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Planning Division
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GLOBAL Transportation Engineering

MEMORANDUM

DATE: July 21, 2023

TO: City of Beaverton
Washington County

FROM: Monica T. Leal, PE
Richard Martin, EIT

SUBJECT: REACH Elmonica Affordable Housing Traffic Impact Analysis (TIA) P21-076

This memorandum summarizes the traffic impact analysis associated with the proposed Elmonica development to be located at 17030 W Baseline Road in Beaverton, Oregon. The purpose of this analysis is to identify potential impacts to the transportation network for the year of opening for the site and the horizon year 2035, based on the standards established by the City of Beaverton and Washington County. This memorandum addresses the comments received from the TIA memorandum submitted on June 30, 2022.

Based on coordination with the jurisdictions and the TIA Methodology Memo,[1] this traffic impact analysis considers the following elements:

- Introduction
- Existing Conditions
  - Crash Data Analysis
  - Sight Distance Evaluation
  - Transit and Pedestrian/Bicycle Facilities
  - Existing Traffic Volumes
  - Existing Intersection Operations
- Future Conditions
  - Impact Analysis
  - Planned Improvements
  - Background Growth
  - 2025 Trip Generation and Trip Distribution
  - In-Process Trips
  - 2025 Traffic Analysis
  - 2035 Horizon Year Traffic Analysis
- Queueing Analysis
  - W Baseline Road at SW 170th Avenue Right Turn Lane Analysis
- Mitigations and Summary
- Appendix

The following intersections and site accesses were evaluated:

- W Baseline Road at SW 173rd Avenue
- W Baseline Road at SW 170th Avenue
- W Baseline Road/SW Jenkins Road at Elmonica Park and Ride Access

[1] The TIA Methodology Memo was submitted to the Agencies on January 21, 2022. The TIA methodology comments provided by the Agencies January 28, 2022 (WACO) and February 9, 2022 were incorporated.

- Light Rail Crossing on W Baseline Road (Queuing Impacts)
- Light Rail Crossing on SW 170th Avenue (Queuing Impacts)
- Site access on W Baseline Road
- Site access on SW 170th Avenue (Emergency Vehicles Only)

INTRODUCTION

The proposed Elmonica development includes the construction of an affordable housing development at 17030 W Baseline Road in Beaverton, Oregon. No facilities currently exist on the site. The Elmonica development will share an access on W Baseline Road with a new neighboring development to be located at 17160 W Baseline Road to limit accesses to arterials. The proposed Elmonica development will utilize the shared access on W Baseline Road as a right-in and right-out access and will have an emergency vehicle access on SW 170th Avenue (See Figure 1). The neighboring development will also have a full-movement access on SW 170th Avenue which is anticipated to be utilized by residents of the REACH Elmonica development. Access points for both developments are shown in Appendix A.

The project includes a four-story building that offers 81 affordable housing units, broken down as follows:

- 24 studio apartments
- 24 one-bedroom apartments
- 18 two-bedroom apartments
- 15 three-bedroom apartments

Also included in the Elmonica development are 46 parking spaces on site. Figure 1 provides a vicinity map that shows the project site and the study intersections. Figure 2 shows a preliminary site plan.

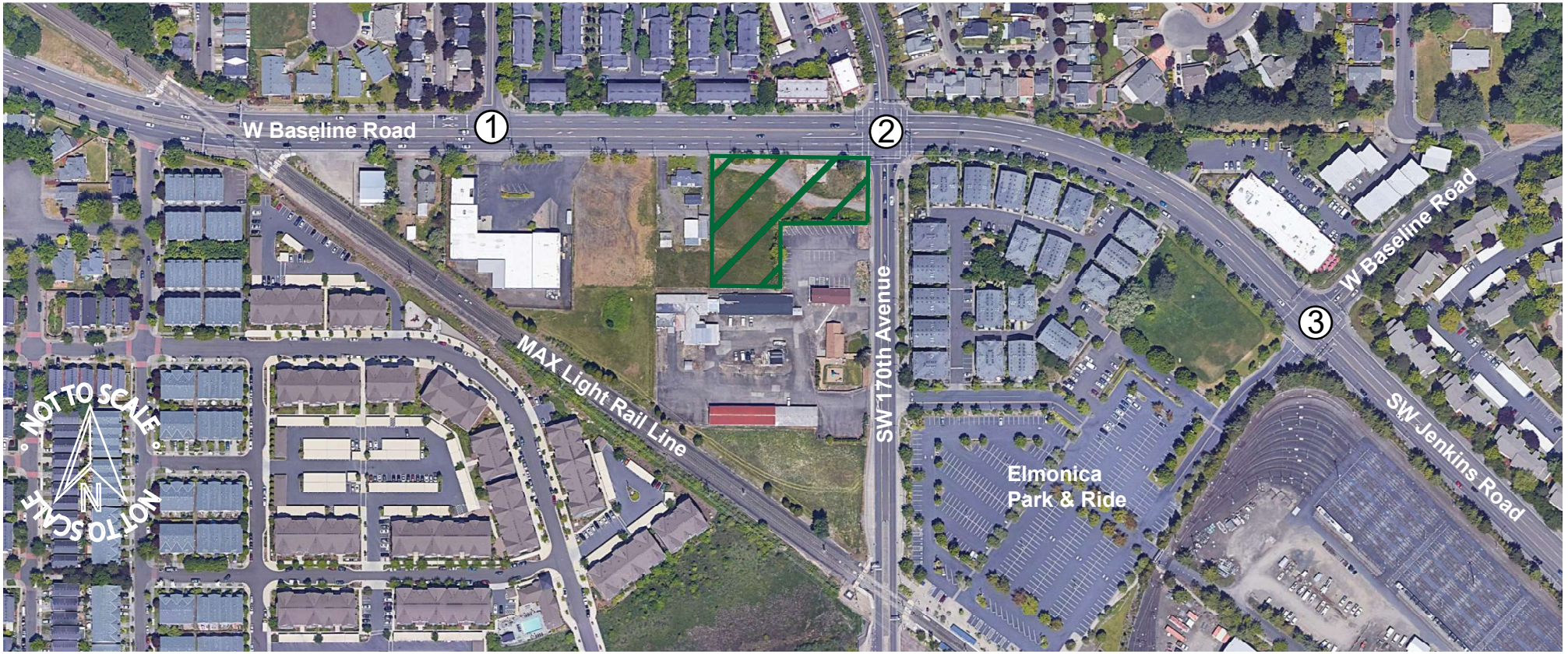
EXISTING CONDITIONS

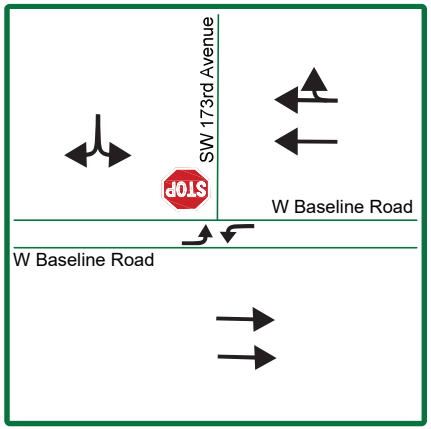
Existing transportation conditions were evaluated at the study intersections. All modes of travel were evaluated, including pedestrians, bicycles, transit, and motor vehicles. The existing transportation conditions are summarized in Table 1.

Table 1: Roadway Characteristics

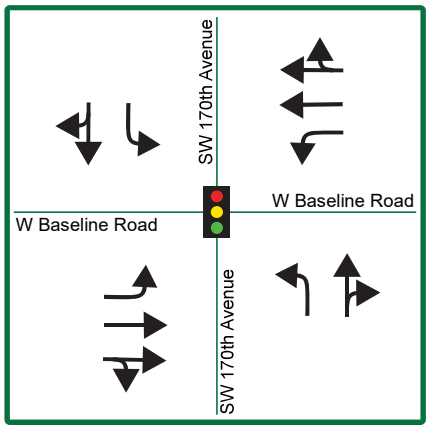
Roadway	Average Daily Traffic[1]	Functional Classification[2]	Posted Speed Limit	Sidewalks	Transit	Bike Lanes	Lane Geometry	On-Street Parking
W Baseline Road	23,732 (West of 170th)	Arterial (WACO)	45 mph	Both sides	None	Both sides	Two 12' lanes in each direction and a two-way left-turn lane	None
SW Jenkins Road	17,401 (East of 170th)	Arterial (WACO)	45 mph	Both sides	None	Both sides	Two 11.5'-12' lanes in each direction and a two-way left-turn lane	None
SW 173rd	2,378	Neighborhood Route	30 mph	Both sides	None	None	One 12' lane in the NB and SB directions	Both sides
SW 170th Avenue	14,585 south of Baseline, 8,008 north of Baseline	Arterial (WACO)	40 mph south of Baseline, 35 mph north of Baseline	Both sides, except on the west side south of W Baseline	TriMet MAX Light Rail Station *Elmonica/ 170th Ave*	West side north of SW Whitley Way	One 12' lane in each direction and a two-way left-turn lane	None

Notes: [1]Based on 2019 tube counts conducted by Washington County and available through City of Beaverton: https://gis.beavertonoregon.gov/trafficcounts/
[2]Based on the Washington County and City of Beaverton TSP
WACO = Washington County Road

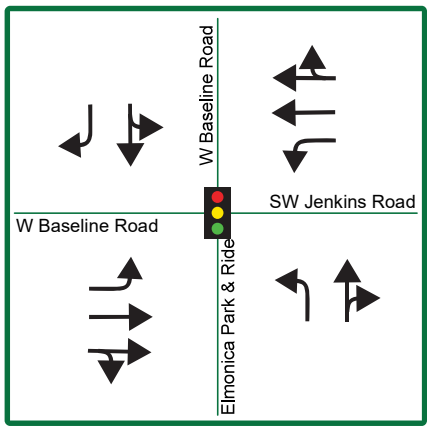




① W Baseline Road at SW 173rd Avenue



② W Baseline Road at SW 170th Avenue



③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

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= Project Site = Traffic Signal = Study Intersection

= Existing Lane Configuration = Stop Sign

Figure 1: Vicinity Map

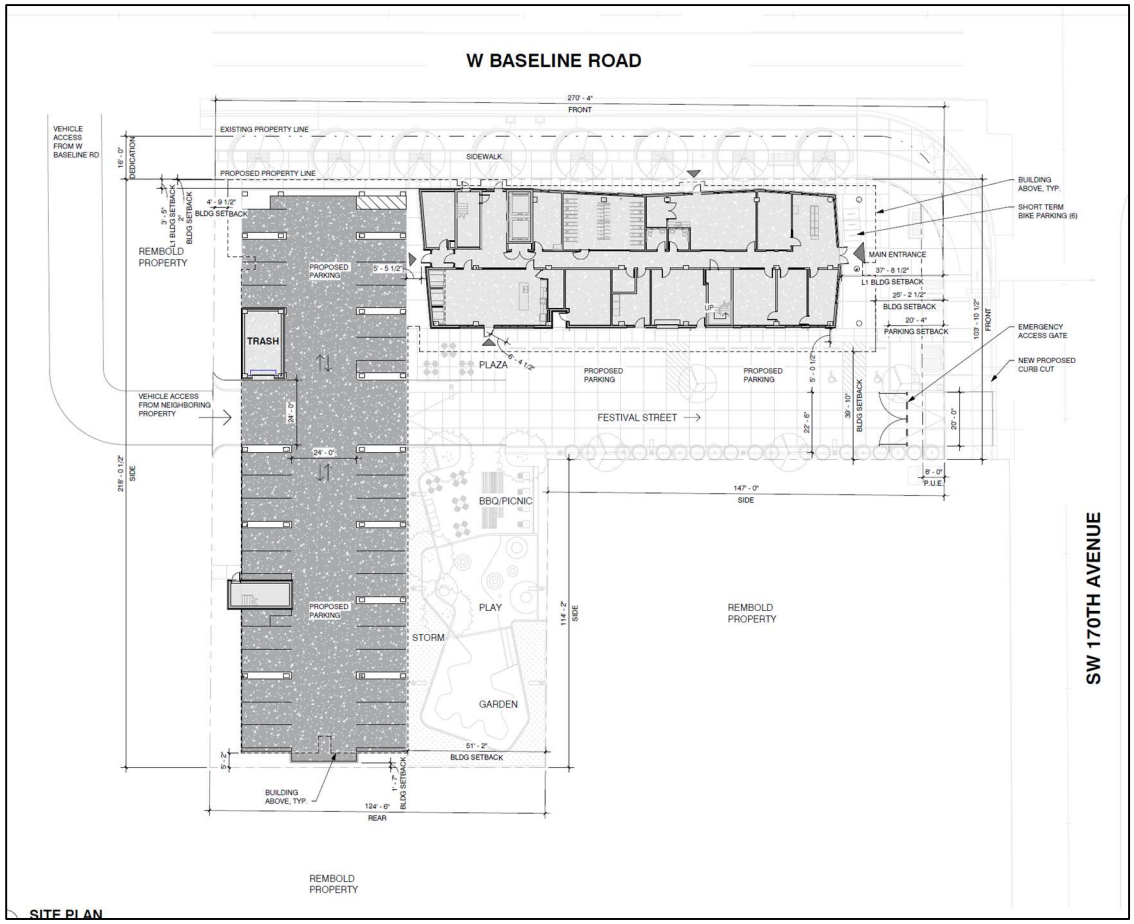


Figure 2: Preliminary Site Plan

Crash Data Analysis

The last five years of complete crash data (January 2016 through December 2020) was obtained from the ODOT Crash Data System and was reviewed to identify traffic safety concerns at the study intersections. The crash rates presented in Table 2 are based on the number of crashes per million entering vehicles (MEV). Typically, an intersection is not considered unsafe unless its crash rate exceeds the threshold of 1.0 crashes per MEV. The crash rates were compared to the statewide 90th percentile crash rates for the various intersection configurations. If the crash rate is higher than the statewide 90th percentile crash rate, the intersection is flagged for further analysis and needs to be reviewed in more depth[2]. None of the study intersection crash rates exceed the statewide 90th-percentile crash rates. A summary of crash types is presented in Table 3.

The ODOT and Washington County Safety Priority Index System (SPIS)[3] Lists were reviewed to determine if the study intersections are part of the top 10% intersections on the lists. Currently, none of the study intersections are part of either the ODOT or Washington County SPIS 10% Lists. The W Baseline Road and SW 170th Avenue intersection is ranked #94 and W Baseline Road/SW Jenkins Road at Elmonica Park and Ride is ranked #315 on the Washington County SPIS List.

[2] ODOT Analysis Procedure Manual, Section 4.2, Crash Data.
[3] https://www.oregon.gov/odot/Engineering/DocSPIS_OFFstate/WA2_Top15SitesByLocation_Washington_2019.pdf

Table 2: Crash Data Summary

Intersection	Crash History (Years)	Number of Crashes	Crashes per year	Annual Traffic Entering (veh/yr)	Crash rate per M.E.V.[1]	Statewide 90th Percentile Crash Rate[2]
W Baseline Road at SW 173rd Avenue	5	7	1.4	7,697,850	0.182	0.293 (3ST)
W Baseline Road at SW 170th Avenue		27	5.4	10,906,200	0.495	0.860 (4SG)
W Baseline Road / SW Jenkins Road at Elmonica Park & Ride		14	2.8	7,675,950	0.365	0.860 (4SG)

Notes: [1] M.E.V. = million entering vehicles.
[2] Assessment of Statewide Intersection Safety Performance, FHWA-OR-RD-18, Portland State University and Oregon State University, June 2011, Table 4.1, p. 47 (Urban).
4SG = four-leg signalized, 3ST = three-leg stop control

Table 3: Crash Types

Crash Type	Intersection				
W Baseline Road at SW 173rd Avenue					
YEAR	2016	2017	2018	2019	2020
Rear End	1(1)				
Turning Movement	1(0)			4(3)	1(1)
Subtotal:	2(1)			4(3)	1(1)
Total:	**7(5)**				
W Baseline Road at SW 170th Avenue					
YEAR	2016	2017	2018	2019	2020
Fixed Object				1(0)	
Pedestrian	2(2)			1(1)	1(1)
Rear End	2(2)	6(4)	2(2)	1(1)	
Angle Type	1(0)	1(1)	1(1)		1(0)
Turning Movement	1(1)	1(0)		4(2)	1(1)
Subtotal:	6(5)	8(5)	3(3)	7(4)	3(2)
Total:	**27(19)**				
W Baseline Road / SW Jenkins Road at Elmonica Park and Ride Access					
YEAR	2016	2017	2018	2019	2020
Angle Type	1(1)	2(1)	1(1)		
Fixed Object			1(0)		
Pedestrian			1(1)		
Bicycle				1(1)	
Rear End	1(0)				
Turning Movement	1(1)	3(2)		1(1)	1(0)
Subtotal:	3(2)	5(3)	3(2)	2(2)	1(0)
Total:	**14(9)**				

Note: X(X)= Total Crash (Injury crashes)

No time-of-day, or causal patterns were found for the four 2019 turning movement collisions at W Baseline Road at SW 173rd Avenue. No other patterns or serious injury crashes were found at W Baseline Road and SW 173rd Avenue intersection.

