																	PSNGR CAR		01	DRVR	NONE	38	M	OR-Y / OR<25		000	000		00
00922	Y	N	N	N	N	03/14/2015	CLACKAMAS	1 14		INTER	3-LEG	N	N	RAIN	S-1STOP	01	NONE 0 / PRVTE	STRGHT / NW SE										093	27,01,29
CITY						Sat 11P	MILWAUKIE	MN 0	MCLOUGHLIN BLVD	NW		TRF SIGNAL	N	WET	REAR												000		00
							PORTLAND UA	5.93	WASHINGTON ST	06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y / OR<25		047,026	038	093	27,01,29
No	*45 26 32.48*		*-122 38 31.19*					008100100S00	1																				
																02	NONE 0 / PRVTE	STOP / NW SE									011		00
																	PSNGR CAR		01	DRVR	INJC	41	M	OR-Y / OR<25		000	000		00
																			02	PSNG	INJC	33	F			000	000		00

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MILWAUKIE, CLACKAMAS COUNTY — SE Washington St & SE McLoughlin Blvd OR 99E (Hwy 081)

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPED	ALC	DRGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
02117	N	N	N			06/02/2014	17	MCLOUGHLIN BLVD	INTER	3-LEG	N	N	UNK	ANGL-STP	01	NONE 0	TURN-R											08
NO RPT						Mon 1P	0	WASHINGTON ST	SE		TRF SIGNAL	N	UNK	TURN		PRVTE	SE NE										00
No						*45 26 32.48*			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	45	M	OR-Y		001	000		08
																								OR<25				
															02	NONE 0	STOP										00
																PRVTE	NE SW									012	
																PSNGR CAR		01	DRVR	NONE	76	F	OR-Y		000	000		00
																							OR<25				

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Washington St & SE McLoughlin Blvd OR 99E (Hwy 081)
January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	2	0	2	0	4	0	1	1	1	1	2	0	0
2015 TOTAL	0	2	0	2	0	4	0	1	1	1	1	2	0	0
YEAR: 2014														
REAR-END	0	0	2	2	0	0	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	0	1	0	1	0	0
2014 TOTAL	0	0	3	3	0	0	0	2	0	3	0	3	0	0
YEAR: 2013														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	1	0	1	0	0
REAR-END	0	1	0	1	0	3	0	0	1	1	0	1	0	0
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2013 TOTAL	0	3	0	3	0	5	0	2	1	3	0	3	0	0
FINAL TOTAL	0	5	3	8	0	9	0	5	2	7	1	8	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

CITY OF MILWAUKIE, CLACKAMAS COUNTY — SE Washington St & SE Main St

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
92443	N	N	N	N	N	07/11/2011	16	MAIN ST	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 1	STRGHT											07
CITY						Mon 2P	0	WASHINGTON ST	W		STOP SIGN	N	DRY	REAR		PRVTE	W E									001		00
No	*45 26 33.00*					*-122 38 27.14*		1	06	0		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	32	M	OTH-Y OR<25		026	000		07
															02	NONE 0	STRGHT											
																PRVTE	W E									000		00
																PSNGR CAR		01	DRVR	NONE	78	M	OR-Y OR>25		000	000		00
03241	N	N	N			08/21/2014	16	MAIN ST	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											03
CITY						Thu 9A	0	WASHINGTON ST	CN		STOP SIGN	N	DRY	ANGL		PRVTE	S N									015		00
No	*45 26 32.94*					*-122 38 27.22*		1	02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	38	F	OR-Y OR<25		000	000		00
															02	NONE 0	STRGHT											
																PRVTE	E W									000		00
																PSNGR CAR		01	DRVR	NONE	87	F	OR-Y OR<25		021	000		03

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Washington St & SE Main St

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2014														
ANGLE	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2014 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2011														
REAR-END	0	0	1	1	0	0	1	1	0	1	0	1	0	0
2011 TOTAL	0	0	1	1	0	0	1	1	0	1	0	1	0	0
FINAL TOTAL	0	0	2	2	0	0	1	2	0	2	0	2	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

CITY OF MILWAUKIE, CLACKAMAS COUNTY

SE Washington St & SE 27th Ave

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
01034	N	N	N	Y	N	03/25/2015	17	WASHINGTON ST	INTER	3-LEG	N	N	CLR	PED	01	NONE 0	TURN-L										030	02,32,19
CITY						Wed 9P	0	27TH AVE	SE		UNKNOWN	N	DRY	PED		PRVTE	NE SE									000	030	00
No						*45 26 35.47 -122 38 7.21*		1	05	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	27	F	OR-Y OR<25		029,052	000		02,32
																	STRGHT E W	01	PTOW	INJB	37	M		01	000	034		19

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Washington St & SE 27th Ave

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
PEDESTRIAN	0	1	0	1	0	1	0	1	0	0	1	1	0	0
2015 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
FINAL TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Washington St & SE 21st Ave
January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

081 PACIFIC HIGHWAY EAST — SE Monroe St & SE McLoughlin Blvd OR 99E (Hwy 081)

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPEED	ALCOHL	DRUGS	SCHL BUS	WORK RELATED	DATE / DAY / TIME	LAT/LONG	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF-CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN EVENT	CAUSE
00542	N	N	N			02/10/2012		CLACKAMAS	1 14		INTER	3-LEG	N	N	UNK	S-1STOP	01	NONE 0	NONE	STRGHT										07
NONE						Fri 6P		MILWAUKIE	MN 0	MONROE ST	SE		TRF SIGNAL	N	DRY	REAR		PRVTE		SE NW									000	00
								PORTLAND UA	5.83	MCLOUGHLIN BLVD	06	0		N	DLIT	INJ		PSNGR CAR			01	DRVR	INJC	00	M	OR-Y		026	000	07
No							45 26 37.97 -122 38 32.58		008100100	S00 1																OR>25				
																	02	NONE 0		STOP										
																		PRVTE		SE NW									011	00
																		PSNGR CAR			01	DRVR	NONE	54	F	OR-Y		000	000	00
																										OR<25				
03164	N	N	N			08/26/2012		CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	NONE	STRGHT										07
NONE						Sun 12P		MILWAUKIE	MN 0	MONROE ST	SE		TRF SIGNAL	N	DRY	REAR		PRVTE		SE NW									000	00
								PORTLAND UA	5.83	MCLOUGHLIN BLVD	06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	47	F	OR-Y		026	000	07
No							45 26 37.97 -122 38 32.58		008100100	S00 1																OR<25				
																	02	NONE 0		STOP										
																		PRVTE		SE NW									011	00
																		PSNGR CAR			01	DRVR	INJC	61	F	OR-Y		000	000	00
																										OR<25				
01236	N	N	N			04/07/2015		CLACKAMAS	1 14		INTER	3-LEG	N	N	CLD	S-1STOP	01	NONE 0	NONE	STRGHT										29
NONE						Tue 8A		MILWAUKIE	MN 0	MONROE ST	SE		TRF SIGNAL	N	WET	REAR		PRVTE		SE NW									000	00
								PORTLAND UA	5.83	MCLOUGHLIN BLVD	06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	35	M	OR-Y		026	000	29
No							45 26 37.97 -122 38 32.58		008100100	S00 1																OR<25				
																	02	NONE 0		STOP										
																		PRVTE		SE NW									011	00
																		PSNGR CAR			01	DRVR	INJC	39	F	OR-Y		000	000	00
																										OR<25				
																					02	PSNG	INJC	07	M			000	000	00
02388	N	N	N	N	N	06/21/2014		CLACKAMAS	1 14		INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 0	NONE	STRGHT										07
NONE						Sat 5P		MILWAUKIE	MN 0	MONROE ST	NW		TRF SIGNAL	N	DRY	REAR		PRVTE		N S									000	00
								PORTLAND UA	5.83	MCLOUGHLIN BLVD	06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	38	M	OR-Y		043,026	000	07
No							45 26 37.97 -122 38 32.58		008100100	S00 1																OR<25				
																	02	NONE 0		STOP										
																		PRVTE		N S									011	00
																		PSNGR CAR			01	DRVR	INJC	59	F	OR-Y		000	000	00
																										OR<25				