The crash data at the W Baseline Road and SW 170th Avenue intersection showed the following four pedestrian crashes with injuries:

- Two of the pedestrian crashes occurred between vehicles turning from south to west and pedestrians crossing on the west side of the intersection. One of the crashes occurred on Monday in 2016 at 9:00 pm and the other on Sunday in 2019 at 2:00 am. In both cases the pavement surface was wet, and rain was present in one of the crashes. In both cases vehicles failed to yield right of way to pedestrians.
- The third pedestrian crash occurred on Thursday at 7:00 PM when the pedestrian disregarded the traffic signal and walked into the road.
- The fourth pedestrian crash occurred on a rainy Tuesday at 6:00 PM when a vehicle turning from north to east failed to yield right of way to the pedestrian. Based on the crash records, the roadway surface was wet and contributed to the crash.

Based on the crash data, no clear causes or patterns were identified at the W Baseline Road and SW 170th Avenue intersection.

No directional, time-of-day, or causal patterns were found for any of the crashes at W Baseline Road / SW Jenkins Road at the Elmonica Park & Ride.

None of the study intersections exceed the 90th percentile crash rate and no clear crash patterns were found. Also, the crashes per MEV rate is less than 1.0. Based on this analysis, no crash-related mitigations are recommended. Detailed crash data is available in Appendix B.

Sight Distance Evaluation

Intersection and stopping sight distances were evaluated for the proposed right-in and right-out access on W Baseline Road and the proposed right-out access on SW 170th Avenue. The right-out access on SW 170th Avenue will serve emergency vehicles only. The sight distance evaluation follows the guidance provided in the American Association of State Highway and Transportation Official's (AASHTO) Geometric Design of Highways and Streets, 2011, and the Washington County Development Code Section 501-8.5.

Per Washington County standards, minimum sight distance shall be equal to ten times the vehicle speed of the road. This analysis assumed an object height of 4.25 feet, a driver's eye height of 3.5 feet, and a driver's setback of 15 feet from the traveled way.

Because the proposed accesses are limited to right-in and right-out on W Baseline Road and a right-out on SW 170th Avenue, only the AASHTO right-turn intersection sight distance scenarios were evaluated. Sight distance was compared to the AASHTO design intersection and stopping sight distance for the following cases:

- Case B2, Right Turn from the Minor Road[4]
- Stopping Sight Distance for Level Roadway[5]

For a 35-mph roadway, AASHTO requires 250 feet of stopping sight distance (SSD) and 335 feet of intersection sight distance (ISD); and Washington County requires 350 feet of ISD. For a 45-mph

[4] AASHTO, Case B2 – Intersections with stop control on the minor road (AASHTO, Case B2, Table 9-8).
[5] AASHTO, Table 3-1.

roadway, AASHTO requires 360 feet of SSD and 430 feet of ISD; and Washington County requires 450 feet of ISD.

Table 4 shows a summary of the sight distance evaluation. Figure 3 illustrates sight distance for the W Baseline Road access. Figure 4 illustrates sight distance for the SW 170th Avenue access. Figures 5 to 7 show the stopping sight distance available for southbound vehicles on SW 170th Avenue and westbound left turn and eastbound right turn vehicles on W Baseline Road.

Table 4: Sight Distance Evaluation

Sight Distance Evaluated	Posted Speed (mph)	Estimated Available Sightline (ft)	Sight Distance Standards (ft)	Meets Standard?
Proposed Access at W Baseline Road				
Case B2: Right-turn	45	≈ 1,000	430 (AASHTO) 450 (County)	Yes
SSD - EB		≈ 1,000	360 (AASHTO)	Yes
Proposed Emergency Access at SW 170th Avenue				
Case B2: Right-turn – SB TH	35	350	335 (AASHTO) 350 (County)	Yes Yes
SSD–SB TH on SW 170th Ave	35	365	250 (AASHTO)	Yes
SSD–WB LT on W Baseline Road	15[2] / 17[3] / 20[4]	250 / 150 [1]	80[2] /95[3] /115[4] (AASHTO)	Yes
SSD–EB RT on W Baseline Road		185		Yes

Notes:
[1] SSD without vehicles on the NB left turn lane/ SSD with vehicles on the NB left turn lane.
[2] 15 mph was utilized based on a field investigation conducted on December 28, 2022. An average speed of 15 mph was considered a comfortable driving speed for westbound and eastbound turning vehicles.
[3] 17 mph was utilized based on coordination with Washington County and the Washington County Sight Distance Guidelines – Rev 2 Memorandum dated 4/8/2021.
[4] 20 mph was included based on the Access Management Plan Comments provided by Washington County in December, 2022.

Figure 3: Looking west from the proposed W Baseline Road access

Figure 4: Looking north from the proposed emergency-only SW 170th Avenue access (Southbound Traffic)

Figure 5: Stopping sight distance for southbound SW 170th Avenue traffic

Figure 6: Stopping sight distance for westbound left turn Baseline traffic

Figure 7: Stopping sight distance for eastbound right turn Baseline traffic

Figure 3 shows that sight lines are clear for over 1,000 feet to the west from the proposed W Baseline Road access. Figure 4 shows that sight lines from the proposed SW 170th Avenue emergency access are limited by a roadway curve north of the intersection. However, the intersection sight distance was measured to be 350 feet, which meets all standards for the access. The existing trees located on the

northwest quadrant of the W Baseline Road and SW 170th Avenue intersection are located within the clear sight triangle (See Figure 4). However, trees do not create a solid wall and vehicle visibility is not impacted. No sight distance issues were found and no mitigations are recommended.

SSD is met for southbound vehicles on SW 170th Avenue and westbound left turn and eastbound right turn vehicles on W Baseline Road. The SSD of 250 feet for the westbound left turn vehicles could be impacted by northbound left turn traffic. However, an SSD of approx. 150 feet is still available for westbound left turn traffic approaching the site access. No sight distance issues were found and no mitigations are recommended.

Potential obstructions such as signing, landscaping, or structures that may result in blocking sightlines to less than the allowable standard shall not be permitted as part of this development.

Transit and Pedestrian/Bicycle Facilities

The Elmonica development location and design emphasizes walking, biking, and transit as the primary modes of transportation. Bus stops for TriMet Lines 59 and 67 are within one mile of the project site on Walker Road and SW Jenkins Road. The Elmonica Park & Ride Station is located approximately 750 feet from the project site. There is a comprehensive sidewalk network in the area to connect pedestrians from the proposed development to the MAX Light Rail station. Bike lanes exist along W Baseline Road and the Elmonica development is adding a southbound bike lane along the project frontage on SW 170th Avenue. The Elmonica development design includes bicycle storage facilities, lockers, a garden, a play area, a picnic and BBQ space, and a plaza. The proposed Elmonica improvements will enhance the existing pedestrian and bicycle facilities in the area and facilitate access to transit facilities.

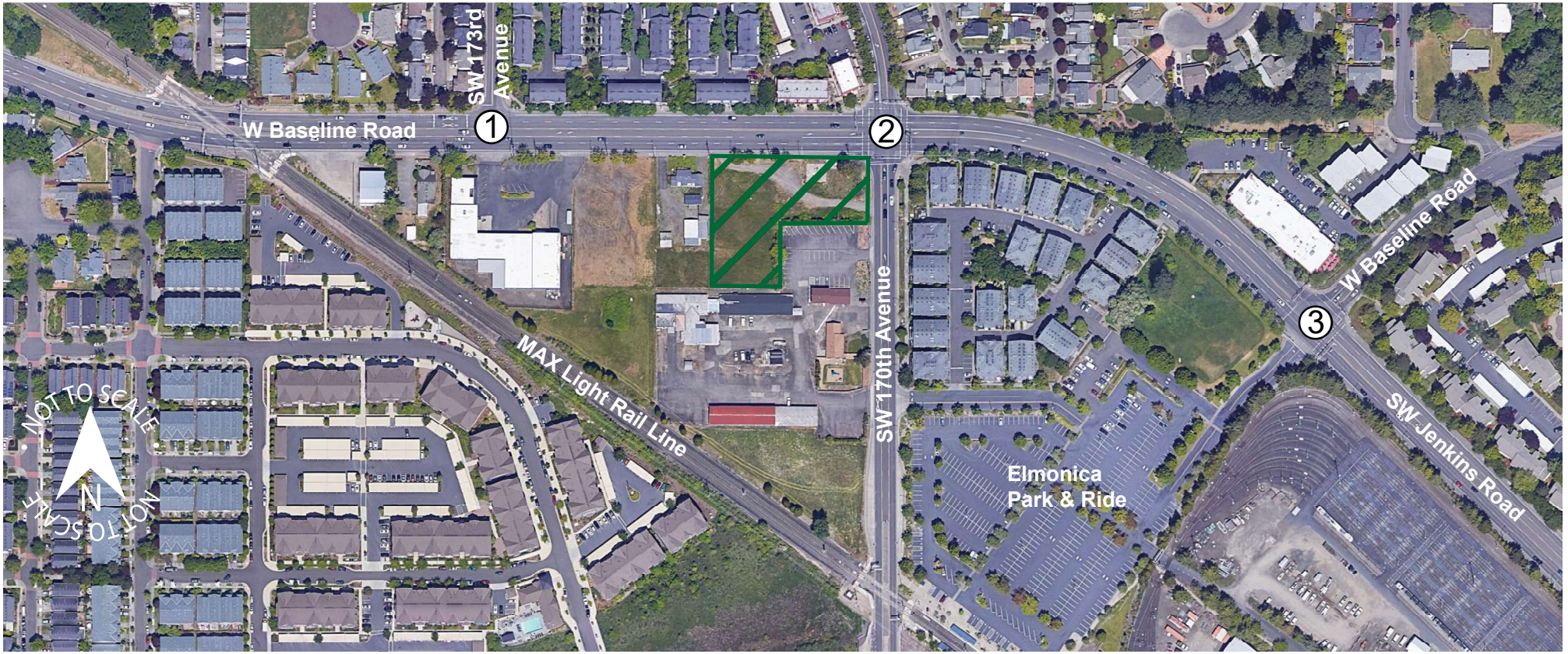
New pedestrian crossings are not proposed as part of this development since signalized pedestrian crosswalks exist at the adjacent intersection of W Baseline Street and SW 170th Avenue. Ideally, pedestrian crossings occur at road intersections having traffic signals so that road crossings could be made safely with minimal additional improvements. The addition of a new pedestrian crossing is also limited by the proximity to the intersection of W Baseline Road at SW 170th Avenue and the size of the development frontages.

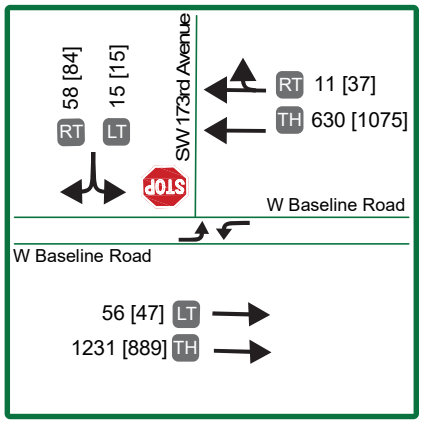
Existing Traffic Volumes

Vehicle, pedestrian, and bicycle count data was collected over two midweek days during the AM and PM peak hours in accordance with the City of Beaverton data requirements. Traffic count data was collected on February 15th and 16th, 2022 during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM). The average of the two counts for each turning movement was used in the analysis. For all other Synchro analysis settings, the data from the collected dates with the higher peak hour factor was used. The detailed traffic count data has been included in Appendix C.

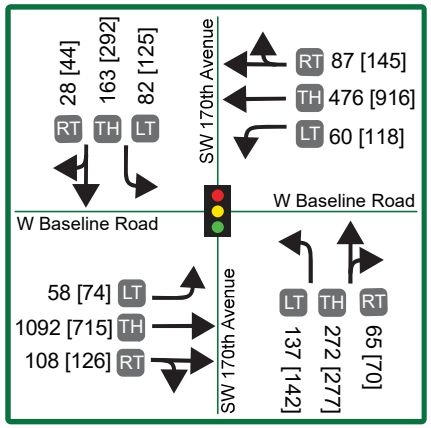
An adjustment factor was applied to the existing traffic count data to account for disruptions in traffic volumes caused by the COVID-19 pandemic. An adjustment factor of 5.0% was applied to the AM peak hour and 1.6% to the PM peak hour, based on coordination with Beaverton and Washington County[6]. The adjusted peak hour traffic count data and existing lane configurations are shown in Figure 8.

[6] Email exchange with Beaverton and Washington County dated May 10, 2023.

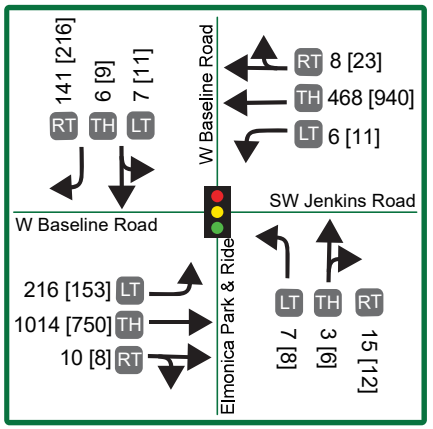




① W Baseline Road at SW 173rd Avenue



② W Baseline Road at SW 170th Avenue



③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

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= Project Site = Traffic Signal = Study Intersection = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

AM [PM] = Average Peak Hour Volumes

Figure 8: Traffic Volumes 2022 Existing Conditions

Existing Intersection Operations

An intersection performance analysis was conducted to document the existing operations for the study intersections and to develop a baseline for analyzing future intersection operational needs associated with the proposed development. The peak periods analyzed for this evaluation include the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM).

The level of service and volume-to-capacity (V/C) analyses presented in this report has been completed using the Synchro (Version 11) analysis software. Synchro is based on the 2000 Highway Capacity Manual (HCM 2000) methodology for signalized and unsignalized intersections. Signal timing data for the signalized intersections was provided by Washington County.[7] The analysis was performed for all study intersections.

The City of Beaverton utilizes a maximum recommended volume-to-capacity (v/c) ratio of 0.98 for each lane group and a maximum delay of 65 seconds per vehicle for signalized intersections, in accordance with Chapter 60.55.10 of the Beaverton Zoning Code. For unsignalized intersections, the maximum acceptable delay is 45 seconds.

Table 5 summarizes the mobility targets and the existing traffic operations for the study intersections. The detailed analysis results have been included in Appendix D.

Table 5: 2022 Existing Conditions Intersection Performance Summary

Intersection	Mobility Targets	Peak Hour	Performance Measures[1]		
			Delay (Sec)	Level of Service	V/C
W Baseline Road at SW 173rd Avenue	Delay < 45 sec	AM	0.7	A	0.45
		PM	0.7	A	0.50
W Baseline Road at SW 170th Avenue	V/C < 0.98 Delay < 65 sec	AM	27.6	C	0.81
		PM	30.8	C	0.83
W Baseline Road / SW Jenkins Road at Elmonica Park & Ride Access		AM	10.0	A	0.42
		PM	13.2	B	0.46
Notes: [1]Delay is reported as the average total delay of the intersection, v/c for signalized intersections is reported for the worst lane group. **Bold** = does not meet mobility target					

Under existing conditions, all study intersections operate at acceptable performance levels.

FUTURE CONDITIONS

Impacts Analysis

Analysis was conducted to determine the expected traffic operating conditions for all study intersections for the buildout year 2025 and horizon year 2035. Background growth and site-generated trips were added to existing volumes to develop the following scenarios:

- 2025 Background – existing peak hour volumes plus background growth over three years and in-process trips.
- 2025 Buildout – 2025 Background volumes plus site-generated trips.
- 2035 Horizon Year Background – existing peak hour volumes plus background growth over 13 years and in-process trips.

[7] Signal timing data provided by Washington County on April 5, 2022.

- 2035 Horizon Year Buildout – 2035 background volumes plus site-generated trips.

Planned Improvements

The intersection of W Baseline Road at SW 170th Avenue is planned for an eastbound right-turn lane[8]. The 2035 horizon year was evaluated with and without the planned eastbound right turn lane.

Background Growth

A background growth rate of two percent per year was developed in coordination with the City of Beaverton for use in the future conditions analyses.[9]

2025 Trip Generation and Trip Distribution

Trip rates were taken from the Institute of Transportation Engineer's (ITE) *Trip Generation Manual, 11th Edition* based on the land uses. Rated average or fitted curve equations as recommended by Chapter 4 of the ITE *Trip Generation Handbook* were utilized in the trip generation development. Estimates were developed for AM, PM, and Average Daily Trips (ADT).

The proposed development will build 81 affordable multi-family housing units at the site. In review of ITE land use codes, the trips generated by the development will most closely be represented by the ITE Land Use Code 223 – Affordable Housing. Table 6 summarizes an estimate of the trip generation.