171 CLACKAMAS SE Monroe St & SE McLoughlin Blvd OR 99E (Hwy 081)

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPEED	ALCHL	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC	CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00786	N	N	N	N	N	03/07/2013	CLACKAMAS	1	12		INTER	CROSS	N	N	CLR	BIKE													110	18,19,02
CITY						Thu 6P	MILWAUKIE	MN 0		MONROE ST	CN		TRF SIGNAL	N	DRY	TURN														
							PORTLAND UA	0.78		MCLOUGHLIN BLVD	03	0		N	DLIT	INJ			STRGHT	01	BIKE	INJB	28	M		02	055,028,039	035		18,19,02
No						*45 26 42.66 -122 37 54.11*		017100100S00		1									SE NW											
																	01	NONE	0	TURN-R										
																		PRVTE		W S								000		00
																		PSNGR CAR			01	DRVR	NONE	26	F	OR-Y		000	000		00
																										OR<25					

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Monroe St & SE McLoughlin Blvd OR 99E (Hwy 081)
January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2015														
REAR-END	0	1	0	1	0	2	0	0	1	1	0	1	0	0
2015 TOTAL	0	1	0	1	0	2	0	0	1	1	0	1	0	0
YEAR: 2014														
REAR-END	0	1	0	1	0	1	0	1	0	1	0	1	0	0
2014 TOTAL	0	1	0	1	0	1	0	1	0	1	0	1	0	0
YEAR: 2013														
TURNING MOVEMENTS	0	1	0	1	0	1	0	1	0	0	1	1	0	0
2013 TOTAL	0	1	0	1	0	1	0	1	0	0	1	1	0	0
YEAR: 2012														
REAR-END	0	2	0	2	0	2	0	2	0	1	1	2	0	0
2012 TOTAL	0	2	0	2	0	2	0	2	0	1	1	2	0	0
FINAL TOTAL	0	5	0	5	0	6	0	4	1	3	2	5	0	0

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Monroe St & SE Main St

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Monroe St & SE 21st St

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

CITY OF MILWAUKIE, CLACKAMAS COUNTY — SE Main St / SE Lake Rd & SE 21st Ave

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

SER# / INVEST / UNLOC?	SPEED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / *LAT/LONG*	FC / DISTNC	CITY STREET / FIRST STREET / SECOND STREET / INTERSECTION SEQ #	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFF-RD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00904	Y	N	N			03/17/2013	16	LAKE RD	INTER	3-LEG	N	Y	RAIN	FIX OBJ	01	NONE 0	TURN-L										062,059	30,08
CITY						Sun 4A	0	21ST AVE	S		REG-SIGN	N	WET	FIX		PRVTE	N SE									000	062,059	00
No						*45 26 25.99* *-122 38 21.56*	1		05	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	26	M	OR-Y OR<25		050,001	000		30,08

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHIC
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

SE Main St / SE Lake Rd & SE 21st Ave

January 1, 2011 thriuogh December 31, 2015 *Data for 2015 is preliminary and subject to change.

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2013														
FIXED / OTHER OBJECT	0	0	1	1	0	0	0	0	1	0	1	1	0	1
2013 TOTAL	0	0	1	1	0	0	0	0	1	0	1	1	0	1
FINAL TOTAL	0	0	1	1	0	0	0	0	1	0	1	1	0	1

Disclaimer: A higher number of crashes may be reported as of 2011 compared to prior years. This does not reflect an increase in annual crashes. The higher numbers result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics.

Appendix E 2019 Background Traffic Operations

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	27	242	14	0	28	176	19	0	29	14	57
Future Vol, veh/h	0	27	242	14	0	28	176	19	0	29	14	57
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	6	15	2	11	7	0	2	25	0	5
Mvmt Flow	0	31	275	16	0	32	200	22	0	33	16	65
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

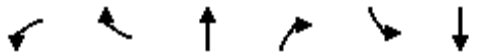
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.1	10.6	9.7
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	10%	13%	38%
Vol Thru, %	14%	86%	79%	28%
Vol Right, %	57%	5%	9%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	283	223	60
LT Vol	29	27	28	23
Through Vol	14	242	176	17
RT Vol	57	14	19	20
Lane Flow Rate	114	322	253	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.173	0.419	0.347	0.102
Departure Headway (Hd)	5.482	4.685	4.923	5.402
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	648	762	725	667
Service Time	3.577	2.753	2.995	3.402
HCM Lane V/C Ratio	0.176	0.423	0.349	0.102
HCM Control Delay	9.7	11.1	10.6	9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.6	2.1	1.6	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations			↕	
Traffic Vol, veh/h	0	23	17	20
Future Vol, veh/h	0	23	17	20
Peak Hour Factor	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	26	19	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	34	1095	35	0	2187
Future Volume (vph)	45	34	1095	35	0	2187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1719	1547	3519			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1719	1547	3519			3539
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	47	35	1141	36	0	2278
RTOR Reduction (vph)	0	33	1	0	0	0
Lane Group Flow (vph)	47	2	1176	0	0	2278
Confl. Peds. (#/hr)	4	1		8	8	
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	5%	3%	2%	3%	0%	2%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	7.0	7.0	105.0			105.0
Effective Green, g (s)	7.0	7.0	105.0			105.0
Actuated g/C Ratio	0.06	0.06	0.88			0.88
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	100	90	3079			3096
v/s Ratio Prot	c0.03		0.33			c0.64
v/s Ratio Perm		0.00				
v/c Ratio	0.47	0.02	0.38			0.74
Uniform Delay, d1	54.7	53.3	1.4			2.6
Progression Factor	1.00	1.00	0.05			1.00
Incremental Delay, d2	2.0	0.1	0.3			1.6
Delay (s)	56.7	53.3	0.4			4.2
Level of Service	E	D	A			A
Approach Delay (s)	55.3		0.4			4.2
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	2	30	5	0	18	53	16	0	8	62	9	0	23	119	20
Future Vol, veh/h	0	2	30	5	0	18	53	16	0	8	62	9	0	23	119	20
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	50	0	0	2	0	2	6	2	12	2	11	2	0	1	5
Mvmt Flow	0	2	34	6	0	20	60	18	0	9	70	10	0	26	135	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.2	8.2	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	5%	21%	14%
Vol Thru, %	78%	81%	61%	73%
Vol Right, %	11%	14%	18%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	37	87	162
LT Vol	8	2	18	23
Through Vol	62	30	53	119
RT Vol	9	5	16	20
Lane Flow Rate	90	42	99	184
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.063	0.124	0.22
Departure Headway (Hd)	4.6	5.422	4.51	4.304
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	661	796	836
Service Time	2.621	3.449	2.533	2.321
HCM Lane V/C Ratio	0.115	0.064	0.124	0.22
HCM Control Delay	8.2	8.8	8.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.8