Table 6: Trip Generation Summary

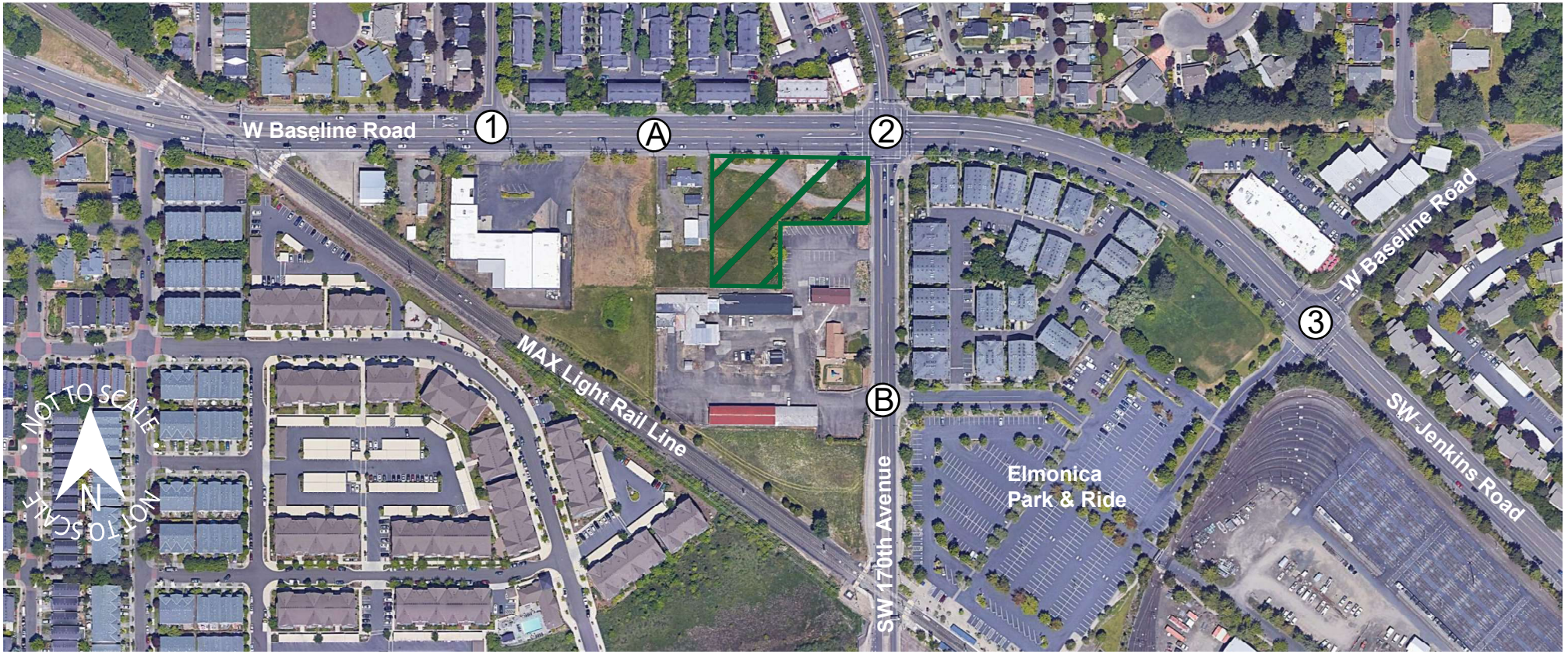
ITE Land Use Code	Size	Units	AM Peak Hour			PM Peak Hour			Weekday Daily
			Total	In	Out	Total	In	Out	Total
223 – Affordable Housing	81	Units	34	10	24	37	22	15	390

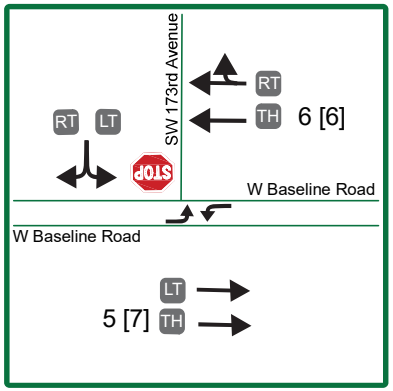
Figure 9 shows the Trip Distribution for this project. The peak hour turning movement counts obtained at the study intersections, the characteristics of the area, and the anticipated travel patterns for this type of development were used to distribute site generated vehicle traffic. The project trip distribution also considered the available access points for the development including the shared right-in and right-out access on W Baseline Road and the neighboring full-movement access on SW 170th Avenue. See Appendix A for available access points considered in this analysis. Based on coordination with the project team and the neighboring development, the Elmonica residents will have access to the two proposed neighboring access points, the shared right-in and right-out access on W Baseline Road and the full-movement access on SW 170th Avenue.[10]

In-Process Trips

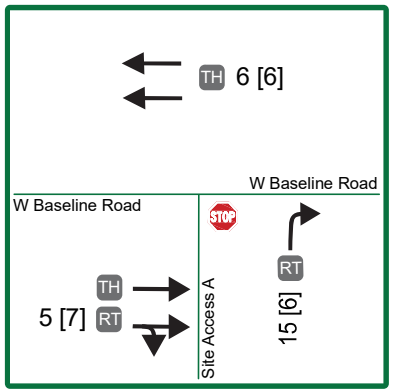
Based on coordination with staff from the City of Beaverton and Washington County, no in-process trips were included in the analysis.[11] However, for the future conditions analyses historic count data was obtained in order to provide minor-street movement data for the Elmonica Park & Ride access opposite the proposed Site Access B. The turning movements for this access were utilized in the analysis but through volumes on SW 170th Avenue were balanced with the intersection of W Baseline Road / SW 170th Avenue. The historic count data is included in Appendix C.

[8] Based on coordination with Washington County, a future eastbound right turn lane is planned at the intersection.
[9] Email coordination with City of Beaverton Engineering staff, dated February 11, 2022.
[10] Based on coordination meeting with the Elmonica and the proposed neighboring developments on April 7, 2022.
[11] Emails from Beaverton and Washington County dated February 11, 2022.

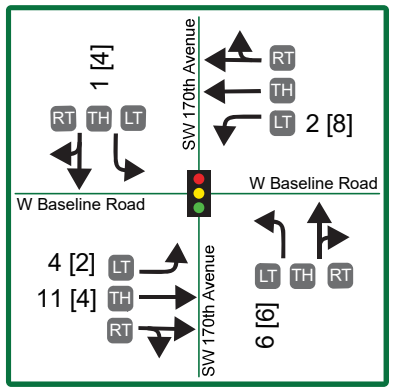




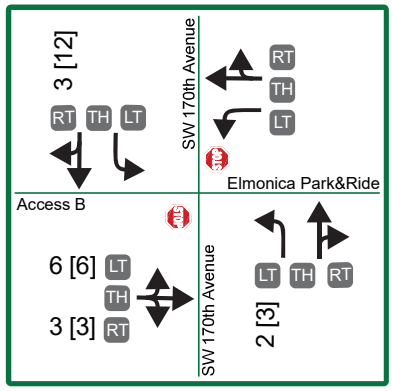
1 W Baseline Road at SW 173rd Avenue



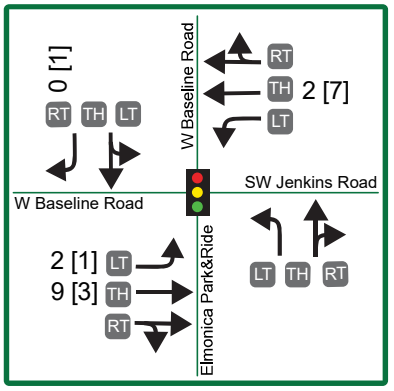
A W Baseline Road at Site Access A



2 W Baseline Road at SW 170th Avenue



B SW 170th Avenue at Site Access B



3 W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

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= Project Site = Traffic Signal = Study Intersection = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

X [X] = AM [PM] Peak Hour Volumes

Figure 9: Traffic Volumes Trip Distribution

2025 Traffic Analysis

2025 Background Traffic Volumes

The background growth rates were applied to the existing peak hour volumes to develop the 2025 background traffic volumes. This represents the projected traffic volumes along the transportation network without the proposed development. The 2025 Background traffic volumes are shown in Figure 10.

2025 Buildout Traffic Volumes

To develop the 2025 buildout traffic volumes, project site generated trips were distributed and added to the 2025 background volumes. The 2025 buildout traffic volumes are presented in Figure 11.

2025 Intersection Performance

Tables 7 and 8 show the intersection performance summaries for the 2025 background and 2025 buildout scenarios. Intersection geometry was assumed to be the same as under the existing conditions. Cycle lengths and splits were maintained from existing conditions for the 2025 analyses. The detailed analysis results have been included in Appendix E.

Table 7: 2025 Background Intersection Performance Summary

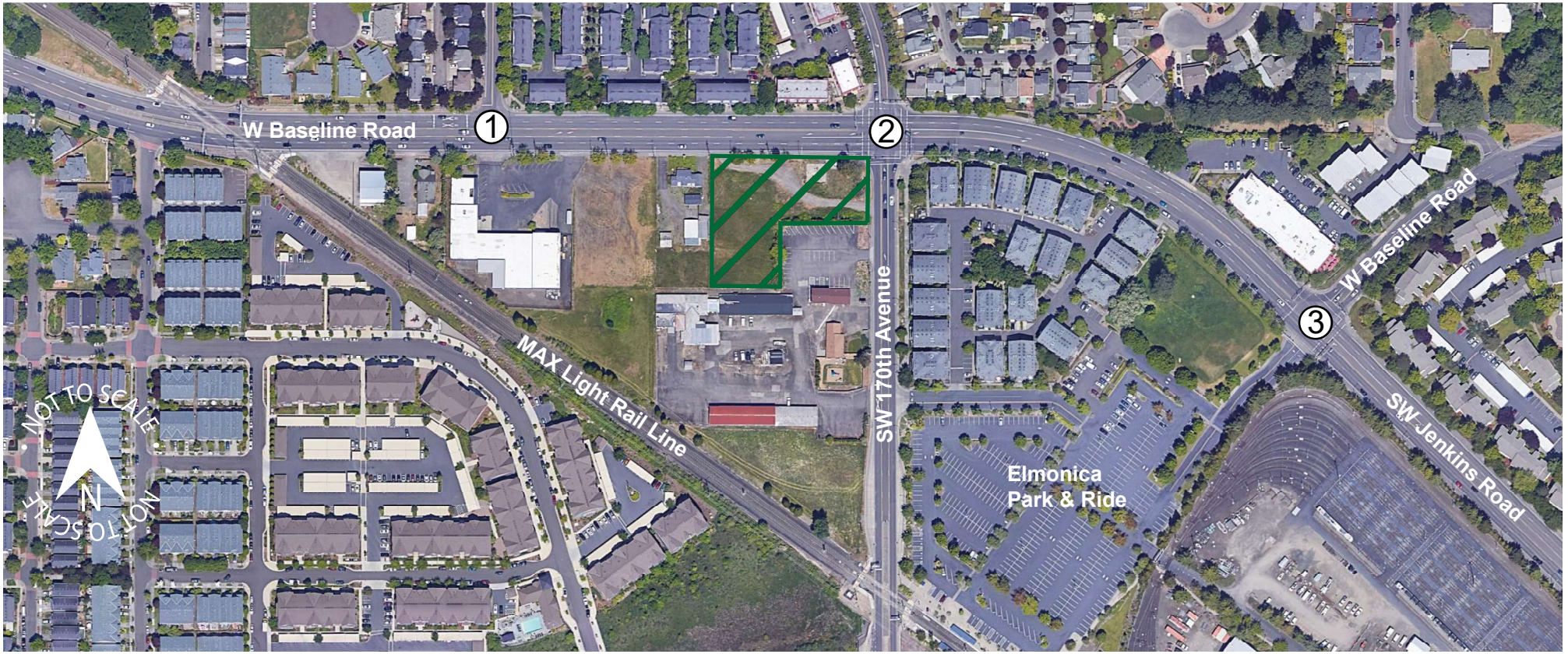
Intersection	Mobility Targets	Peak Hour	Performance Measures[1]		
			Delay	LOS	V/C
W Baseline Road at SW 173rd Avenue	Delay < 45 sec	AM	0.7	A	0.47
		PM	0.8	A	0.52
W Baseline Road at SW 170th Avenue	V/C < 0.98 Delay < 65 sec	AM	28.8	C	0.82
		PM	31.4	C	0.84
W Baseline Road / SW Jenkins Road at Elmonica Park and Ride Access		AM	10.1	B	0.44
		PM	13.2	B	0.47
Notes: [1]Delay is reported as the average total delay of the intersection, v/c for signalized intersections is reported for the worst lane group. Bold = does not meet mobility target					

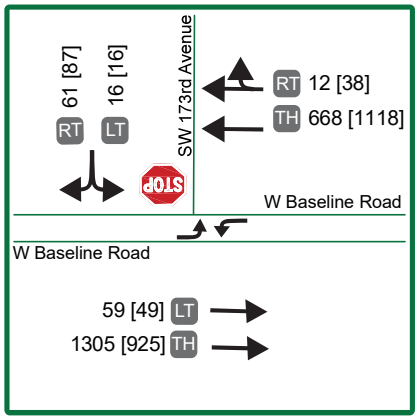
As shown in Table 7, all study intersections continue to operate at acceptable levels through the 2025 background conditions.

Table 8: 2025 Buildout Intersection Performance Summary

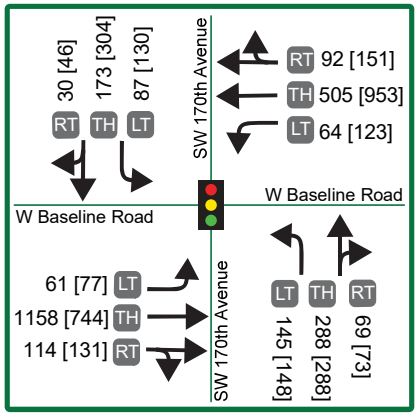
Intersection	Mobility Targets	Peak Hour	Performance Measures[1]		
			Delay	LOS	V/C
W Baseline Road at SW 173rd Avenue	Delay < 45 sec	AM	0.7	A	0.48
		PM	0.8	A	0.52
W Baseline Road at Site Access A		AM	0.1	A	0.47
		PM	0.0	A	0.36
W Baseline Road at SW 170th Avenue	V/C < 0.98 Delay < 65 sec	AM	30.0	C	0.83
		PM	31.6	C	0.84
SW 170th Avenue at Site Access B	Delay < 45 sec	AM	1.2	A	0.50
		PM	1.4	A	0.41
W Baseline Road / SW Jenkins Road at Elmonica Park and Ride Access	V/C < 0.98 Delay < 65 sec	AM	13.2	B	0.45
		PM	13.4	B	0.48
Notes: [1]Delay is reported as the average total delay of the intersection, v/c for signalized intersections is reported for the worst lane group. **Bold** = does not meet mobility target					

As shown in Table 8, the study intersections continue to operate at similar levels to that of the 2025 background conditions scenario. No mitigations are recommended.