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	10	47	6	0	9	51	15	0	11	66	17	0	15	59	12
Future Vol, veh/h	0	10	47	6	0	9	51	15	0	11	66	17	0	15	59	12
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	0	2	0	2	11	0	7	2	0	19	0	2	0	19	25
Mvmt Flow	0	10	49	6	0	9	53	16	0	11	69	18	0	16	61	13
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8	7.8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	16%	12%	17%
Vol Thru, %	70%	75%	68%	69%
Vol Right, %	18%	10%	20%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	63	75	86
LT Vol	11	10	9	15
Through Vol	66	47	51	59
RT Vol	17	6	15	12
Lane Flow Rate	98	66	78	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.08	0.097	0.107
Departure Headway (Hd)	4.244	4.379	4.48	4.287
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	821	802	839
Service Time	2.254	2.392	2.493	2.298
HCM Lane V/C Ratio	0.116	0.08	0.097	0.107
HCM Control Delay	7.8	7.8	8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	163	0	81	0	1057	121	64	2141	0
Future Volume (vph)	1	0	0	163	0	81	0	1057	121	64	2141	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.98			0.99		1.00	1.00	
Flpb, ped/bikes		0.99		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.98		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1785		1666	1560			3415		1718	3539	
Flt Permitted		0.67		0.76	1.00			1.00		0.15	1.00	
Satd. Flow (perm)		1251		1328	1560			3415		269	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1	0	0	170	0	84	0	1101	126	67	2230	0
RTOR Reduction (vph)	0	0	0	0	71	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1	0	170	13	0	0	1220	0	67	2230	0
Confl. Peds. (#/hr)	9		15	15		9	13		21	21		13
Confl. Bikes (#/hr)			3						6			17
Heavy Vehicles (%)	0%	0%	0%	6%	0%	1%	0%	3%	6%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		18.5		18.5	18.5			69.5		89.5	93.5	
Effective Green, g (s)		18.5		18.5	18.5			69.5		89.5	93.5	
Actuated g/C Ratio		0.15		0.15	0.15			0.58		0.75	0.78	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		192		204	240			1977		442	2757	
v/s Ratio Prot					0.01			0.36		0.03	c0.63	
v/s Ratio Perm		0.00		c0.13						0.09		
v/c Ratio		0.01		0.83	0.05			0.62		0.15	0.81	
Uniform Delay, d1		43.0		49.3	43.3			16.5		14.9	7.9	
Progression Factor		1.00		1.00	1.00			1.00		0.75	0.70	
Incremental Delay, d2		0.0		23.9	0.1			1.5		0.1	1.8	
Delay (s)		43.0		73.1	43.4			18.0		11.3	7.4	
Level of Service		D		E	D			B		B	A	
Approach Delay (s)		43.0			63.3			18.0			7.5	
Approach LOS		D			E			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	20	93	69	0	16	131	34	0	61	59	15	0	25	72	61
Future Vol, veh/h	0	20	93	69	0	16	131	34	0	61	59	15	0	25	72	61
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	5	12	3	2	7	5	6	2	2	0	0	2	0	1	3
Mvmt Flow	0	22	104	78	0	18	147	38	0	69	66	17	0	28	81	69
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	10.1	9.7	9.6
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	11%	9%	16%
Vol Thru, %	44%	51%	72%	46%
Vol Right, %	11%	38%	19%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	182	181	158
LT Vol	61	20	16	25
Through Vol	59	93	131	72
RT Vol	15	69	34	61
Lane Flow Rate	152	204	203	178
Geometry Grp	1	1	1	1
Degree of Util (X)	0.218	0.276	0.283	0.242
Departure Headway (Hd)	5.182	4.861	5.001	4.899
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	684	730	710	724
Service Time	3.279	2.95	3.089	2.99
HCM Lane V/C Ratio	0.222	0.279	0.286	0.246
HCM Control Delay	9.7	9.8	10.1	9.6
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.8	1.1	1.2	0.9

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	0	0	180	1	4
Future Vol, veh/h	133	0	0	180	1	4
Conflicting Peds, #/hr	0	17	17	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	317	0	0	429	2	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	334	0	763	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	429	-
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	-	-	1237	-	375	712
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	661	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1237	-	369	700
Mov Cap-2 Maneuver	-	-	-	-	369	-
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	661	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	594	-	-	1237	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	11.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	137	0	1	179	0	1	0	0	0	0	0
Future Vol, veh/h	0	137	0	1	179	0	1	0	0	0	0	0
Conflicting Peds, #/hr	0	0	20	20	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	274	0	2	358	0	2	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	358	0	0	294	0	0	636	656	358
Stage 1	-	-	-	-	-	-	362	362	-
Stage 2	-	-	-	-	-	-	274	294	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1212	-	-	1279	-	-	445	388	691
Stage 1	-	-	-	-	-	-	709	629	-
Stage 2	-	-	-	-	-	-	777	673	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1212	-	-	1279	-	-	444	0	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	444	0	-
Stage 1	-	-	-	-	-	-	708	0	-
Stage 2	-	-	-	-	-	-	777	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1212	-	-	1279	-	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	-	-
HCM Control Delay (s)	0	-	-	7.8	0	-	0
HCM Lane LOS	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

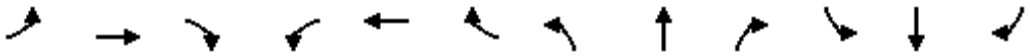
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	134	3	0	180	0	0
Future Vol, veh/h	134	3	0	180	0	0
Conflicting Peds, #/hr	0	20	20	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	353	8	0	474	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	381	0	851	377
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	474	-
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	-	-	1189	-	333	674
Stage 1	-	-	-	-	698	-
Stage 2	-	-	-	-	630	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1189	-	327	661
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	630	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1189	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	102	14	7	132	26	19	24	8	17	28	29
Future Volume (vph)	18	102	14	7	132	26	19	24	8	17	28	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.95	
Flpb, ped/bikes		1.00			1.00			0.97			0.99	
Frt		0.99			0.98			0.98			0.95	
Flt Protected		0.99			1.00			0.98			0.99	
Satd. Flow (prot)		1742			1797			1574			1470	
Flt Permitted		0.97			0.99			0.91			0.95	
Satd. Flow (perm)		1694			1788			1454			1408	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	20	116	16	8	150	30	22	27	9	19	32	33
RTOR Reduction (vph)	0	3	0	0	5	0	0	6	0	0	21	0
Lane Group Flow (vph)	0	149	0	0	183	0	0	52	0	0	63	0
Confl. Peds. (#/hr)	11		29	29		11	73		26	26		73
Confl. Bikes (#/hr)			1			3						1
Heavy Vehicles (%)	35%	0%	12%	0%	3%	0%	8%	17%	0%	6%	11%	22%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		28.2			28.2			11.8			11.8	
Effective Green, g (s)		28.2			28.2			11.8			11.8	
Actuated g/C Ratio		0.61			0.61			0.26			0.26	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1034			1091			371			359	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.10			0.04			c0.04	
v/c Ratio		0.14			0.17			0.14			0.18	
Uniform Delay, d1		3.8			3.9			13.3			13.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.1			0.1	
Delay (s)		3.9			3.9			13.3			13.5	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			3.9			13.3			13.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	148	10	39	146	11	34
Future Vol, veh/h	148	10	39	146	11	34
Conflicting Peds, #/hr	0	13	13	0	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	3	9	10
Mvmt Flow	161	11	42	159	12	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	185	0	424	182
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.1	-	6.49	6.3
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.2	-	3.581	3.39
Pot Cap-1 Maneuver	-	-	1402	-	574	840
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1398	-	547	827
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	753	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1398	-
HCM Lane V/C Ratio	0.067	-	-	0.03	-
HCM Control Delay (s)	10.2	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	4	122	0	104	48	0	53	11
Future Vol, veh/h	0	4	122	0	104	48	0	53	11
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Heavy Vehicles, %	2	0	1	2	1	10	2	7	0
Mvmt Flow	0	5	144	0	122	56	0	62	13
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.7	8.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	68%	3%	0%
Vol Thru, %	32%	0%	83%
Vol Right, %	0%	97%	17%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	152	126	64
LT Vol	104	4	0
Through Vol	48	0	53
RT Vol	0	122	11
Lane Flow Rate	179	148	75
Geometry Grp	1	1	1
Degree of Util (X)	0.217	0.161	0.093
Departure Headway (Hd)	4.374	3.909	4.429
Convergence, Y/N	Yes	Yes	Yes
Cap	810	922	814
Service Time	2.456	1.914	2.429
HCM Lane V/C Ratio	0.221	0.161	0.092
HCM Control Delay	8.7	7.7	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.6	0.3

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	182	124	29	26	6
Future Vol, veh/h	15	182	124	29	26	6
Conflicting Peds, #/hr	12	0	0	12	48	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	4	4	25	0	0
Mvmt Flow	17	204	139	33	29	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	184	0	-	0	454	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	286	-
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	1403	-	-	-	568	881
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1403	-	-	-	547	871
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	748	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1403	-	-	-	588
HCM Lane V/C Ratio	0.012	-	-	-	0.061
HCM Control Delay (s)	7.6	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Future Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	11	4	2	13	5	0	2	24	0	24
Mvmt Flow	0	9	200	32	0	39	254	11	0	32	1	22
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

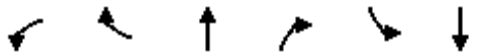
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	10.5	9
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	4%	13%	44%
Vol Thru, %	2%	83%	83%	17%
Vol Right, %	40%	13%	4%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	190	241	18
LT Vol	25	7	31	8
Through Vol	1	158	201	3
RT Vol	17	25	9	7
Lane Flow Rate	54	241	305	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.292	0.388	0.032
Departure Headway (Hd)	5.44	4.368	4.58	5.061
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	823	787	705
Service Time	3.485	2.393	2.605	3.11
HCM Lane V/C Ratio	0.082	0.293	0.388	0.033
HCM Control Delay	9	9.2	10.5	8.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	1.2	1.8	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	8	3	7
Future Vol, veh/h	0	8	3	7
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	10	4	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	19	1722	58	0	786
Future Volume (vph)	26	19	1722	58	0	786
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1671	1503	3486			3471
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1671	1503	3486			3471
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	28	20	1852	62	0	845
RTOR Reduction (vph)	0	19	1	0	0	0
Lane Group Flow (vph)	28	1	1913	0	0	845
Confl. Peds. (#/hr)	3	1		3	3	
Confl. Bikes (#/hr)				17		
Heavy Vehicles (%)	8%	6%	3%	2%	0%	4%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	4.8	4.8	107.2			107.2
Effective Green, g (s)	4.8	4.8	107.2			107.2
Actuated g/C Ratio	0.04	0.04	0.89			0.89
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	66	60	3114			3100
v/s Ratio Prot	c0.02		c0.55			0.24
v/s Ratio Perm		0.00				
v/c Ratio	0.42	0.01	0.61			0.27
Uniform Delay, d1	56.3	55.3	1.5			0.9
Progression Factor	1.00	1.00	3.27			1.00
Incremental Delay, d2	2.5	0.1	0.6			0.2
Delay (s)	58.8	55.4	5.6			1.1
Level of Service	E	E	A			A
Approach Delay (s)	57.4		5.6			1.1
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	8	45	2	0	6	47	14	0	2	57	22	0	21	28	4
Future Vol, veh/h	0	8	45	2	0	6	47	14	0	2	57	22	0	21	28	4
Peak Hour Factor	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74
Heavy Vehicles, %	2	0	2	0	2	0	9	8	2	0	0	0	2	0	11	0
Mvmt Flow	0	11	61	3	0	8	64	19	0	3	77	30	0	28	38	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	15%	9%	40%
Vol Thru, %	70%	82%	70%	53%
Vol Right, %	27%	4%	21%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	55	67	53
LT Vol	2	8	6	21
Through Vol	57	45	47	28
RT Vol	22	2	14	4
Lane Flow Rate	109	74	91	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.128	0.091	0.108	0.088
Departure Headway (Hd)	4.195	4.41	4.279	4.423
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	815	840	813
Service Time	2.206	2.424	2.293	2.436
HCM Lane V/C Ratio	0.127	0.091	0.108	0.089
HCM Control Delay	7.8	7.9	7.8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.4	0.3

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	19	59	1	0	16	66	26	0	1	29	10	0	19	30	10
Future Vol, veh/h	0	19	59	1	0	16	66	26	0	1	29	10	0	19	30	10
Peak Hour Factor	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82
Heavy Vehicles, %	2	0	2	0	2	13	5	8	2	0	32	0	2	0	34	20
Mvmt Flow	0	23	72	1	0	20	80	32	0	1	35	12	0	23	37	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.2	7.6	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	24%	15%	32%
Vol Thru, %	72%	75%	61%	51%
Vol Right, %	25%	1%	24%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	79	108	59
LT Vol	1	19	16	19
Through Vol	29	59	66	30
RT Vol	10	1	26	10
Lane Flow Rate	49	96	132	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.059	0.117	0.161	0.089
Departure Headway (Hd)	4.356	4.359	4.399	4.436
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	825	821	809
Service Time	2.373	2.372	2.399	2.452
HCM Lane V/C Ratio	0.059	0.116	0.161	0.089
HCM Control Delay	7.6	8	8.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.6	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	0	79	0	81	0	1685	149	77	714	0
Future Volume (vph)	3	0	0	79	0	81	0	1685	149	77	714	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.99		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1356		1638	1547			3442		1787	3438	
Flt Permitted		0.63		0.76	1.00			1.00		0.06	1.00	
Satd. Flow (perm)		895		1303	1547			3442		120	3438	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	3	0	0	84	0	86	0	1793	159	82	760	0
RTOR Reduction (vph)	0	0	0	0	77	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	3	0	84	9	0	0	1948	0	82	760	0
Confl. Peds. (#/hr)	1		14	14		1	3		1	1		3
Confl. Bikes (#/hr)			3						17			3
Heavy Vehicles (%)	33%	0%	0%	8%	0%	3%	0%	3%	7%	1%	5%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		13.0		13.0	13.0			89.2		95.0	99.0	
Effective Green, g (s)		13.0		13.0	13.0			89.2		95.0	99.0	
Actuated g/C Ratio		0.11		0.11	0.11			0.74		0.79	0.82	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		96		141	167			2558		175	2836	
v/s Ratio Prot					0.01			c0.57		c0.02	0.22	
v/s Ratio Perm		0.00		c0.06						0.35		
v/c Ratio		0.03		0.60	0.06			0.76		0.47	0.27	
Uniform Delay, d1		47.9		51.0	48.0			9.1		26.6	2.4	
Progression Factor		1.00		1.00	1.00			1.00		0.93	0.96	
Incremental Delay, d2		0.1		5.5	0.1			2.2		1.1	0.2	
Delay (s)		48.0		56.5	48.1			11.3		26.0	2.5	
Level of Service		D		E	D			B		C	A	
Approach Delay (s)		48.0			52.3			11.3			4.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	0	2	0	0	15	84	12	0	71	58	7	0	9	24	7
Future Vol, veh/h	0	0	2	0	0	15	84	12	0	71	58	7	0	9	24	7
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	0	11	0	2	0	11	0	2	0	2	0	2	11	9	0
Mvmt Flow	0	0	2	0	0	18	100	14	0	85	69	8	0	11	29	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.7	8.2	8.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	0%	14%	23%
Vol Thru, %	43%	100%	76%	60%
Vol Right, %	5%	0%	11%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	2	111	40
LT Vol	71	0	15	9
Through Vol	58	2	84	24
RT Vol	7	0	12	7
Lane Flow Rate	162	2	132	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.195	0.003	0.159	0.06
Departure Headway (Hd)	4.345	4.716	4.345	4.509
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	831	761	829	797
Service Time	2.345	2.732	2.357	2.521
HCM Lane V/C Ratio	0.195	0.003	0.159	0.06
HCM Control Delay	8.4	7.7	8.2	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0	0.6	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	1	0	111	0	0
Future Vol, veh/h	115	1	0	111	0	0
Conflicting Peds, #/hr	0	14	14	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	460	4	0	444	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	478	0	920	476
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	444	-
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	-	-	1095	-	303	593
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1095	-	299	585
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1095	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	114	1	0	111	0	0	0	0	0	0	0
Future Vol, veh/h	0	114	1	0	111	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	21	21	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	25	25	25	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	456	4	0	444	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	444	0	0	481	0	0	902	925	444
Stage 1	-	-	-	-	-	-	444	444	-
Stage 2	-	-	-	-	-	-	458	481	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1127	-	-	1092	-	-	311	271	618
Stage 1	-	-	-	-	-	-	651	579	-
Stage 2	-	-	-	-	-	-	641	557	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1127	-	-	1092	-	-	311	0	618
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	0	-
Stage 1	-	-	-	-	-	-	651	0	-
Stage 2	-	-	-	-	-	-	641	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1127	-	-	1092	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-	-	0
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