① W Baseline Road at SW 173rd Avenue



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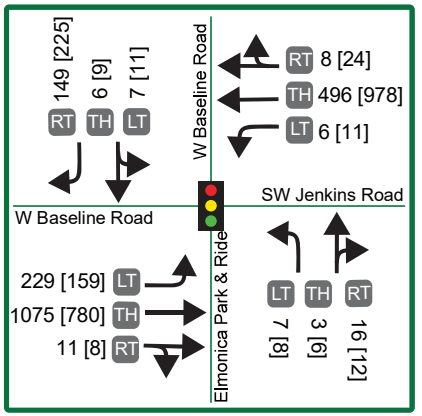


③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

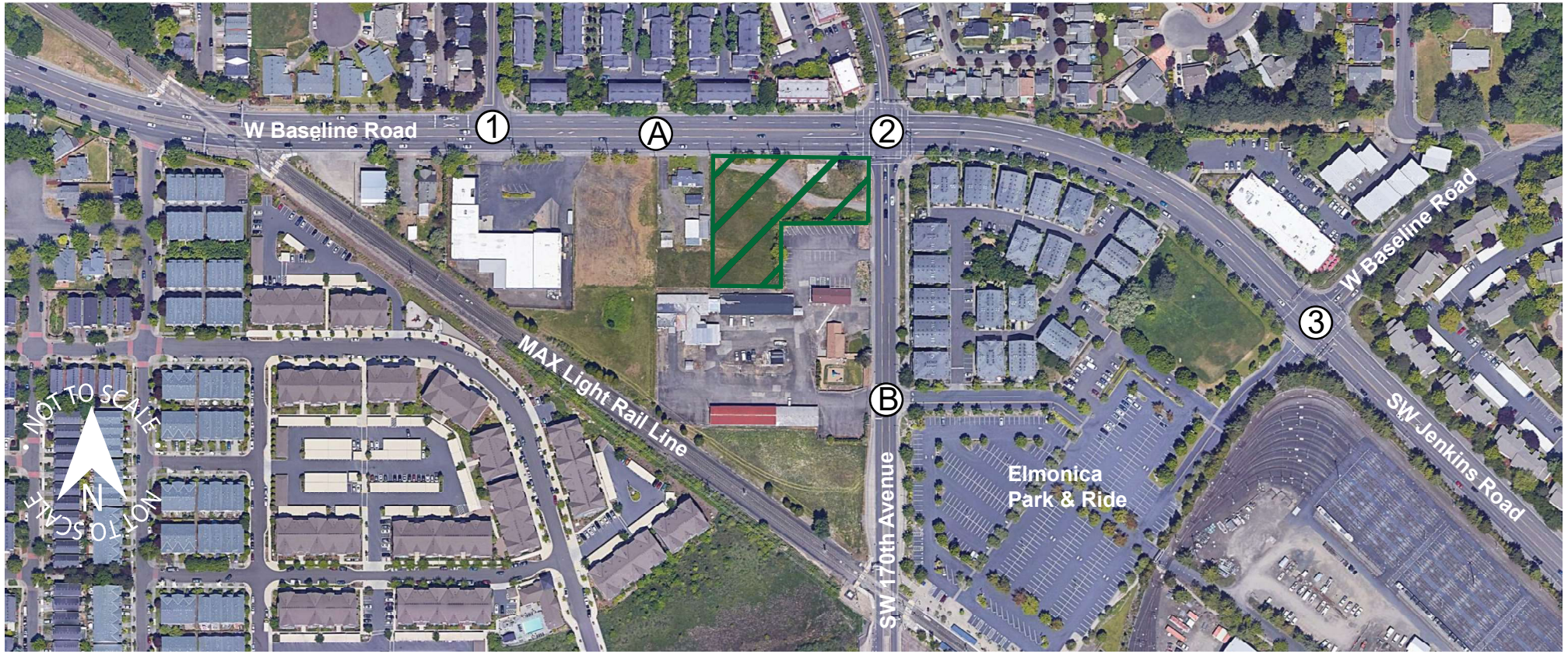
GLOBAL Transportation Engineering

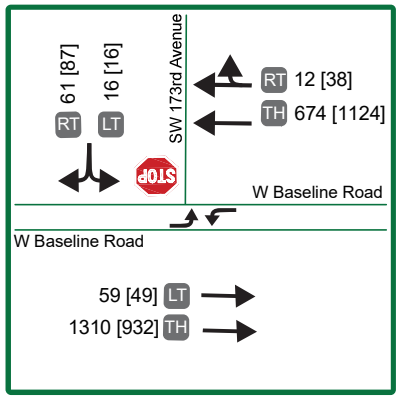
= Project Site = Traffic Signal = Study Intersection = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

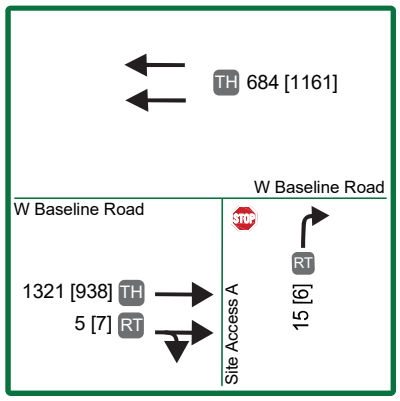
AM [PM] = Peak Hour Volumes

Figure 10: Traffic Volumes 2025 Background Conditions

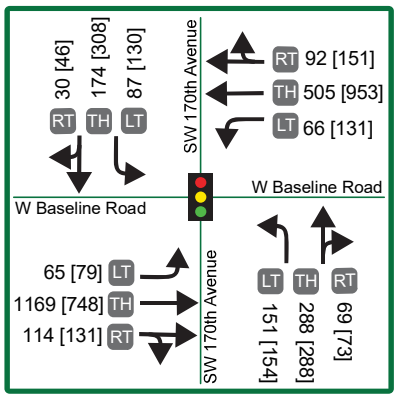




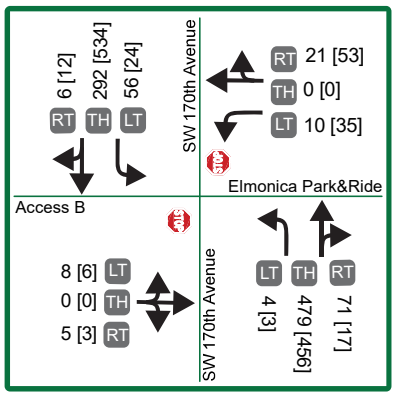
① W Baseline Road at SW 173rd Avenue



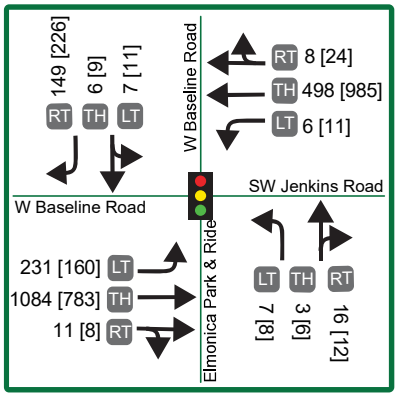
Ⓐ W Baseline Road at Site Access A



② W Baseline Road at SW 170th Avenue



Ⓑ SW 170th Avenue at Site Access B



③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

GLOBAL Transportation Engineering

= Project Site = Traffic Signal Ⓧ = Study Intersection STOP = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

AM [PM] = Peak Hour Volumes

Figure 11: Traffic Volumes 2025 Buildout Conditions

2035 Horizon Year traffic Analysis

2035 Horizon Year Background Traffic Volumes

An additional 10 years of background growth was applied to the 2025 background traffic volumes to achieve the 2035 horizon year background traffic volumes. The 2035 horizon year background traffic volumes are shown in Figure 12.

2035 Horizon Year Buildout Traffic Volumes

An additional 10 years of background growth was applied to the 2025 buildout traffic volumes to achieve the 2035 horizon year buildout traffic volumes. The 2035 horizon year buildout traffic volumes are shown in Figure 13.

2035 Intersection Performance

Tables 9 and 10 show the intersection performance summaries for the 2035 horizon year background and buildout scenarios. Intersection geometry and signal timings were assumed to be the same as under the existing conditions. The detailed analysis results have been included in Appendix E.

Table 9: 2035 Horizon Year Background Intersection Performance Summary

Intersection	Mobility Targets	Peak Hour	Performance Measures[1]		
			Delay (Sec)	Level of Service	V/C
W Baseline Road at SW 173rd Avenue	Delay < 45 sec	AM	0.7	B	0.55
		PM	0.8	B	0.60
W Baseline Road at SW 170th Avenue	V/C < 0.98 Delay < 65 sec	AM	35.1	D	0.90
		PM	38.4	D	0.88
W Baseline Road / SW Jenkins Road at Elmonica Park and Ride Access	V/C < 0.98 Delay < 65 sec	AM	10.6	B	0.51
		PM	14.2	B	0.54

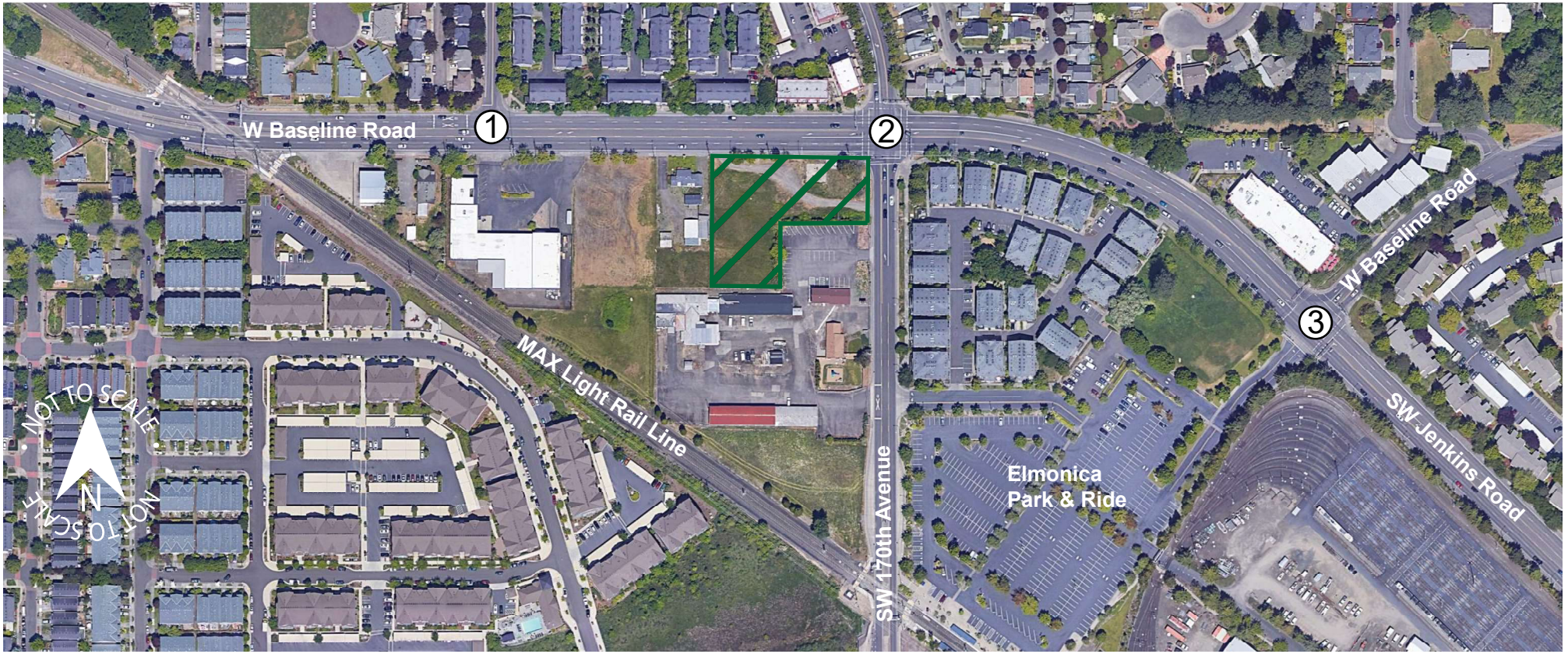
Notes: [1]Delay is reported as the average total delay of the intersection, v/c for signalized intersections is reported for the worst lane group. **Bold** = does not meet mobility target

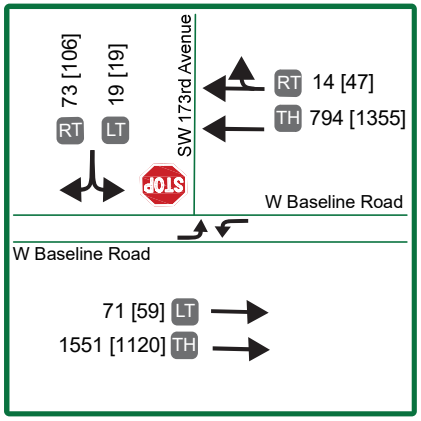
Table 10: 2035 Horizon Year Buildout Intersection Performance Summary

Intersection	Mobility Targets	Peak Hour	Performance Measures[1]		
			Delay (Sec)	Level of Service	V/C
W Baseline Road at SW 173rd Avenue	Delay < 45 sec	AM	0.7	A	0.55
		PM	0.8	B	0.60
W Baseline Road at Site Access A		AM	0.1	A	0.54
		PM	0.0	A	0.42
W Baseline Road at SW 170th Avenue	V/C < 0.98 Delay < 65 sec	AM	35.5	D	0.91
		PM	39.0	D	0.89
SW 170th Avenue at Site Access B	Delay < 45 sec	AM	1.2	B	0.56
		PM	1.4	A	0.47
W Baseline Road / SW Jenkins Road at Elmonica Park and Ride Access	V/C < 0.98 Delay < 65 sec	AM	10.6	B	0.52
		PM	14.3	B	0.55

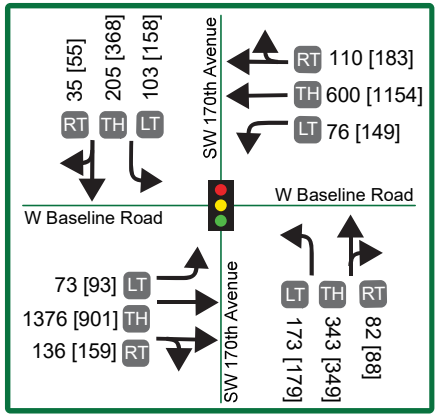
Notes: [1]Delay is reported as the average total delay of the intersection, v/c for signalized intersections is reported for the worst lane group. **Bold** = does not meet mobility target

As shown in Tables 9 and 10, all study intersections operate at acceptable levels through the 2035 horizon year. No mitigations are recommended. Detailed analysis results are available in Appendix E.

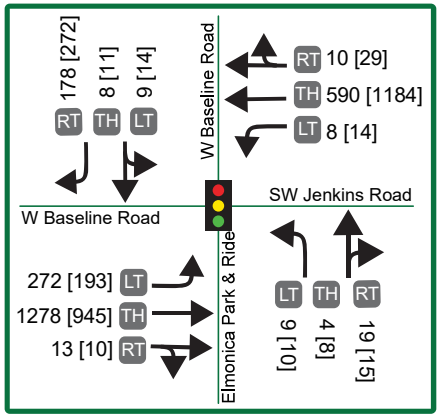




① W Baseline Road at SW 173rd Avenue



② W Baseline Road at SW 170th Avenue



③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

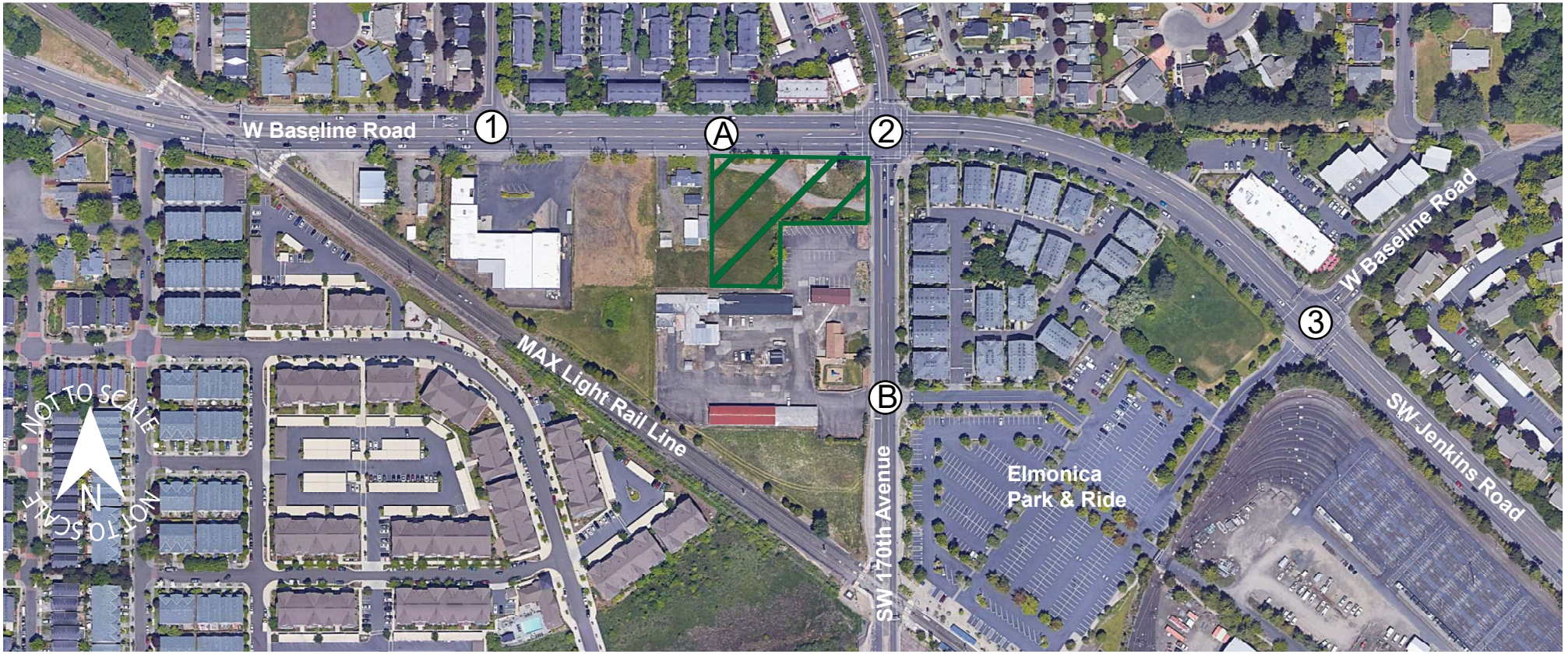
GLOBAL Transportation Engineering

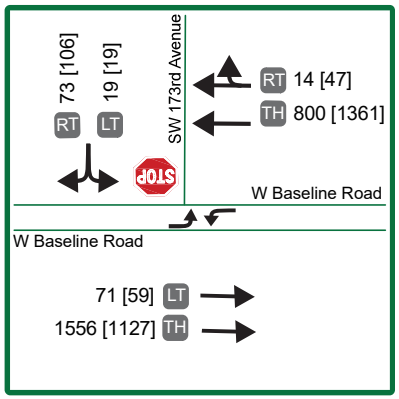
= Project Site = Traffic Signal = Study Intersection = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

AM [PM] = Peak Hour Volumes

Figure 12: Traffic Volumes 2035 Horizon Year Background Conditions





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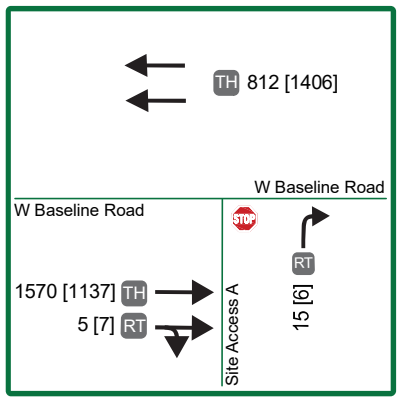
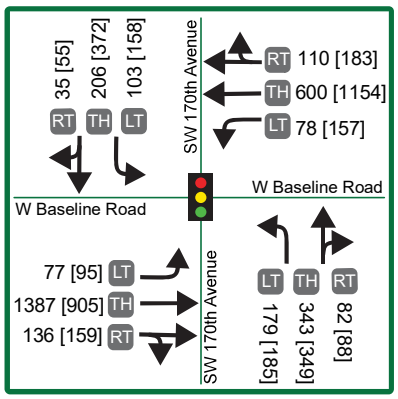
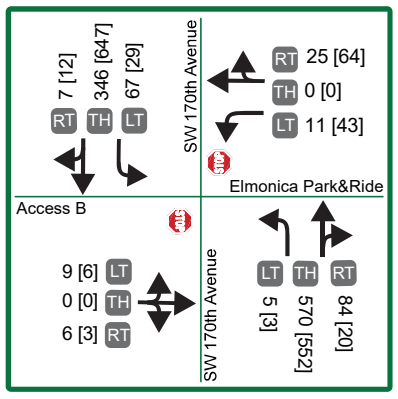


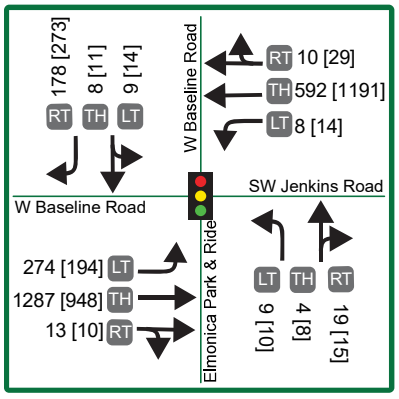
Ⓐ W Baseline Road at Site Access A



② W Baseline Road at SW 170th Avenue



Ⓑ SW 170th Avenue at Site Access B



③ W Baseline Road / SW Jenkins Road at Elmonica Park & Ride

GLOBAL Transportation Engineering

= Project Site = Traffic Signal Ⓧ = Study Intersection STOP = Stop Sign

LT TH RT = Left / Through / Right Turn = Existing Lane Configuration

AM [PM] = Peak Hour Volumes

Figure 13: Traffic Volumes 2035 Horizon Year Buildout Conditions

QUEUEING ANALYSIS

A queueing analysis was completed for all analysis scenarios based on the Synchro operations and SimTraffic analysis. This analysis follows the ODOT's Chapter 7 of the APM-V1 guidelines. This queuing analysis focuses on the turn lanes and the movements that can extend to the existing TriMet Light Rail Crossings. Two TriMet Light Rail Crossings are present in the project vicinity. One line crosses W Baseline Road approximately 1,100 feet west of the intersection at SW 170th Avenue. The other crosses SW 170th Avenue approximately 750 feet south of the intersection at W Baseline Road. Tables 11 and 12 show lane queueing for future volume scenarios modeling the intersections of W Baseline Road at SW 170th Avenue and W Baseline Road at SW Jenkins Road. Detailed queueing data can be found in Appendix F.

Traffic signal timing adjustments were made to the 2035 AM peak hour analysis scenarios based on a preliminary investigation into horizon year queueing at the intersection. All other analysis scenarios utilized existing traffic signal timing.

Table 11: W Baseline Road at SW 170th Avenue Queueing Analysis

AM Peak Hour							
Movement	**EB**	**EB**	**EB**	**WB**	**NB**	**NB**	**SB**
Directions Served	**L**	**T**	**TR**	**L**	**L**	**TR**	**L**
2022 Existing Average	50	225	225	50	125	225	75
2022 Existing 95th Percentile	125	325	325	100	225	350	150
2025 Background Average	75	275	275	50	125	225	75
2025 Background 95th Percentile	200	425	425	100	250	400	150
2025 Buildout Average	75	275	250	50	125	225	75
2025 Buildout 95th Percentile	225	400	400	125	250	375	150
2035 Background Average	100	500	500	75	175	300	100
2035 Background 95th Percentile	**275**	800	800	150	**300**	500	200
2035 Buildout Average	100	675	675	75	200	325	100
2035 Buildout 95th Percentile	**275**	**1250**	**1175**	150	**325**	500	200
PM Peak Hour							
Movement	**EB**	**EB**	**EB**	**WB**	**NB**	**NB**	**SB**
Directions Served	**L**	**T**	**TR**	**L**	**L**	**TR**	**L**
2022 Existing Average	75	225	225	100	125	225	100
2022 Background 95th Percentile	150	325	350	200	250	375	225
2025 Background Average	75	225	225	100	125	225	100
2025 Background 95th Percentile	175	350	350	200	250	375	225
2025 Buildout Average	75	225	225	100	125	225	100
2025 Buildout 95th Percentile	200	350	350	200	225	350	225
2035 Background Average	125	375	375	200	150	300	150
2035 Background 95th Percentile	275	600	600	**400**	**300**	450	**300**
2035 Buildout Average	125	350	350	225	175	325	175
2035 Buildout 95th Percentile	**300**	550	550	**425**	**325**	525	**325**
Turn Lane Storage Bays and Link Lengths							
Existing Storage	235	660[2]	660[2]	370	250	750	260
Recommended for 2025	235[1]	-	-	370[1]	250[1]	-	260[1]
Available Storage from Intersection to Light Rail Tracks		1,100	1,100			750	

Notes: **Bold** = Queue exceeds available storage/link distance
Bold = Queue extends to the TriMet Light Rail Crossing
[1] Queues should be reevaluated closer to horizon year.
[2] Distance to the SW 173rd Avenue intersection.

As shown in Table 11, queueing is accommodated in the existing storage at the intersection of W Baseline Road / SW 170th Avenue for all movements for all analysis scenarios through 2025 buildout. 95th percentile queueing exceeds storage for several movements during the 2035 background and buildout scenarios. The queueing analysis showed that queues for the northbound approach did not extend to the existing TriMet Light Rail Crossing. However, there is a 200-foot long bus pullout that begins 700 feet south of the intersection and ends 500 feet from the intersection. The 2035 95th Percentile queues are shown to have a 95th percentile northbound queue of 525 feet, which may impact these buses. Because the 2025 95th percentile queues and the 2035 average queues do not reach the bus pullout, no mitigation is recommended. Queues should be reevaluated closer to the 2035 horizon year.

During the 2035 AM buildout scenario, the eastbound queues extend past the light rail tracks on W Baseline Road. An eastbound right-turn lane is planned for the intersection of W Baseline Road at SW 170th Avenue based on coordination with Washington County. A mitigations analysis model was run in the following section to determine if adding an eastbound right-turn would alleviate these AM queueing issues.

According to the analysis results, left turn queues exceed the existing storage during the 2035 background and buildout scenarios. No mitigations are currently recommended, but conditions should be reevaluated closer to the horizon year to determine if left turn lanes need to be extended at that time. Left turn lanes can be easily extended by updating the existing striping at the intersection.

Table 12: W Baseline Road / SW Jenkins Road at Elmonica Park & Ride Queueing Analysis

AM Peak Hour					
Movement	**EB**	**WB**	**NB**	**SB**	**SB**
Directions Served	**L**	**L**	**L**	**LT**	**R**
2022 Existing Average	50	25	25	25	50
2022 Existing 95th Percentile	125	25	25	50	75
2025 Background Average	75	25	25	25	50
2025 Background 95th Percentile	150	25	50	50	75
2025 Buildout Average	75	25	25	25	50
2025 Buildout 95th Percentile	150	25	50	50	75
2035 Background Average	100	25	25	25	50
2035 Background 95th Percentile	200	25	50	75	100
2035 Buildout Average	100	25	25	25	50
2035 Buildout 95th Percentile	200	50	50	75	100
PM Peak Hour					
Movement	**EB**	**WB**	**NB**	**SB**	**SB**
Directions Served	**L**	**L**	**L**	**LT**	**R**
2022 Existing Average	75	25	25	25	75
2022 Existing 95th Percentile	125	25	50	75	150
2025 Background Average	75	25	25	25	75
2025 Background 95th Percentile	125	50	50	75	150
2025 Buildout Average	75	25	25	25	75
2025 Buildout 95th Percentile	150	25	50	75	125
2035 Background Average	100	25	25	50	125
2035 Background 95th Percentile	200	100	50	75	200
2035 Buildout Average	125	25	25	50	125
2035 Buildout 95th Percentile	225	125	50	100	200
Turn Lane Storage Bays and Link Lengths					
Existing Storage	270	330	175	300	300
Recommended	270	330	175	300	300
Notes: **Bold** = Queue exceeds available storage/link distance					

As shown in Table 12, all queueing is accommodated for all movements for all scenarios at W Baseline Road / SW Jenkins Road / Elmonica Park & Ride. No mitigations are recommended.

W Baseline Road at SW 170th Avenue Right Turn Lane Analysis

The queuing analysis showed that eastbound queues extend to the existing TriMet Light Rail Crossing under the 2035 AM buildout year scenario. A mitigation analysis was conducted for the 2035 horizon year to determine if adding an eastbound right turn lane at the intersection of W Baseline Road / SW 170th Avenue would reduce eastbound queueing. Table 13 shows the queueing results for the intersection of W Baseline Road at SW 170th Avenue. Traffic signal timing was adjusted for the AM peak hour analysis and existing signal timing was used for the PM peak hour analysis.

Table 13: W Baseline Road at SW 170th Avenue Queueing Analysis with EB Right Turn Lane

AM Peak Hour								
Movement	**EB**	**EB**	**EB**	**EBR**	**WB**	**NB**	**NB**	**SB**
Directions Served	**L**	**T**	**T**	**R**	**L**	**L**	**TR**	**L**
2035 Buildout Average	100	375	375	125	100	175	325	100
2035 Buildout 95th Percentile	**250**	600	600	300	175	**325**	525	200
PM Peak Hour								
2035 Buildout Average	100	275	275	125	225	150	275	150
2035 Buildout 95th Percentile	225	400	400	300	**450**	**275**	425	**300**
Turn Lane Storage Bays and Link Lengths								
Existing Storage	235	660	660	-	370	250	750	260
Recommended	250	-	-	300	370[1]	250[1]	-	260[1]
Available Storage from Intersection to Light Rail Tracks	-	1100	1100	-	-	-	750	-

Notes: **Bold** = Queue exceeds available storage/link distance
Bold = Queue extends to the TriMet Light Rail Crossing
[1] Queues should be reevaluated closer to horizon year.

As shown in Table 13, adding the eastbound right-turn lane to the intersection of W Baseline Road at SW 170th Avenue reduces the eastbound queueing along the corridor and the 95th percentile queues do not extend to the TriMet Light Rail Crossing. Because this issue does not arise for the 2025 buildout conditions and only appears when the two-percent background growth is applied to the horizon year volumes, this mitigation is not recommended for 2025. However, it is recommended to provide right of way to build the eastbound right turn lane in the future.

The northbound 95th percentile queues continue to reach the bus pullout between 500 and 700 feet south of the W Baseline Road at SW 170th Avenue intersection under this mitigation scenario. As was recommended in the previous analysis, no mitigation is recommended for this bus pullout as the 2025 95th percentile queues and 2035 average queues do not reach the bus pullout. Queues should be reevaluated closer to the 2035 horizon year.

Detailed mitigation queueing data can be found in Appendix G.

MITIGATIONS AND SUMMARY

This memorandum summarizes the traffic impact analysis associated with the proposed Elmonica development to be located at 17030 W Baseline Road in Beaverton, Oregon. Two TriMet Light Rail Crossings are present in the project vicinity. One line crosses W Baseline Road approximately 1,100 feet west of the intersection at SW 170th Avenue. The other crosses SW 170th Avenue approximately 750 feet south of the intersection at W Baseline Road.

This analysis evaluated existing and background traffic patterns, as well as potential impacts to the transportation network for the buildout years of 2025 and 2035, based on the standards established by the City of Beaverton and Washington County. A summary of the results and recommendations is described below.

Crash Data Analysis

Five years of crash data was evaluated. The crash analysis indicates that no crash patterns are present at the study intersections. No crash mitigations are recommended.

Sight Distance Evaluation

Sight distance was evaluated for the proposed shared right-in and right-out access on W Baseline Road and the proposed emergency right-out access on SW 170th Avenue. The analysis shows that intersection and stopping sight distance is met at the two access points. The existing trees located on the northwest quadrant of the W Baseline Road and SW 170th Avenue intersection are located within the clear sight triangle. However, trees do not create a solid wall and vehicle visibility is not impacted. Based on this analysis, no mitigations are recommended.

Potential obstructions such as signing, landscaping, or structures that may result in blocking the sightlines to less than the allowable standard shall not be permitted as part of this development.

Intersection Operations

An intersection performance analysis was conducted to document the existing, 2025 year of opening, and 2035 horizon year operations for the study intersections. The capacity analysis showed that all intersections operate at acceptable performance levels for all analysis scenarios. No capacity mitigations are recommended.

Queuing Analysis

The queueing analysis showed that queues for the northbound approach at W Baseline Road / SW 170th Avenue did not extend to the existing TriMet Light Rail Crossing. Eastbound queues at the W Baseline Road / SW 170th Avenue intersection extended to the light rail crossing during the 2035 AM buildout year scenario.

Based on coordination with Washington County, a right turn lane is planned for the intersection of W Baseline Road at SW 170th Avenue. A mitigation analysis was conducted for the 2035 buildout year scenario to determine if adding the eastbound right turn lane at the intersection of W Baseline Road / SW 170th Avenue would reduce eastbound queueing. Based on the analysis, adding the eastbound right turn lane to the intersection of W Baseline Road at SW 170th Avenue reduces the eastbound queueing along the corridor and the 95th percentile queues do not extend to the TriMet Light Rail Crossing. Because this issue does not arise for the 2025 buildout conditions and only appears when the two-percent background growth is applied to the horizon year volumes, this mitigation is not recommended for 2025. However, it is recommended to provide right-of-way to allow the installation of the eastbound right turn lane in the future.

According to the analysis results, the left turn queues at the W Baseline Road and SW 170th Avenue intersection exceed the existing storage at 2035 background and buildout conditions. No mitigations are recommended for 2025, but conditions should be reevaluated closer to the 2035 horizon year to determine if left turn lanes need to be extended at that time.

For all 2035 analysis scenarios, the 95th percentile northbound queues reach a bus pullout between 500 and 700 feet south of the intersection of W Baseline Road at SW 170th Avenue. Because the 2025

95th percentile queues and 2035 average queues do not reach the pullout, no mitigation is recommended. However, queues should be reevaluated closer to the 2035 horizon year.

Based on coordination with TriMet and ODOT, the Elmonica Development will add signing and striping to the light rail crossing on W Baseline Road in order to mitigate potential eastbound queueing and improve safety at the crossing. These rail order plans are included in Appendix H.