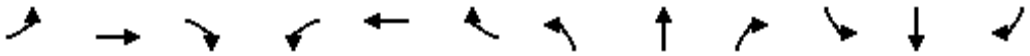
Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	1	0	111	0	0
Future Vol, veh/h	113	1	0	111	0	0
Conflicting Peds, #/hr	0	21	21	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	452	4	0	444	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	477	0	919	475
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	444	-
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	-	-	1096	-	304	594
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1096	-	298	582
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1096	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	98	4	10	78	8	12	17	10	5	7	21
Future Volume (vph)	11	98	4	10	78	8	12	17	10	5	7	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.94	
Flpb, ped/bikes		1.00			1.00			0.98			1.00	
Frt		1.00			0.99			0.97			0.91	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1701			1837			1539			1292	
Flt Permitted		0.98			0.98			0.93			0.97	
Satd. Flow (perm)		1670			1801			1454			1263	
Peak-hour factor, PHF	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Adj. Flow (vph)	18	158	6	16	126	13	19	27	16	8	11	34
RTOR Reduction (vph)	0	1	0	0	2	0	0	11	0	0	25	0
Lane Group Flow (vph)	0	181	0	0	153	0	0	51	0	0	28	0
Confl. Peds. (#/hr)	21		19	19		21	48		16	16		48
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	50%	6%	0%	10%	0%	0%	11%	12%	20%	0%	29%	30%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		28.9			28.9			11.8			11.8	
Effective Green, g (s)		28.9			28.9			11.8			11.8	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1029			1109			365			317	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.08			c0.03			0.02	
v/c Ratio		0.18			0.14			0.14			0.09	
Uniform Delay, d1		3.9			3.8			13.6			13.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.1			0.0	
Delay (s)		3.9			3.8			13.7			13.5	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			3.8			13.7			13.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	46.9	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	92	24	126	260	52	93
Future Vol, veh/h	92	24	126	260	52	93
Conflicting Peds, #/hr	0	24	24	0	5	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	22	11	3	0	8
Mvmt Flow	110	29	150	310	62	111

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	162	0	763	160
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	-	-	4.21	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.372
Pot Cap-1 Maneuver	-	-	1364	-	375	870
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	543	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1348	-	316	840
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	468	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	527	-	-	1348	-
HCM Lane V/C Ratio	0.328	-	-	0.111	-
HCM Control Delay (s)	15.1	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.4	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	15	80	0	119	45	0	22	4
Future Vol, veh/h	0	15	80	0	119	45	0	22	4
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	7	0	2	0	0	2	0	0
Mvmt Flow	0	17	92	0	137	52	0	25	5
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.6	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	73%	16%	0%
Vol Thru, %	27%	0%	85%
Vol Right, %	0%	84%	15%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	164	95	26
LT Vol	119	15	0
Through Vol	45	0	22
RT Vol	0	80	4
Lane Flow Rate	189	109	30
Geometry Grp	1	1	1
Degree of Util (X)	0.223	0.123	0.035
Departure Headway (Hd)	4.26	4.041	4.247
Convergence, Y/N	Yes	Yes	Yes
Cap	837	892	848
Service Time	2.319	2.042	2.247
HCM Lane V/C Ratio	0.226	0.122	0.035
HCM Control Delay	8.6	7.6	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.4	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	103	162	108	49	10
Future Vol, veh/h	30	103	162	108	49	10
Conflicting Peds, #/hr	5	0	0	5	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	14	16	3	17	21	20
Mvmt Flow	36	124	195	130	59	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	330	0	-	0	464	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.24	-	-	-	6.61	6.4
Critical Hdwy Stg 1	-	-	-	-	5.61	-
Critical Hdwy Stg 2	-	-	-	-	5.61	-
Follow-up Hdwy	2.326	-	-	-	3.689	3.48
Pot Cap-1 Maneuver	1165	-	-	-	523	732
Stage 1	-	-	-	-	737	-
Stage 2	-	-	-	-	791	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1165	-	-	-	501	729
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	761	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	529
HCM Lane V/C Ratio	0.031	-	-	-	0.134
HCM Control Delay (s)	8.2	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Appendix F 2019 Total Traffic Operations

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	27	242	14	0	28	176	19	0	29	14	57
Future Vol, veh/h	0	27	242	14	0	28	176	19	0	29	14	57
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	6	15	2	11	7	0	2	25	0	5
Mvmt Flow	0	31	275	16	0	32	200	22	0	33	16	65
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

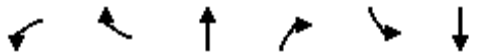
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.1	10.6	9.7
HCM LOS	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	10%	13%	38%
Vol Thru, %	14%	86%	79%	28%
Vol Right, %	57%	5%	9%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	283	223	60
LT Vol	29	27	28	23
Through Vol	14	242	176	17
RT Vol	57	14	19	20
Lane Flow Rate	114	322	253	68
Geometry Grp	1	1	1	1
Degree of Util (X)	0.173	0.419	0.347	0.102
Departure Headway (Hd)	5.482	4.685	4.923	5.402
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	648	762	725	667
Service Time	3.577	2.753	2.995	3.402
HCM Lane V/C Ratio	0.176	0.423	0.349	0.102
HCM Control Delay	9.7	11.1	10.6	9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.6	2.1	1.6	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	23	17	20
Future Vol, veh/h	0	23	17	20
Peak Hour Factor	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	26	19	23
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	34	1109	35	0	2208
Future Volume (vph)	45	34	1109	35	0	2208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1719	1547	3519			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1719	1547	3519			3539
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	47	35	1155	36	0	2300
RTOR Reduction (vph)	0	33	1	0	0	0
Lane Group Flow (vph)	47	2	1190	0	0	2300
Confl. Peds. (#/hr)	4	1		8	8	
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	5%	3%	2%	3%	0%	2%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	7.0	7.0	105.0			105.0
Effective Green, g (s)	7.0	7.0	105.0			105.0
Actuated g/C Ratio	0.06	0.06	0.88			0.88
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	100	90	3079			3096
v/s Ratio Prot	c0.03		0.34			c0.65
v/s Ratio Perm		0.00				
v/c Ratio	0.47	0.02	0.39			0.74
Uniform Delay, d1	54.7	53.3	1.4			2.7
Progression Factor	1.00	1.00	0.30			1.00
Incremental Delay, d2	2.0	0.1	0.3			1.7
Delay (s)	56.7	53.3	0.8			4.3
Level of Service	E	D	A			A
Approach Delay (s)	55.3		0.8			4.3
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	2	30	5	0	16	53	18	0	8	62	9	0	23	119	20
Future Vol, veh/h	0	2	30	5	0	16	53	18	0	8	62	9	0	23	119	20
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	50	0	0	2	0	2	6	2	12	2	11	2	0	1	5
Mvmt Flow	0	2	34	6	0	18	60	20	0	9	70	10	0	26	135	23
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.1	8.2	8.5
HCM LOS	A	A	A	A

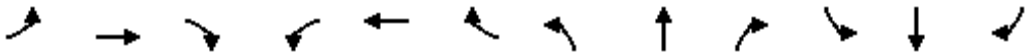
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	5%	18%	14%
Vol Thru, %	78%	81%	61%	73%
Vol Right, %	11%	14%	21%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	37	87	162
LT Vol	8	2	16	23
Through Vol	62	30	53	119
RT Vol	9	5	18	20
Lane Flow Rate	90	42	99	184
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.063	0.123	0.22
Departure Headway (Hd)	4.6	5.422	4.492	4.304
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	661	799	836
Service Time	2.619	3.448	2.514	2.319
HCM Lane V/C Ratio	0.115	0.064	0.124	0.22
HCM Control Delay	8.2	8.8	8.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.4	0.8