Appendix

Appendix A: Access Points

ElMonica Access Between Properties

Neighboring Development
Shared Access
Right-In/Right-Out

ElMonica Access
Emergency Access
Only

ACCESS POINTS

Appendix B: Crash Data

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 170TH AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

1 - 4 of 27 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N V	S I H L	C O R K	W	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL TRLR OWNER TYPE	USE QTY	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
05993	N	N	N		N	N		11/15/2019	16	W BASELINE RD	INTER	CROSS	N	Y	CLD	FIX OBJ	01	NONE	9	STRGHT										062	10
CITY								FR	0	SW 170TH AVE	UN		TRF SIGNAL	N	DRY	FIX		N/A		UN-UN									000		00
N								11P			00	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
N								45 30 45.14	-122 51 7.18																	UNK					
06323	N	N	N		N	N		10/12/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE	9	STRGHT											29
CITY								TH	0	SW 170TH AVE	N		TRF SIGNAL	N	WET	REAR		N/A		N -S									000		00
N								11P			06	0		N	DLIT	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
N								45 30 45.14	-122 51 7.18																	UNK					
																	02	NONE	9	STOP											
																		N/A		N -S									011		00
																		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
																										UNK					
01740	N	N	N					04/09/2018	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT											29
NONE								MO	0	SW 170TH AVE	N		TRF SIGNAL	N	DRY	REAR		PRVTE		N -S									000		00
N								5P			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	20	F	OR-Y		026	000		29
N								45 30 45.14	-122 51 7.18																	OR<25					
																	02	NONE	0	STOP											
																		UNKN		N -S									012		00
																		PSNGR CAR			01	DRVR	INJC	32		OR-Y		000	000		00
																										OR<25					
04984	Y	N	N					07/25/2018	16	W BASELINE RD	INTER	CROSS	N	N	CLR	ANGL-STP	01	NONE	0	TURN-R											01,32
CITY								WE	0	SW 170TH AVE	N		TRF SIGNAL	N	DRY	TURN		UNKN		E -N									000		00
N								12P			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	18	M	OR-Y		047,052	017		01,32
N								45 30 45.14	-122 51 7.18																	OR<25					
																	02	NONE	0	STOP											
																		PRVTE		N -S									012		00
																		PSNGR CAR			01	DRVR	INJB	51	M	OR-Y		000	000		00
																										OR<25					
																	03	NONE	0	STOP											
																		PRVTE		N -S									022		00
																		PSNGR CAR			01	DRVR	NONE	31	M	OR-Y		000	000		00
																										OR<25					
02304	N	N	N					04/08/2016	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT											29
NONE								FR	0	SW 170TH AVE	E		TRF SIGNAL	N	DRY	REAR		PRVTE		E -W									000		00
N								9A			06	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	31	M	OR-Y		026	000		29
N								45 30 45.14	-122 51 7.18																	OR>25					
																	02	NONE	0	STOP											
																		PRVTE		E -W									011		00
																		PSNGR CAR			01	DRVR	INJC	45	F	OR-Y		000	000		00
																										OR<25					

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 170TH AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

5 - 9 of 27 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N V	S I H L	C O R K	W DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / TYPE / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																02	NONE 0 PRVTE PSNGR CAR	STOP E -W	02	PSNG	INJC	17	F			000	011 000		00 00
08013	N	N	N				11/22/2016 CITY N N	16 TU 0 6P 45 30 45.14	W BASELINE RD SW 170TH AVE -122 51 7.18	INTER E 05	CROSS 0	N TRF SIGNAL	N N	RAIN WET DLIT	PED PED INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L N -E	01	DRVR	NONE	43	M	OR-Y OR<25		029	000 000	124	02 00 02
																		- STRGHT S N	01	PED	INJA	54	F		I XWLK	000	035		00
05474	N	N	N	N	N		09/07/2017 CITY N N	16 TH 0 6A 45 30 45.14	W BASELINE RD SW 170TH AVE -122 51 7.18	INTER E 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAWN	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	27	M	OR-Y OR<25		026,052	000 000		29,32 00 29,32
																02	NONE 0 PRVTE PSNGR CAR	STOP E -W	01	DRVR	INJC	36	M	OR-Y OR<25		000	011 000		00 00
00138	N	N	N				01/07/2017 COUNTY N N	16 SA 0 2P 45 30 45.14	W BASELINE RD SW 170TH AVE -122 51 7.18	INTER E 06	CROSS 0	N TRF SIGNAL	N N	SNOW ICE DAY	S-1STOP REAR PDO	01	NONE 9 N/A PSNGR CAR	STRGHT E -W	01	DRVR	NONE	00	Unk	UNK UNK		000	000	124	29 00 00
																02	NONE 9 N/A PSNGR CAR	STOP E -W	01	DRVR	NONE	00	Unk	UNK UNK		000	011 000		00 00
06340	N	N	N				12/02/2019 NONE N N	16 MO 0 7A 45 30 45.14	W BASELINE RD SW 170TH AVE -122 51 7.18	INTER E 06	CROSS 0	N TRF SIGNAL	N N	CLR ICE DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	NONE	65	M	OR-Y OR<25		026	000 000	124	29 00 29
																02	NONE 0 PRVTE PSNGR CAR	STOP E -W	01	DRVR	INJA	28	M	OR-Y OR<25		000	011 000		00 00

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 170TH AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

10 - 13 of 27 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N S	I H V	C O R L	W K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER	V#	TYPE	MOVE / FROM / TO	P#	TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00746	N	N	N		N		N	02/06/2020	16	W BASELINE RD	INTER	CROSS	N	N	CLD	PED															04
CITY								TH	0	SW 170TH AVE	E		TRF SIGNAL	N	DRY	PED				-										
N								7P			05	0		N	DLIT	INJ				STRGHT	01	CONV	INJB	12	M		I XWLK	020	035		04
N								45 30 45.14 -122 51 7.18												N S											
																		01	NONE 0	STRGHT											
																	PRVTE			W -E									000		00
																	PSNGR CAR				01	DRVR	NONE	44	M	OR-Y OR<25		000	000		00
04659	N	N	N					07/15/2016	16	W BASELINE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 0	STRGHT												29
NONE								FR	0	SW 170TH AVE	S		TRF SIGNAL	N	DRY	REAR	PRVTE			S -N									000		00
N								7P			06	0		N	DAY	INJ	PSNGR CAR				01	DRVR	NONE	53	F	OR-Y		026	000		29
N								45 30 45.14 -122 51 7.18																			OR<25					
																		02	NONE 0	STOP											
																	PRVTE			S -N									011		00
																	PSNGR CAR				01	DRVR	INJC	37	M	OR-Y OR<25		000	000		00
08652	N	N	N					12/14/2016	16	W BASELINE RD	INTER	CROSS	N	N	SNOW	ANGL-STP	01	NONE 9	TURN-R												124	08
NONE								WE	0	SW 170TH AVE	S		TRF SIGNAL	N	ICE	TURN	N/A			W -S									000		00
N								5P			06	0		N	DUSK	PDO	PSNGR CAR				01	DRVR	NONE	00	Unk	UNK		000	000		00
N								45 30 45.14 -122 51 7.18																			UNK					
																		02	NONE 9	STOP											
																	N/A			S -N									012		00
																	PSNGR CAR				01	DRVR	NONE	00	Unk	UNK		000	000		00
																											UNK					
07425	N	N	N					11/22/2017	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	S-1STOP	01	NONE 0	STRGHT													29
NONE								WE	0	SW 170TH AVE	S		TRF SIGNAL	N	WET	REAR	PRVTE			S -N									000		00
N								6P			06	0		N	DLIT	INJ	PSNGR CAR				01	DRVR	NONE	26	M	OR-Y		026	000		29
N								45 30 45.14 -122 51 7.18																			OR<25					
																		02	NONE 0	STOP											
																	PRVTE			S -N									011		00
																	PSNGR CAR				01	DRVR	INJC	22	F	OR-Y OR<25		000	000		00
07807	N	N	N					11/14/2016	16	W BASELINE RD	INTER	CROSS	N	N	CLD	PED	01	NONE 0	TURN-L													02
CITY								MO	0	SW 170TH AVE	W		TRF SIGNAL	N	WET	PED	PRVTE			S -W									000		00
N								9P			05	0		N	DLIT	INJ	PSNGR CAR				01	DRVR	NONE	39	F	OR-Y		029	000		02
N								45 30 45.14 -122 51 7.18																			OR<25					

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	M R J U G S	S	W I N V	C H L	O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																			- STRGHT N S	01	PED	INJB	16	M		I XWLK	000	035		00
06602	N	N	N					10/22/2017 SU 2P 45 30 45.14	16 0 -122 51 7.18	W BASELINE RD SW 170TH AVE SW 170TH AVE	INTER W 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E											29 00
NONE N N																				01	DRVR	NONE	23	F	OR-Y OR<25		026	000		29
																	02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	INJC	38	F	OR-Y OR<25		000	011 000		00 00
07902	N	N	N					12/10/2017 SU 11A 45 30 45.14	16 0 -122 51 7.18	W BASELINE RD SW 170TH AVE SW 170TH AVE	INTER W 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E											29 00
NO RPT N N																				01	DRVR	INJC	75	F	OR-Y OR<25		026	000		29
																	02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	INJC	61	F	OR-Y OR<25		000	011 000		00 00
03858	N	N	N					07/26/2018 TH 5P 45 30 45.14	16 0 -122 51 7.18	W BASELINE RD SW 170TH AVE SW 170TH AVE	INTER W 06	CROSS 0	N TRF SIGNAL	N N	CLR DRY DAY	S-1STOP REAR INJ	01	NONE 0 PRVTE PSNGR CAR	STRGHT W -E											29 00
NONE N N																				01	DRVR	NONE	29	F	OR-Y OR<25		026	000		29
																	02	NONE 0 PRVTE PSNGR CAR	STOP W -E	01	DRVR	INJC	35	F	OR-Y OR<25		000	011 000		00 00
00938	N	N	N	N	N			02/24/2019 CITY SU 2A 45 30 45.14	16 0 -122 51 7.18	W BASELINE RD SW 170TH AVE SW 170TH AVE	INTER W 05	CROSS 0	N TRF SIGNAL	N N	RAIN WET DARK	PED PED INJ	01	NONE 0 PRVTE PSNGR CAR	TURN-L S -W											02 00
N N																				01	DRVR	NONE	36	M	OR-Y OR<25		029	000		02
																			- STRGHT S N	01	PED	INJC	24	M		I XWLK	000	035		00
																			- STRGHT S N	02	PED	INJC	24	F		I XWLK	000	035		00

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 170TH AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

19 - 23 of 27 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00300	N	N	N		N	N	01/12/2016	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE 0	STRGHT											02
CITY							TU	0	SW 170TH AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -N								000		00
N							11A			04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	28	F	OR-Y		000	000		00
N							45 30 45.14	-122 51 7.18																OR<25					
																02	NONE 0	TURN-L											
																	PRVTE	N -E									000		00
																	PSNGR CAR		01	DRVR	INJC	83	F	OR-Y		028	000		02
																								OR<25					
07891	N	N	N				12/09/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT											27,04
CITY							SA	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE	S -N								000		00
N							11A			02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	51	M	OR-Y		000	000		00
N							45 30 45.14	-122 51 7.18																OR<25					
																02	NONE 0	STRGHT											
																	PRVTE	E -W									000		00
																	PSNGR CAR		01	DRVR	INJC	27	M	OR-Y		016,020	038		27,04
																								OR<25					
05260	N	N	N				08/28/2017	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 9	STRGHT										087	02
CITY							MO	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		N/A	W -E								000		00
N							2P			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							45 30 45.14	-122 51 7.18																UNK					
																02	NONE 9	TURN-L											
																	N/A	E -S									000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
01920	N	N	N				04/17/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE 0	STRGHT											02
NONE							WE	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE	N -S								000		00
N							6P			01	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	20	F	OR-Y		000	000		00
N							45 30 45.14	-122 51 7.18																OR<25					
																02	NONE 0	TURN-L											
																	PRVTE	S -W									000		00
																	PSNGR CAR		01	DRVR	INJC	33	F	OR-Y		028,004	000		02
																								OR<25					
05874	N	N	N				11/09/2019	16	W BASELINE RD	INTER	CROSS	N	N	RAIN	O-1 L-TURN	01	NONE 0	TURN-L										001	02
CITY							SA	0	SW 170TH AVE	CN		TRF SIGNAL	N	WET	TURN		PRVTE	S -W								000		00
N							9P			01	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	39	M	OTH-Y		028,004	000		02
N							45 30 45.14	-122 51 7.18																N-RES					
																02	NONE 0	STRGHT											
																	PRVTE	N -S									000		00
																	MOPED		01	DRVR	INJB	24	M	SUSP		000	000	001	00
																								OR<25					

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N H V	S I C L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR / OWNER	QTY	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
04953	N	N	N				09/27/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	9	TURN-L											02
CITY							FR	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		N/A		W -N									000		00
N							6A			02	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
N							45 30 45.14	-122 51 7.18																		UNK					
																02	NONE	9	STRGHT											
																	N/A		E -W									000		00
																	PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
																										UNK				
05574	N	N	N				10/19/2019	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	9	STRGHT											02
NONE							SA	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		N/A		E -W									000		00
N							4P			02	0		N	DAY	PDO		PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
N							45 30 45.14	-122 51 7.18																		UNK					
																02	NONE	9	TURN-L											
																	N/A		W -N									000		00
																	PSNGR CAR			01	DRVR	NONE	00	Unk	UNK		000	000		00
																										UNK				
04548	N	N	N		N	N	12/09/2020	16	W BASELINE RD	INTER	CROSS	N	N	CLR	O-1 L-TURN	01	NONE	0	TURN-L										013,094	02
CITY							WE	0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	TURN		PRVTE		W -N									000	013	00
N							1P			02	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	18	F	N-VAL		004,028,097	000		02
N							45 30 45.14	-122 51 7.18																		OR<25					
																01	NONE	0	TURN-L											
																	PRVTE		W -N									000	013	00
																	PSNGR CAR			02	PSNG	INJC	26	F			000	000		00
																01	NONE	0	TURN-L											
																	PRVTE		W -N									000	013	00
																	PSNGR CAR			03	PSNG	INJC	07	M			000	000		00
																01	NONE	0	TURN-L											
																	PRVTE		W -N									000	013	00
																	PSNGR CAR			04	PSNG	INJC	04	F			000	000		00
																02	NONE	0	STRGHT											
																	PRVTE		E -W									000	013	00
																	PSNGR CAR			01	DRVR	INJC	23	M	OR-Y		000	000		00
																										OR<25				
																02	NONE	0	STRGHT											
																	PRVTE		E -W									000	013	00
																	PSNGR CAR			02	PSNG	INJC	53	F			000	000		00
																02	NONE	0	STRGHT											
																	PRVTE		E -W									000	013	00
																	PSNGR CAR			03	PSNG	INJC	35	F			000	000		00

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 170TH AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

26 - 27 of 27 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																03	NONE 0	STOP										
																	PRVTE	N -S								011		00
																	PSNGR CAR		01	DRVR	NONE	60	M	OR-Y		000	000		00
																								OR<25					
01601	N	N	N				04/09/2020	16	W BASELINE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	STRGHT									115	02,04,27
CITY				TH				0	SW 170TH AVE	CN		TRF SIGNAL	N	DRY	ANGL		N/A	S -N								000		00
N				7P						02	0		N	DUSK	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N				45 30 45.14				-122 51 7.18																UNK					
																02	NONE 9	STRGHT										
																	N/A	E -W								000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 173RD AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

1 - 4 of 7 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL TRLR OWNER TYPE	USE QTY	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
03421	N	N	N		N	N	07/03/2019	16	W BASELINE RD	INTER	3-LEG	N	N	CLD	S-OTHER	01	NONE	9	TURN-L											121	08,33
CITY			WE				0	SW 173RD AVE	N		STOP SIGN	N	DRY	TURN			N/A		W -N									000		00
N			7P							05	0		N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N			45 30 45.08	-122 51 17.14																					UNK					
																02	NONE	9	TURN-L											
																	N/A		W -N									000		00
																	PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																									UNK					
02245	N	N	N				04/06/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	0	STRGHT										013	29
NONE			WE				0	SW 173RD AVE	W		STOP SIGN	N	DRY	REAR			PRVTE		W -E									000		00
N			7A							06	0		N	DAY	INJ		PSNGR	CAR		01	DRVR	NONE	73	F	OR-Y		026	000		29
N			45 30 45.08	-122 51 17.14																					OR<25					
																02	NONE	0	STOP											
																	PRVTE		W -E									011	022	00
																	PSNGR	CAR		01	DRVR	INJC	39	F	OR-Y		000	000		00
																									OR<25					
																03	NONE	0	STOP											
																	PRVTE		W -E									022		00
																	PSNGR	CAR		01	DRVR	NONE	89	M	OTH-Y		000	000		00
																									N-RES					
04194	N	N	N				06/21/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE	9	TURN-L											02
NO RPT			TU				0	SW 173RD AVE	CN		STOP SIGN	N	DRY	TURN			N/A		W -N									000		00
N			3P							02	0		N	DAY	PDO		PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N			45 30 45.08	-122 51 17.14																					UNK					
																02	NONE	9	STRGHT											
																	N/A		E -W									000		00
																	PSNGR	CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																									UNK					
04480	N	N	N		N	N	09/04/2019	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE	0	TURN-L											02
CITY			WE				0	SW 173RD AVE	CN		STOP SIGN	N	DRY	TURN			UNKN		W -N									000		00
N			10A							02	0		N	DAY	INJ		PSNGR	CAR		01	DRVR	NONE	76	M	OR-Y		028,004	000		02
N			45 30 45.08	-122 51 17.14																					OR<25					
																02	NONE	0	STRGHT											
																	PRVTE		E -W									000		00
																	PSNGR	CAR		01	DRVR	INJB	39	F	OR-Y		000	000		00
																									OR<25					
05205	N	N	N				10/10/2019	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	S-1TURN	01	NONE	0	STRGHT											08
NO RPT			TH				0	SW 173RD AVE	CN		STOP SIGN	N	DRY	TURN			PRVTE		W -E									000		00
N			10A							04	0		N	DAY	INJ		PSNGR	CAR		01	DRVR	NONE	47	F	OR-Y		000	000		00
N			45 30 45.08	-122 51 17.14																					OR<25					

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at 173RD AVE, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

5 - 7 of 7 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	M R U G S	J N V	S I H L	C O R K	W	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																	02	NONE 0 PRVTE PSNGR CAR	TURN-L W -N	01	DRVR	INJB	26	M	OR-Y OR<25		006	000 000		00 08
04771	N	N	N	N	N			09/17/2019	16	W BASELINE RD	INTER	3-LEG	N	N	RAIN	S-1TURN	01	NONE 0	STRGHT											02
CITY			TU					0	SW 173RD AVE	CN		STOP SIGN	N	WET	TURN			PRVTE	W -E									000		00
N N			6P					45 30 45.08 -122 51 17.14			03	0	N	DAY	INJ			PSNGR CAR		01	DRVR	NONE	20	F	OR-Y OR<25		028	000		02
																	02	AMBLN 0 PRVTE PSNGR CAR	U-TURN W -W	01	DRVR	INJC	25	M	OR-Y OR<25		000	000 000		00 00
03281	N	N	N	N	N			09/08/2020	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE 0	TURN-L											040,062,010	02
CITY			TU					0	SW 173RD AVE	CN		TRF SIGNAL	N	DRY	TURN			PRVTE	W -N									000		00
N N			5P					45 30 45.09 -122 51 17.16			02	0	N	DAY	INJ			PSNGR CAR		01	DRVR	NONE	28	M	OR-Y OR<25		004,028	000		02
																	02	NONE 0 PRVTE PSNGR CAR	STRGHT E -W	01	DRVR	INJA	44	F	OR-Y OR<25		000	000 000	040,062,010	00 00

URBAN NON-SYSTEM CRASH LISTING

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at JENKINS RD, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

1 - 4 of 14 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E E D	A L C	D R U G S	M J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
08115	N	N	N				11/26/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 9	STRGHT											29
NONE							SA	0	SW JENKINS RD	NE		TRF SIGNAL	N	WET	REAR		N/A	NE-SW									000		00
N							1P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							45 30 41.75	-122 50 56.43																UNK					
																02	NONE 9	STOP											
																	N/A	NE-SW									011		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
05753	N	N	N		N	N	10/26/2018	16	W BASELINE RD	INTER	3-LEG	N	Y	RAIN	FIX OBJ	01	NONE 9	TURN-L										062,079	08
CITY							FR	0	SW JENKINS RD	NE		TRF SIGNAL	N	WET	FIX		N/A	NW-NE									000		00
N							3P			05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							45 30 41.75	-122 50 56.43																UNK					
05312	N	N	N		N	N	10/16/2019	16	W BASELINE RD	INTER	3-LEG	N	N	RAIN	BIKE	01	NONE 0	TURN-R											04
CITY							WE	0	SW JENKINS RD	NE		TRF SIGNAL	N	WET	TURN		PRVTE	NE-NW									000		00
N							8A			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	31	F	OR-Y		000	000		00
N							45 30 41.75	-122 50 56.43																OR<25					
																		-											
																		STRGHT	01	BIKE	INJB	51	M		I XWLK	020	035		04
																		NW SE											
05077	N	N	N		N	N	09/26/2018	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	PED	01	NONE 1	TURN-R											02
CITY							WE	0	SW JENKINS RD	SE		TRF SIGNAL	N	DRY	PED		PRVTE	SW-SE									018		00
N							6P			05	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	NONE	43	M	OR-Y		029	000		02
N							45 30 41.75	-122 50 56.43																OR<25					
																		-											
																		STRGHT	01	PED	INJB	35	F		I XWLK	000	000		00
																		SE NW											
06047	Y	Y	N		N	N	09/09/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	ANGL-STP	01	NONE 0	TURN-R											01,08
CITY							FR	0	SW JENKINS RD	SW		TRF SIGNAL	N	DRY	TURN		PRVTE	NW-SW									019		00
N							7P			06	0		Y	DAY	INJ		PSNGR CAR		01	DRVR	INJC	17	M	OR-Y		001,047	000		01,08
N							45 30 41.75	-122 50 56.43																OR<25					
																01	NONE 0	TURN-R											
																	PRVTE	NW-SW									019		00
																	PSNGR CAR		02	PSNG	INJC	17	M			000	000		00

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	M R J U G S	S I N V	W C H L	O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR / OWNER	QTY	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																02	NONE PRVTE PSNGR CAR	0	STOP SW-NE	01	DRVR	INJC	47	F	OR-Y OR<25		000	011 000		00 00
02242	N	N	N	N	N		04/06/2016	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE	0	STRGHT										087	32
CITY							WE	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE		SE-NW									000	087	00
N N							5P 45 30 41.75	-122 50 56.43		02	0		N	DAY	INJ		PSNGR CAR			01	DRVR	INJB	35	F	OTH-Y OR<25		000	000		00
																02	NONE PRVTE PSNGR CAR	0	TURN-L NW-NE	01	DRVR	NONE	39	M	NONE OR<25		052	000 000	087	00 32
01490	N	N	N	N	N		03/17/2017	16	W BASELINE RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01	NONE	0	TURN-L										013	04,32
CITY							FR	0	SW JENKINS RD	CN		TRF SIGNAL	N	WET	TURN		PRVTE		NW-NE									000		00
N N							4P 45 30 41.75	-122 50 56.43		02	0		N	DAY	INJ		PSNGR CAR			01	DRVR	NONE	54	M	OR-Y OR<25		020,052	000		04,32
																02	NONE PRVTE PSNGR CAR	0	STRGHT SE-NW	01	DRVR	INJB	45	F	OR-Y OR<25		000	000 000	013	00 00
																03	NONE PRVTE PSNGR CAR	0	STRGHT NE-SW	01	DRVR	NONE	44	F	OR-Y OR<25		000	022 000		00 00
04596	N	N	N				07/28/2017	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01	NONE	0	TURN-L											02,32
CITY							FR	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	TURN		PRVTE		NW-NE									000		00
N N							12P 45 30 41.75	-122 50 56.43		02	0		N	DAY	INJ		PSNGR CAR			01	DRVR	INJC	60	M	OR-Y OR<25		004,028,052	000		02,32
																02	NONE PRVTE PSNGR CAR	0	STRGHT SE-NW	01	DRVR	INJB	31	M	OR-Y OR<25		000	000 000		00 00
07567	Y	N	N				11/28/2017	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01	NONE	0	STRGHT											04,01,33
CITY							TU	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	ANGL		PRVTE		SE-NW									000		00
N N							2P 45 30 41.75	-122 50 56.43		01	0		Y	DAY	INJ		PSNGR CAR			01	DRVR	INJC	36	F	OTH-Y N-RES		000	000		00
																01	NONE PRVTE PSNGR CAR	0	STRGHT SE-NW	02	PSNG	INJC	71	F			000	000 000		00 00

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at JENKINS RD, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

9 - 13 of 14 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S D M / P R J S W / E A U I C O / E L G N H R / D C S V L K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V# SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	PRTC P# TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
											02 NONE 0	STRGHT										
											STOLN	NE-SW								000		00
											PSNGR CAR		01 DRVR	INJA	26	M	NONE		020,047,073	000		04,01,33
																	OR<25					
05630	N N N N N	09/13/2017	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 9	STRGHT										04
CITY		WE	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	ANGL	N/A	SE-NW								000		00
N		7P			02	0		Y	DAY	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000	000		00
N		45 30 41.75	-122 50														UNK					
			56.43																			
											02 NONE 9	STRGHT										
											N/A	SW-NE								018		00
											PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000	000		00
																	UNK					
08190	N N N	12/20/2017	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01 NONE 9	TURN-L										02
NONE		WE	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	TURN	N/A	NW-NE								000		00
N		7P			02	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000	000		00
N		45 30 41.75	-122 50														UNK					
			56.43																			
											02 NONE 9	STRGHT										
											N/A	SE-NW								000		00
											PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000	000		00
																	UNK					
03518	N N N N N	07/10/2018	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	ANGL-OTH	01 NONE 0	TURN-L										04
CITY		TU	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	TURN	PRVTE	NE-SE								000		00
N		9P			01	0		N	DLIT	INJ	PSNGR CAR		01 DRVR	NONE	25	M	OTH-Y		020	000		04
N		45 30 41.75	-122 50														N-RES					
			56.43																			
											02 NONE 0	STRGHT										
											PRVTE	SE-NW								000		00
											PSNGR CAR		01 DRVR	INJC	23	M	OR-Y		000	000		00
																	OR<25					
01733	N N N N N	04/07/2019	16	W BASELINE RD	INTER	3-LEG	N	N	RAIN	O-1 L-TURN	01 NONE 0	TURN-L									010	02
CITY		SU	0	SW JENKINS RD	CN		TRF SIGNAL	N	WET	TURN	PRVTE	SE-SW								000		00
N		2P			03	0		Y	DAY	INJ	PSNGR CAR		01 DRVR	NONE	35	M	OR-Y		028,004	000		02
N		45 30 41.72	-122 50														OR<25					
			56.41																			
											02 NONE 0	STRGHT										
											PRVTE	NW-SE								000		00
											PSNGR CAR		01 DRVR	INJC	63	M	OR-Y		000	000		00
																	OR<25					
03100	N N N	08/26/2020	16	W BASELINE RD	INTER	3-LEG	N	N	CLR	O-1 L-TURN	01 NONE 9	STRGHT										02,04
CITY		WE	0	SW JENKINS RD	CN		TRF SIGNAL	N	DRY	TURN	N/A	SE-NW								000		00
N		9P			02	0		N	DLIT	PDO	PSNGR CAR		01 DRVR	NONE	00	Unk	UNK		000	000		00
N		45 30 41.75	-122 50														UNK					
			56.43																			

CITY OF BEAVERTON, WASHINGTON COUNTY

BASELINE RD at JENKINS RD, City of Beaverton, Washington County, 01/01/2016 to 12/31/2020

14 - 14 of 14 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D R U G S	M J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER / V# / TYPE	MOVE / FROM / TO / P# / TYPE	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES / LOC	PED / ERROR	ACT EVENT	CAUSE
																02 NONE 9	TURN-L							
																N/A	NW-NE						000	00
																PSNGR CAR	01 DRVR	NONE	00	Unk	UNK	000	000	00
																					UNK			

Appendix C: Traffic Count Data

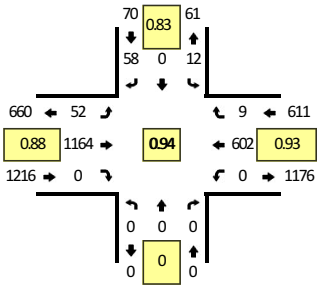
Type of peak hour being reported: Intersection Peak

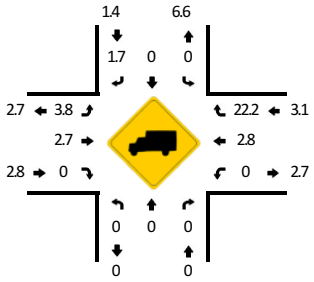
Method for determining peak hour: Total Entering Volume

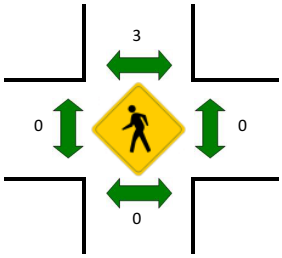
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

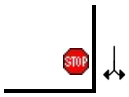
QC JOB #: 15708501
DATE: Tue, Feb 15 2022

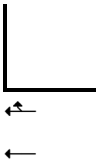
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

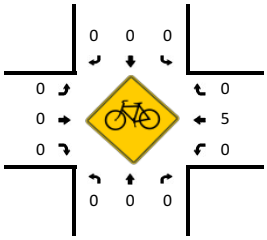


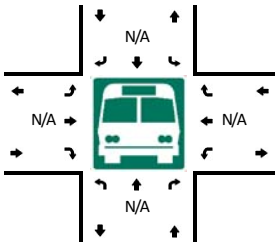


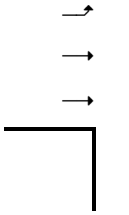


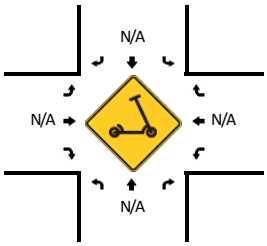












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	2	0	6	0	5	73	0	0	0	39	1	0	126	
7:05 AM	0	0	0	0	0	0	1	0	1	85	0	0	0	34	1	0	122	
7:10 AM	0	0	0	0	3	0	3	0	1	86	0	0	0	38	1	0	132	
7:15 AM	0	0	0	0	4	0	2	0	1	70	0	0	0	34	0	0	111	
7:20 AM	0	0	0	0	3	0	9	0	1	75	0	0	0	57	2	0	147	
7:25 AM	0	0	0	0	0	0	6	0	2	115	0	0	0	60	0	0	183	
7:30 AM	0	0	0	0	0	0	5	0	4	97	0	0	0	47	0	0	153	
7:35 AM	0	0	0	0	2	0	8	0	5	93	0	0	0	45	0	0	153	
7:40 AM	0	0	0	0	1	0	3	0	4	118	0	0	0	40	0	0	166	
7:45 AM	0	0	0	0	0	0	6	0	3	121	0	0	0	55	0	0	185	
7:50 AM	0	0	0	0	0	0	2	0	4	83	0	0	0	40	2	0	131	
7:55 AM	0	0	0	0	0	0	3	0	8	98	0	0	0	56	1	0	166	1775
8:00 AM	0	0	0	0	2	0	7	0	2	107	0	0	0	52	1	0	171	1820
8:05 AM	0	0	0	0	0	0	5	0	2	89	0	0	0	52	2	0	150	1848
8:10 AM	0	0	0	0	3	0	2	0	4	74	0	0	0	48	0	0	131	1847
8:15 AM	0	0	0	0	2	0	7	0	7	90	0	0	0	52	2	0	160	1896
8:20 AM	0	0	0	0	2	0	4	0	7	79	0	0	0	55	1	0	148	1897
8:25 AM	0	0	0	0	1	0	4	0	3	77	0	0	0	45	0	0	130	1844
8:30 AM	0	0	0	0	0	0	3	0	4	51	0	0	0	32	0	0	90	1781
8:35 AM	0	0	0	0	1	0	3	0	4	88	0	0	0	40	0	0	136	1764
8:40 AM	0	0	0	0	0	0	7	0	6	81	0	0	0	47	2	0	143	1741
8:45 AM	0	0	0	0	1	0	3	0	11	73	0	0	0	42	0	0	130	1686
8:50 AM	0	0	0	0	1	0	6	0	2	88	0	0	0	35	0	0	132	1687
8:55 AM	0	0	0	0	1	0	3	0	1	71	0	0	0	45	0	0	121	1642

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	12	0	68	0	48	1328	0	0	0	560	0	0	2016
Heavy Trucks	0	0	0		0	0	0		0	44	0		0	12	0		56
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

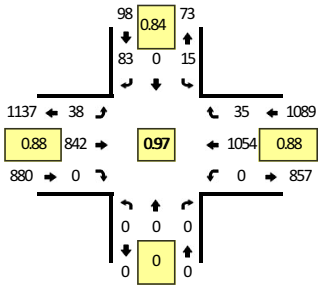
Type of peak hour being reported: Intersection Peak

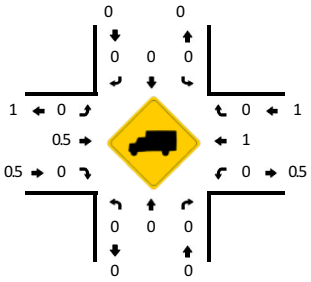
Method for determining peak hour: Total Entering Volume

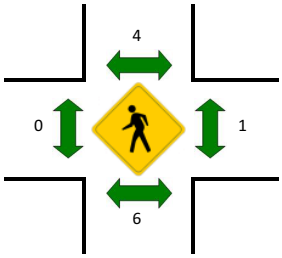
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

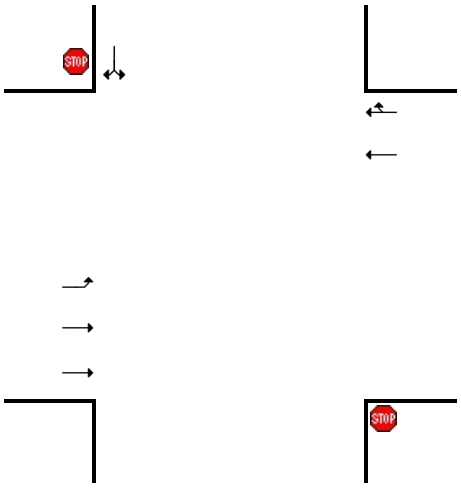
QC JOB #: 15708502
DATE: Tue, Feb 15 2022

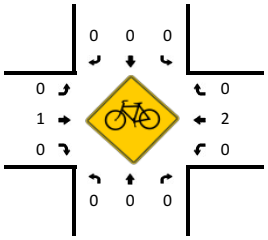
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:35 PM -- 4:50 PM