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	10	47	6	0	9	51	15	0	11	66	17	0	15	59	12
Future Vol, veh/h	0	10	47	6	0	9	51	15	0	11	66	17	0	15	59	12
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	0	2	0	2	11	0	7	2	0	19	0	2	0	19	25
Mvmt Flow	0	10	49	6	0	9	53	16	0	11	69	18	0	16	61	13
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8	7.8	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	16%	12%	17%
Vol Thru, %	70%	75%	68%	69%
Vol Right, %	18%	10%	20%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	63	75	86
LT Vol	11	10	9	15
Through Vol	66	47	51	59
RT Vol	17	6	15	12
Lane Flow Rate	98	66	78	90
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.08	0.097	0.107
Departure Headway (Hd)	4.244	4.379	4.48	4.287
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	821	802	839
Service Time	2.254	2.392	2.493	2.298
HCM Lane V/C Ratio	0.116	0.08	0.097	0.107
HCM Control Delay	7.8	7.8	8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	0.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	173	0	95	0	1057	136	85	2141	0
Future Volume (vph)	1	0	0	173	0	95	0	1057	136	85	2141	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.98			0.99		1.00	1.00	
Flpb, ped/bikes		0.99		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.98		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1786		1666	1560			3404		1719	3539	
Flt Permitted		0.62		0.76	1.00			1.00		0.11	1.00	
Satd. Flow (perm)		1174		1328	1560			3404		196	3539	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1	0	0	180	0	99	0	1101	142	89	2230	0
RTOR Reduction (vph)	0	0	0	0	83	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	1	0	180	16	0	0	1233	0	89	2230	0
Confl. Peds. (#/hr)	9		15	15		9	13		21	21		13
Confl. Bikes (#/hr)			3						6			17
Heavy Vehicles (%)	0%	0%	0%	6%	0%	1%	0%	3%	6%	5%	2%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		19.0		19.0	19.0			59.2		89.0	93.0	
Effective Green, g (s)		19.0		19.0	19.0			59.2		89.0	93.0	
Actuated g/C Ratio		0.16		0.16	0.16			0.49		0.74	0.78	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		185		210	247			1679		523	2742	
v/s Ratio Prot					0.01			0.36		0.04	c0.63	
v/s Ratio Perm		0.00		c0.14						0.08		
v/c Ratio		0.01		0.86	0.06			0.73		0.17	0.81	
Uniform Delay, d1		42.5		49.2	42.9			24.2		20.3	8.2	
Progression Factor		1.00		1.00	1.00			1.00		0.86	0.87	
Incremental Delay, d2		0.0		27.1	0.1			2.9		0.1	2.7	
Delay (s)		42.5		76.3	43.0			27.0		17.5	9.9	
Level of Service		D		E	D			C		B	A	
Approach Delay (s)		42.5			64.5			27.0			10.2	
Approach LOS		D			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	20	129	69	0	16	155	34	0	61	59	15	0	25	72	61
Future Vol, veh/h	0	20	129	69	0	16	155	34	0	61	59	15	0	25	72	61
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	5	12	3	2	7	5	6	2	2	0	0	2	0	1	3
Mvmt Flow	0	22	145	78	0	18	174	38	0	69	66	17	0	28	81	69
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	10.8	10.2	10
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	9%	8%	16%
Vol Thru, %	44%	59%	76%	46%
Vol Right, %	11%	32%	17%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	218	205	158
LT Vol	61	20	16	25
Through Vol	59	129	155	72
RT Vol	15	69	34	61
Lane Flow Rate	152	245	230	178
Geometry Grp	1	1	1	1
Degree of Util (X)	0.231	0.344	0.333	0.256
Departure Headway (Hd)	5.489	5.063	5.198	5.198
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	710	691	691
Service Time	3.523	3.093	3.228	3.231
HCM Lane V/C Ratio	0.232	0.345	0.333	0.258
HCM Control Delay	10.2	10.7	10.8	10
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	0.9	1.5	1.5	1

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	169	0	0	204	0	0
Future Vol, veh/h	169	0	0	204	0	0
Conflicting Peds, #/hr	0	17	17	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	42	42	42	42	42	42
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	402	0	0	486	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	419	0	905	419
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	486	-
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	-	-	1151	-	309	638
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1151	-	304	628
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1151	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	173	0	0	203	0	0	0	0	0	0	0
Future Vol, veh/h	0	173	0	0	203	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	20	20	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	50	50	50	50	50	50	50	50	50
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	346	0	0	406	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	406	0	0	366	0	0	752	772	406
Stage 1	-	-	-	-	-	-	406	406	-
Stage 2	-	-	-	-	-	-	346	366	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1164	-	-	1204	-	-	381	333	649
Stage 1	-	-	-	-	-	-	677	601	-
Stage 2	-	-	-	-	-	-	721	626	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1164	-	-	1204	-	-	381	0	649
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	0	-
Stage 1	-	-	-	-	-	-	677	0	-
Stage 2	-	-	-	-	-	-	721	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1164	-	-	1204	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-	-	0
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

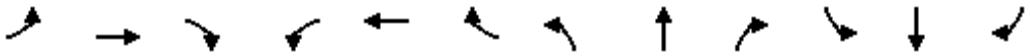
Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	134	28	12	180	16	6
Future Vol, veh/h	134	28	12	180	16	6
Conflicting Peds, #/hr	0	20	20	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	38	38	38	38	38	38
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	353	74	32	474	42	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	446	0	946	409
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	537	-
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	-	-	1125	-	293	647
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1125	-	276	635
Mov Cap-2 Maneuver	-	-	-	-	276	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	567	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	326	-	-	1125	-
HCM Lane V/C Ratio	0.178	-	-	0.028	-
HCM Control Delay (s)	18.4	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	109	17	7	142	26	24	24	8	17	28	29
Future Volume (vph)	18	109	17	7	142	26	24	24	8	17	28	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.95	
Flpb, ped/bikes		1.00			1.00			0.96			0.99	
Frt		0.98			0.98			0.98			0.95	
Flt Protected		0.99			1.00			0.98			0.99	
Satd. Flow (prot)		1742			1800			1570			1470	
Flt Permitted		0.97			0.99			0.89			0.95	
Satd. Flow (perm)		1695			1790			1427			1407	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	20	124	19	8	161	30	27	27	9	19	32	33
RTOR Reduction (vph)	0	4	0	0	5	0	0	5	0	0	21	0
Lane Group Flow (vph)	0	159	0	0	194	0	0	58	0	0	63	0
Confl. Peds. (#/hr)	11		29	29		11	73		26	26		73
Confl. Bikes (#/hr)			1			3						1
Heavy Vehicles (%)	35%	0%	12%	0%	3%	0%	8%	17%	0%	6%	11%	22%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		28.2			28.2			11.8			11.8	
Effective Green, g (s)		28.2			28.2			11.8			11.8	
Actuated g/C Ratio		0.61			0.61			0.26			0.26	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1034			1092			364			359	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.11			0.04			c0.04	
v/c Ratio		0.15			0.18			0.16			0.18	
Uniform Delay, d1		3.9			3.9			13.3			13.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.1			0.1	
Delay (s)		3.9			4.0			13.4			13.5	
Level of Service		A			A			B			B	
Approach Delay (s)		3.9			4.0			13.4			13.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	46.2	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	10	39	156	11	34
Future Vol, veh/h	158	10	39	156	11	34
Conflicting Peds, #/hr	0	13	13	0	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	3	9	10
Mvmt Flow	172	11	42	170	12	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	196	0	446	193
Stage 1	-	-	-	-	190	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	-	-	4.1	-	6.49	6.3
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.2	-	3.581	3.39
Pot Cap-1 Maneuver	-	-	1389	-	557	828
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1385	-	531	815
Mov Cap-2 Maneuver	-	-	-	-	531	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	721	-	-	1385	-
HCM Lane V/C Ratio	0.068	-	-	0.031	-
HCM Control Delay (s)	10.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	4	122	0	104	53	0	56	11
Future Vol, veh/h	0	4	122	0	104	53	0	56	11
Peak Hour Factor	0.92	0.85	0.85	0.92	0.85	0.85	0.92	0.85	0.85
Heavy Vehicles, %	2	0	1	2	1	10	2	7	0
Mvmt Flow	0	5	144	0	122	62	0	66	13
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.7	8.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	66%	3%	0%
Vol Thru, %	34%	0%	84%
Vol Right, %	0%	97%	16%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	157	126	67
LT Vol	104	4	0
Through Vol	53	0	56
RT Vol	0	122	11
Lane Flow Rate	185	148	79
Geometry Grp	1	1	1
Degree of Util (X)	0.224	0.162	0.097
Departure Headway (Hd)	4.373	3.931	4.428
Convergence, Y/N	Yes	Yes	Yes
Cap	811	918	812
Service Time	2.457	1.935	2.442
HCM Lane V/C Ratio	0.228	0.161	0.097
HCM Control Delay	8.7	7.7	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.6	0.3

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	185	129	29	26	6
Future Vol, veh/h	15	185	129	29	26	6
Conflicting Peds, #/hr	12	0	0	12	48	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	4	4	25	0	0
Mvmt Flow	17	208	145	33	29	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	190	0	-	0	463	173
Stage 1	-	-	-	-	173	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	4.1	-	-	-	7.1	6.2
Critical Hdwy Stg 1	-	-	-	-	6.1	-
Critical Hdwy Stg 2	-	-	-	-	6.1	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1396	-	-	-	513	876
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	722	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1396	-	-	-	479	866
Mov Cap-2 Maneuver	-	-	-	-	479	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	679	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1396	-	-	-	523
HCM Lane V/C Ratio	0.012	-	-	-	0.069
HCM Control Delay (s)	7.6	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Future Vol, veh/h	0	7	158	25	0	31	201	9	0	25	1	17
Peak Hour Factor	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	11	4	2	13	5	0	2	24	0	24
Mvmt Flow	0	9	200	32	0	39	254	11	0	32	1	22
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

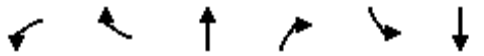
Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	10.5	9
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	58%	4%	13%	44%
Vol Thru, %	2%	83%	83%	17%
Vol Right, %	40%	13%	4%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	190	241	18
LT Vol	25	7	31	8
Through Vol	1	158	201	3
RT Vol	17	25	9	7
Lane Flow Rate	54	241	305	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.292	0.388	0.032
Departure Headway (Hd)	5.44	4.368	4.58	5.061
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	657	823	787	705
Service Time	3.485	2.393	2.605	3.11
HCM Lane V/C Ratio	0.082	0.293	0.388	0.033
HCM Control Delay	9	9.2	10.5	8.3
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	1.2	1.8	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Vol, veh/h	0	8	3	7
Future Vol, veh/h	0	8	3	7
Peak Hour Factor	0.92	0.79	0.79	0.79
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	10	4	9
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	26	19	1739	58	0	792
Future Volume (vph)	26	19	1739	58	0	792
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frpb, ped/bikes	1.00	0.99	1.00			1.00
Flpb, ped/bikes	1.00	1.00	1.00			1.00
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1671	1503	3486			3471
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1671	1503	3486			3471
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	28	20	1870	62	0	852
RTOR Reduction (vph)	0	19	1	0	0	0
Lane Group Flow (vph)	28	1	1931	0	0	852
Confl. Peds. (#/hr)	3	1		3	3	
Confl. Bikes (#/hr)				17		
Heavy Vehicles (%)	8%	6%	3%	2%	0%	4%
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6
Permitted Phases		4				
Actuated Green, G (s)	4.8	4.8	107.2			107.2
Effective Green, g (s)	4.8	4.8	107.2			107.2
Actuated g/C Ratio	0.04	0.04	0.89			0.89
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	2.3	2.3	6.1			6.1
Lane Grp Cap (vph)	66	60	3114			3100
v/s Ratio Prot	c0.02		c0.55			0.25
v/s Ratio Perm		0.00				
v/c Ratio	0.42	0.01	0.62			0.27
Uniform Delay, d1	56.3	55.3	1.5			0.9
Progression Factor	1.00	1.00	3.41			1.00
Incremental Delay, d2	2.5	0.1	0.6			0.2
Delay (s)	58.8	55.4	5.8			1.1
Level of Service	E	E	A			A
Approach Delay (s)	57.4		5.8			1.1
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations																
Traffic Vol, veh/h	0	8	45	2	0	6	47	14	0	2	57	22	0	21	28	4
Future Vol, veh/h	0	8	45	2	0	6	47	14	0	2	57	22	0	21	28	4
Peak Hour Factor	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74	0.92	0.74	0.74	0.74
Heavy Vehicles, %	2	0	2	0	2	0	9	8	2	0	0	0	2	0	11	0
Mvmt Flow	0	11	61	3	0	8	64	19	0	3	77	30	0	28	38	5
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.8	7.8	7.9
HCM LOS	A	A	A	A

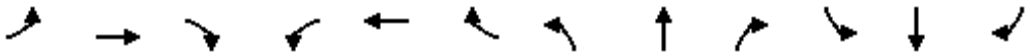
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	15%	9%	40%
Vol Thru, %	70%	82%	70%	53%
Vol Right, %	27%	4%	21%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	81	55	67	53
LT Vol	2	8	6	21
Through Vol	57	45	47	28
RT Vol	22	2	14	4
Lane Flow Rate	109	74	91	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.128	0.091	0.108	0.088
Departure Headway (Hd)	4.195	4.41	4.279	4.423
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	815	840	813
Service Time	2.206	2.424	2.293	2.436
HCM Lane V/C Ratio	0.127	0.091	0.108	0.089
HCM Control Delay	7.8	7.9	7.8	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.4	0.3

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	19	59	1	0	16	66	26	0	1	29	10	0	19	30	10
Future Vol, veh/h	0	19	59	1	0	16	66	26	0	1	29	10	0	19	30	10
Peak Hour Factor	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82	0.92	0.82	0.82	0.82
Heavy Vehicles, %	2	0	2	0	2	13	5	8	2	0	32	0	2	0	34	20
Mvmt Flow	0	23	72	1	0	20	80	32	0	1	35	12	0	23	37	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.2	7.6	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	24%	15%	32%
Vol Thru, %	72%	75%	61%	51%
Vol Right, %	25%	1%	24%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	79	108	59
LT Vol	1	19	16	19
Through Vol	29	59	66	30
RT Vol	10	1	26	10
Lane Flow Rate	49	96	132	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.059	0.117	0.161	0.089
Departure Headway (Hd)	4.356	4.359	4.399	4.436
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	825	821	809
Service Time	2.373	2.372	2.399	2.452
HCM Lane V/C Ratio	0.059	0.116	0.161	0.089
HCM Control Delay	7.6	8	8.2	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.6	0.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	0	92	0	98	0	1685	153	83	714	0
Future Volume (vph)	3	0	0	92	0	98	0	1685	153	83	714	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95		1.00	0.95	
Frpb, ped/bikes		1.00		1.00	0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00		0.98	1.00			1.00		1.00	1.00	
Frt		1.00		1.00	0.85			0.99		1.00	1.00	
Flt Protected		0.95		0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1356		1638	1547			3441		1787	3438	
Flt Permitted		0.58		0.76	1.00			1.00		0.06	1.00	
Satd. Flow (perm)		821		1303	1547			3441		107	3438	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	3	0	0	98	0	104	0	1793	163	88	760	0
RTOR Reduction (vph)	0	0	0	0	91	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	3	0	98	13	0	0	1951	0	88	760	0
Confl. Peds. (#/hr)	1		14	14		1	3		1	1		3
Confl. Bikes (#/hr)			3						17			3
Heavy Vehicles (%)	33%	0%	0%	8%	0%	3%	0%	3%	7%	1%	5%	0%
Turn Type	Perm	NA		Perm	NA			NA		D.P+P	NA	
Protected Phases		4			8			6		5	2	
Permitted Phases	4			8			6			6		
Actuated Green, G (s)		14.8		14.8	14.8			86.2		93.2	97.2	
Effective Green, g (s)		14.8		14.8	14.8			86.2		93.2	97.2	
Actuated g/C Ratio		0.12		0.12	0.12			0.72		0.78	0.81	
Clearance Time (s)		4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)		2.5		2.5	2.5			6.1		2.3	6.1	
Lane Grp Cap (vph)		101		160	190			2471		181	2784	
v/s Ratio Prot					0.01			c0.57		c0.03	0.22	
v/s Ratio Perm		0.00		c0.08						0.35		
v/c Ratio		0.03		0.61	0.07			0.79		0.49	0.27	
Uniform Delay, d1		46.3		49.9	46.5			11.0		32.2	2.8	
Progression Factor		1.00		1.00	1.00			1.00		0.92	0.96	
Incremental Delay, d2		0.1		5.8	0.1			2.7		1.2	0.2	
Delay (s)		46.4		55.7	46.6			13.7		30.8	2.9	
Level of Service		D		E	D			B		C	A	
Approach Delay (s)		46.4			51.0			13.7			5.8	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations			↕				↕				↕				↕	
Traffic Vol, veh/h	0	0	12	0	0	15	114	12	0	71	58	7	0	9	24	7
Future Vol, veh/h	0	0	12	0	0	15	114	12	0	71	58	7	0	9	24	7
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	0	11	0	2	0	11	0	2	0	2	0	2	11	9	0
Mvmt Flow	0	0	14	0	0	18	136	14	0	85	69	8	0	11	29	8
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.5	8.6	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	52%	0%	11%	23%
Vol Thru, %	43%	100%	81%	60%
Vol Right, %	5%	0%	9%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	12	141	40
LT Vol	71	0	15	9
Through Vol	58	12	114	24
RT Vol	7	0	12	7
Lane Flow Rate	162	14	168	48
Geometry Grp	1	1	1	1
Degree of Util (X)	0.2	0.019	0.204	0.061
Departure Headway (Hd)	4.45	4.767	4.377	4.63
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	752	823	775
Service Time	2.465	2.787	2.391	2.649
HCM Lane V/C Ratio	0.2	0.019	0.204	0.062
HCM Control Delay	8.6	7.9	8.5	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.8	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	0	0	141	0	0
Future Vol, veh/h	125	0	0	141	0	0
Conflicting Peds, #/hr	0	14	14	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	500	0	0	564	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	514	0	1078	514
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	564	-
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	-	-	1062	-	244	564
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1062	-	241	556
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	573	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1062	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	0	124	0	0	141	0	0	0	0	0	0	0
Future Vol, veh/h	0	124	0	0	141	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	21	21	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	25	25	25	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	496	0	0	564	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	564	0	0	517	0	0	1060	1081	564
Stage 1	-	-	-	-	-	-	564	564	-
Stage 2	-	-	-	-	-	-	496	517	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1018	-	-	1059	-	-	250	220	529
Stage 1	-	-	-	-	-	-	573	512	-
Stage 2	-	-	-	-	-	-	616	537	-
Platoon blocked, %		-	-		-	-			
Mov Cap-1 Maneuver	1018	-	-	1059	-	-	250	0	529
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	0	-
Stage 1	-	-	-	-	-	-	573	0	-
Stage 2	-	-	-	-	-	-	616	0	-

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

Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1018	-	-	1059	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-	-	0
HCM Lane LOS	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	7	3	111	28	13
Future Vol, veh/h	113	7	3	111	28	13
Conflicting Peds, #/hr	0	21	21	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	25	25	25	25
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	452	28	12	444	112	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	501	0	955	487
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	468	-
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	-	-	1074	-	289	585
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1074	-	279	573
Mov Cap-2 Maneuver	-	-	-	-	279	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	25.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	333	-	-	1074	-
HCM Lane V/C Ratio	0.492	-	-	0.011	-
HCM Control Delay (s)	25.9	-	-	8.4	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	2.6	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	107	8	10	81	8	13	17	10	5	7	21
Future Volume (vph)	11	107	8	10	81	8	13	17	10	5	7	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.1			3.1			3.1			3.1	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.94	
Flpb, ped/bikes		1.00			1.00			0.98			1.00	
Frt		0.99			0.99			0.97			0.91	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1703			1839			1538			1293	
Flt Permitted		0.98			0.97			0.92			0.97	
Satd. Flow (perm)		1674			1801			1446			1263	
Peak-hour factor, PHF	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Adj. Flow (vph)	18	173	13	16	131	13	21	27	16	8	11	34
RTOR Reduction (vph)	0	2	0	0	2	0	0	10	0	0	25	0
Lane Group Flow (vph)	0	202	0	0	158	0	0	54	0	0	28	0
Confl. Peds. (#/hr)	21		19	19		21	48		16	16		48
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	50%	6%	0%	10%	0%	0%	11%	12%	20%	0%	29%	30%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		28.8			28.8			11.8			11.8	
Effective Green, g (s)		28.8			28.8			11.8			11.8	
Actuated g/C Ratio		0.62			0.62			0.25			0.25	
Clearance Time (s)		3.1			3.1			3.1			3.1	
Vehicle Extension (s)		0.5			0.5			0.5			0.5	
Lane Grp Cap (vph)		1030			1108			364			318	
v/s Ratio Prot												
v/s Ratio Perm		c0.12			0.09			c0.04			0.02	
v/c Ratio		0.20			0.14			0.15			0.09	
Uniform Delay, d1		3.9			3.8			13.6			13.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			0.1			0.0	
Delay (s)		4.0			3.8			13.7			13.4	
Level of Service		A			A			B			B	
Approach Delay (s)		4.0			3.8			13.7			13.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	46.8	Sum of lost time (s)	6.2
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	4.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	95	24	126	263	52	93
Future Vol, veh/h	95	24	126	263	52	93
Conflicting Peds, #/hr	0	24	24	0	5	12
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	6	22	11	3	0	8
Mvmt Flow	113	29	150	313	62	111

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	166	0	769	163
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	618	-
Critical Hdwy	-	-	4.21	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.299	-	3.5	3.372
Pot Cap-1 Maneuver	-	-	1359	-	372	866
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1343	-	313	837
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	467	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.6	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	523	-	-	1343	-
HCM Lane V/C Ratio	0.33	-	-	0.112	-
HCM Control Delay (s)	15.2	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.4	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations									
Traffic Vol, veh/h	0	15	80	0	119	46	0	26	4
Future Vol, veh/h	0	15	80	0	119	46	0	26	4
Peak Hour Factor	0.92	0.87	0.87	0.92	0.87	0.87	0.92	0.87	0.87
Heavy Vehicles, %	2	7	1	2	2	12	2	16	0
Mvmt Flow	0	17	92	0	137	53	0	30	5
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	8.6	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	72%	16%	0%
Vol Thru, %	28%	0%	87%
Vol Right, %	0%	84%	13%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	165	95	30
LT Vol	119	15	0
Through Vol	46	0	26
RT Vol	0	80	4
Lane Flow Rate	190	109	34
Geometry Grp	1	1	1
Degree of Util (X)	0.226	0.123	0.043
Departure Headway (Hd)	4.297	4.061	4.535
Convergence, Y/N	Yes	Yes	Yes
Cap	829	888	794
Service Time	2.359	2.063	2.535
HCM Lane V/C Ratio	0.229	0.123	0.043
HCM Control Delay	8.6	7.6	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.4	0.1

Appendix G Garage Queuing Worksheets

KITTELSON & ASSOCIATES, INC.
610 SW Alder, Suite 700
Portland, Oregon 97205
(503) 228-5230
Fax: (503) 273-8169

Project: Project Galaxy
Project #: 21287
Scenario: Queue Analysis for Security Gate
Analyst: JXH

Entry Gate Operational Parameters

Gate Speed:	1.0	FEET/SECOND	(vertical lift-gate speed)
Gate Height:	10.00	FEET	(total clearance height)
Opening Time:	10.00	SECONDS	(time to fully open/close)
Transponder Use For Entry? No		FOOT RADIUS	
		SECONDS	(advanced opening time due to transponder w/ 10 mph speed)
Pedestrian Presence? Yes	5.00	SECONDS	(additional time delay due to crossing pedestrians)
Net Entering Service Frequency:	15.00	SECONDS	(opening time - transponder time + ped crossing time)
Net Exiting Service Frequency:	15.00	SECONDS	(opening time + ped crossing time)

Queuing Analysis

40	Peak Hour Entering Volume	41	Peak Hour Exiting Volume
240	Peak Hour Entering Service Rate (vph)*	240	Peak Hour Exiting Service Rate (vph)**

Entering Inputs		Exiting Inputs	
0.67	ARRIVAL RATE (VEH/MINUTE)	0.68	ARRIVAL RATE (VEH/MINUTE)
15.00	SERVICE TIME(SECONDS/VEH)	15.00	SERVICE TIME(SECONDS/VEH)
4.00	SERVICE RATE (VEH/MINUTE)	4.00	SERVICE RATE (VEH/MINUTE)
0.17	INTENSITY (Arrival Rate/Service Rate)	0.17	INTENSITY (Arrival Rate/Service Rate)
25	FEET PER VEHICLE	25	FEET PER VEHICLE

Average Queuing Conditions

	Entering Queue		Exiting Queue
	1 gate		1 gate
E(M)	0.03	E(M)	0.04
E(N)	0.20	E(N)	0.21
E(W)	3.00	E(W)	3.09
E(V)	18.00	E(V)	18.09

Where…

E(M) = average number waiting for service
E(N) = average number in the system (includes vehicles being served)
E(W) = Average waiting time (seconds)
E(V) = Average time in the system (seconds) (includes time being served)

Cumulative Queuing Probabilities

Queue	1 gate	Queue	1 gate
0	83%	0	83%
1	97%	1	97%
2	100%	2	100%
3	100%	3	100%
4	100%	4	100%
5	100%	5	100%
6	100%	6	100%
7	100%	7	100%
8	100%	8	100%
9	100%	9	100%
10	100%	10	100%
11	100%	11	100%
12	100%	12	100%
13	100%	13	100%
14	100%	14	100%

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