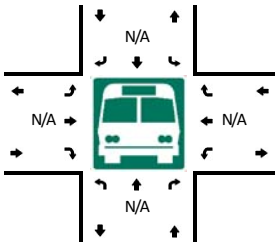


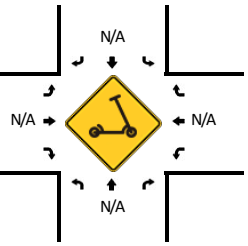












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	3	0	10	0	4	62	0	0	0	90	4	0	173	
4:05 PM	0	0	0	0	0	0	5	0	7	69	0	0	0	80	3	0	164	
4:10 PM	0	0	0	0	0	0	7	0	3	61	0	0	0	98	4	0	173	
4:15 PM	0	0	0	0	0	0	13	0	6	86	0	0	0	80	5	0	190	
4:20 PM	0	0	0	0	0	0	4	0	10	74	0	0	0	67	4	0	159	
4:25 PM	0	0	0	0	0	0	8	0	5	61	0	0	0	94	0	0	168	
4:30 PM	0	0	0	0	2	0	8	0	3	50	0	0	0	94	5	0	162	
4:35 PM	0	0	0	0	2	0	9	0	4	70	0	0	0	99	3	0	187	
4:40 PM	0	0	0	0	2	0	5	0	5	57	0	0	0	105	3	0	177	
4:45 PM	0	0	0	0	2	0	5	0	2	81	0	0	0	74	4	0	168	
4:50 PM	0	0	0	0	0	0	6	0	2	76	0	0	0	97	2	0	183	
4:55 PM	0	0	0	0	1	0	4	0	2	64	0	0	0	76	2	0	149	2053
5:00 PM	0	0	0	0	1	0	10	0	2	74	0	0	0	92	3	0	182	2062
5:05 PM	0	0	0	0	1	0	7	0	5	68	0	0	0	76	3	0	160	2058
5:10 PM	0	0	0	0	1	0	7	0	3	76	0	0	0	87	2	0	176	2061
5:15 PM	0	0	0	0	3	0	7	0	1	70	0	0	0	63	6	0	150	2021
5:20 PM	0	0	0	0	0	0	7	0	4	95	0	0	0	97	2	0	205	2067
5:25 PM	0	0	0	0	0	0	3	0	5	60	0	0	0	75	1	0	144	2043
5:30 PM	0	0	0	0	0	0	6	0	4	46	0	0	0	84	5	0	145	2026
5:35 PM	0	0	0	0	2	0	7	0	5	62	0	0	0	72	3	0	151	1990
5:40 PM	0	0	0	0	0	0	6	0	2	62	0	0	0	109	1	0	180	1993
5:45 PM	0	0	0	0	2	0	4	0	2	62	0	0	0	75	3	0	148	1973
5:50 PM	0	0	0	0	1	0	5	0	5	65	0	0	0	102	2	0	180	1970
5:55 PM	0	0	0	0	0	0	4	0	1	59	0	0	0	74	1	0	139	1960

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	76	0	44	832	0	0	0	1112	40	0	2128
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	12	0		20
Buses																	
Pedestrians		4				0				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

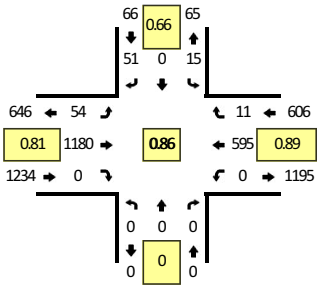
Type of peak hour being reported: Intersection Peak

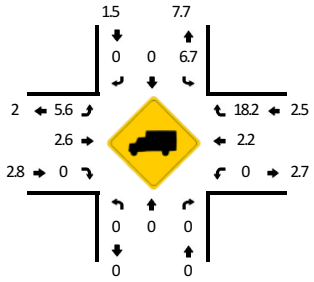
Method for determining peak hour: Total Entering Volume

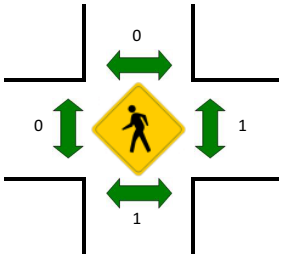
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

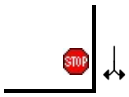
QC JOB #: 15708503
DATE: Wed, Feb 16 2022

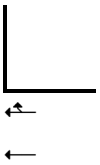
Peak-Hour: 7:15 AM -- 8:15 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

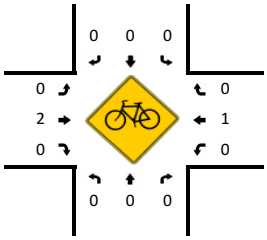


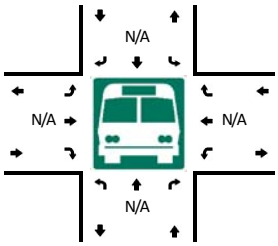


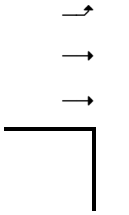


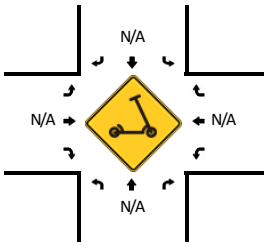












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	2	0	4	0	2	57	0	0	0	35	0	0	100	
7:05 AM	0	0	0	0	1	0	3	0	1	80	0	0	0	38	1	0	124	
7:10 AM	0	0	0	0	2	0	0	0	0	96	0	0	0	35	0	0	133	
7:15 AM	0	0	0	0	2	0	2	0	2	86	0	0	0	56	1	0	149	
7:20 AM	0	0	0	0	2	0	4	0	6	77	0	0	0	66	0	0	155	
7:25 AM	0	0	0	0	2	0	7	0	2	105	0	0	0	30	2	0	148	
7:30 AM	0	0	0	0	1	0	7	0	5	111	0	0	0	33	0	0	157	
7:35 AM	0	0	0	0	1	0	7	0	2	91	0	0	0	53	2	0	156	
7:40 AM	0	0	0	0	0	0	2	0	8	114	0	0	0	49	1	0	174	
7:45 AM	0	0	0	0	1	0	2	0	4	116	0	0	0	66	0	0	189	
7:50 AM	0	0	0	0	0	0	3	0	5	132	0	0	0	52	2	0	194	
7:55 AM	0	0	0	0	1	0	5	0	2	96	0	0	0	45	1	0	150	1829
8:00 AM	0	0	0	0	3	0	5	0	9	101	0	0	0	52	2	0	172	1901
8:05 AM	0	0	0	0	1	0	3	0	3	64	0	0	0	56	0	0	127	1904
8:10 AM	0	0	0	0	1	0	4	0	6	87	0	0	0	37	0	0	135	1906
8:15 AM	0	0	0	0	1	0	3	0	5	72	0	0	0	66	0	0	147	1904
8:20 AM	0	0	0	0	1	0	2	0	3	61	0	0	0	47	2	0	116	1865
8:25 AM	0	0	0	0	1	0	5	0	4	100	0	0	0	48	0	0	158	1875
8:30 AM	0	0	0	0	3	0	4	0	1	75	0	0	0	40	2	0	125	1843
8:35 AM	0	0	0	0	3	0	5	0	6	94	0	0	0	41	0	0	149	1836
8:40 AM	0	0	0	0	0	0	3	0	3	64	0	0	0	46	4	0	120	1782
8:45 AM	0	0	0	0	0	0	4	0	3	80	0	0	0	49	0	0	136	1729
8:50 AM	0	0	0	0	1	0	5	0	2	66	0	0	0	33	2	0	109	1644
8:55 AM	0	0	0	0	0	0	1	0	6	75	0	0	0	47	0	0	129	1623

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	4	0	28	0	68	1448	0	0	0	668	12	0	2228
Heavy Trucks	0	0	0		0	0	0		4	32	0		0	24	0		60
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	4	0		0	4	0		8
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

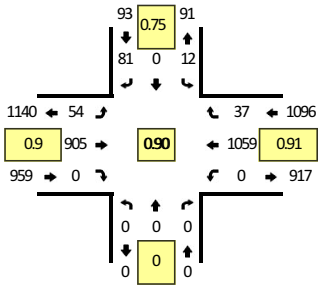
Type of peak hour being reported: Intersection Peak

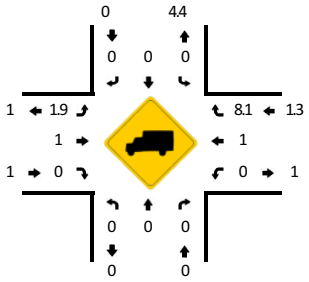
Method for determining peak hour: Total Entering Volume

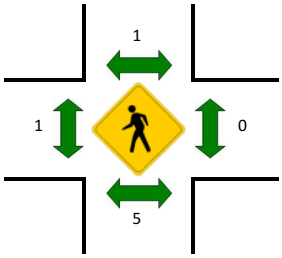
LOCATION: SW 173rd Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

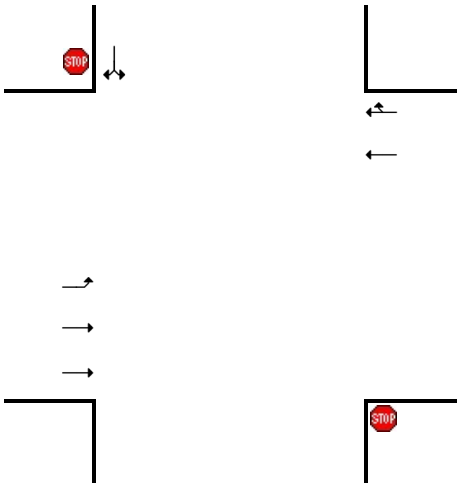
QC JOB #: 15708504
DATE: Wed, Feb 16 2022

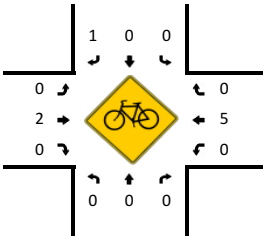
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

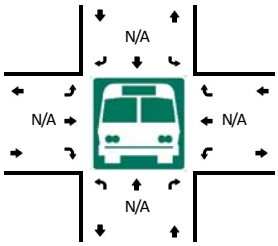


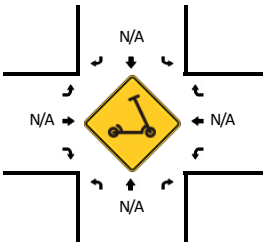












5-Min Count Period Beginning At	SW 173rd Ave (Northbound)				SW 173rd Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	8	0	2	66	0	0	0	85	2	0	163	
4:05 PM	0	0	0	0	0	0	4	0	6	69	0	0	0	80	1	0	160	
4:10 PM	0	0	0	0	0	0	18	0	3	62	0	0	0	116	5	0	204	
4:15 PM	0	0	0	0	1	0	13	0	1	45	0	0	0	68	2	0	130	
4:20 PM	0	0	0	0	2	0	7	0	7	84	0	0	0	101	2	0	203	
4:25 PM	0	0	0	0	1	0	10	0	7	54	0	0	0	80	3	0	155	
4:30 PM	0	0	0	0	0	0	5	0	6	82	0	0	0	101	2	0	196	
4:35 PM	0	0	0	0	2	0	12	0	4	56	0	0	0	74	0	0	148	
4:40 PM	0	0	0	0	1	0	4	0	3	85	0	0	0	97	2	0	192	
4:45 PM	0	0	0	0	1	0	7	0	3	92	0	0	0	83	6	0	192	
4:50 PM	0	0	0	0	1	0	11	0	6	81	0	0	0	96	1	0	196	
4:55 PM	0	0	0	0	1	0	6	0	3	63	0	0	0	69	2	0	144	2083
5:00 PM	0	0	0	0	0	0	3	0	4	64	0	0	0	84	3	0	158	2078
5:05 PM	0	0	0	0	2	0	7	0	6	81	0	0	0	58	2	0	156	2074
5:10 PM	0	0	0	0	2	0	9	0	2	75	0	0	0	130	4	0	222	2092
5:15 PM	0	0	0	0	3	0	8	0	6	79	0	0	0	85	1	0	182	2144
5:20 PM	0	0	0	0	0	0	7	0	7	97	0	0	0	78	4	0	193	2134
5:25 PM	0	0	0	0	0	0	8	0	4	65	0	0	0	85	4	0	166	2145
5:30 PM	0	0	0	0	1	0	3	0	6	64	0	0	0	107	4	0	185	2134
5:35 PM	0	0	0	0	1	0	4	0	5	64	0	0	0	82	3	0	159	2145
5:40 PM	0	0	0	0	0	0	8	0	2	80	0	0	0	102	3	0	195	2148
5:45 PM	0	0	0	0	1	0	9	0	5	54	0	0	0	87	0	1	157	2113
5:50 PM	0	0	0	0	1	0	7	0	5	71	0	0	0	86	0	0	170	2087
5:55 PM	0	0	0	0	0	0	5	0	5	61	0	1	0	74	4	0	150	2093

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	96	0	60	1004	0	0	0	1172	36	0	2388
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	20	0		28
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	8	0		8
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

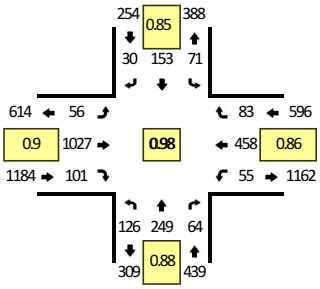
Type of peak hour being reported: Intersection Peak

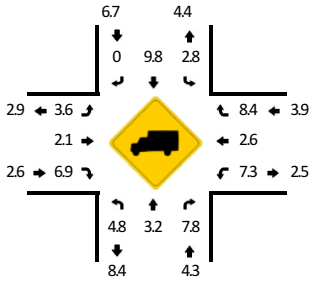
Method for determining peak hour: Total Entering Volume

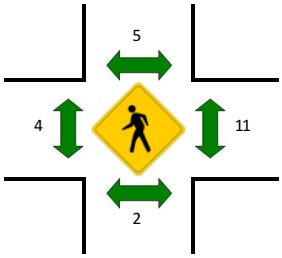
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

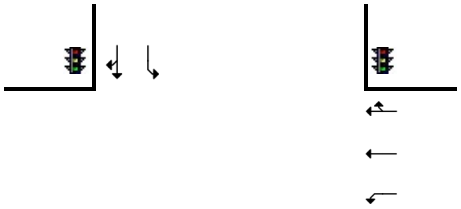
QC JOB #: 15708505
DATE: Tue, Feb 15 2022

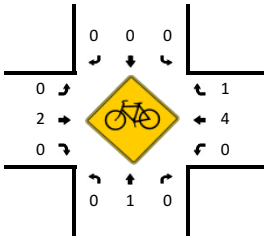
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

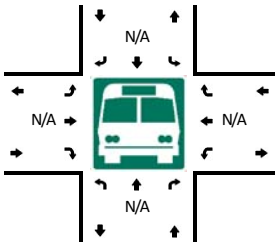


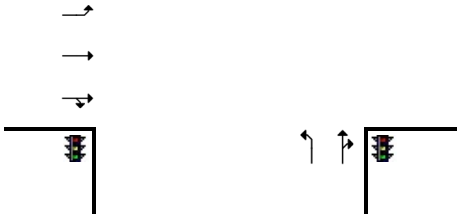


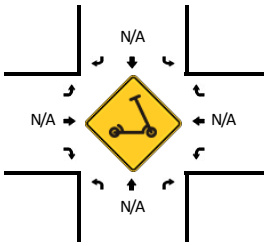












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	10	16	5	0	4	11	0	0	2	68	8	0	3	28	5	0	160	
7:05 AM	9	21	4	0	5	13	6	0	2	73	10	0	1	23	3	0	170	
7:10 AM	8	17	3	0	2	18	1	0	5	73	10	0	5	30	4	0	176	
7:15 AM	12	33	5	0	6	19	1	0	1	52	4	0	8	25	4	0	170	
7:20 AM	9	19	2	0	4	13	2	0	0	77	8	0	4	47	4	0	189	
7:25 AM	9	16	7	0	9	11	3	0	7	113	5	0	4	46	2	0	232	
7:30 AM	14	18	10	0	11	14	3	0	3	88	8	0	1	35	5	0	210	
7:35 AM	9	23	6	0	6	12	6	0	3	78	7	0	4	29	6	0	189	
7:40 AM	10	29	6	0	3	17	2	0	3	104	13	0	4	24	4	0	219	
7:45 AM	10	24	4	0	3	11	3	0	3	106	10	0	1	44	6	0	225	
7:50 AM	9	24	2	0	2	18	2	0	3	80	8	0	4	30	7	0	189	
7:55 AM	12	21	3	0	5	9	0	0	6	87	4	0	5	46	9	0	207	2336
8:00 AM	9	26	2	0	8	8	1	0	6	85	14	0	5	44	9	0	217	2393
8:05 AM	13	18	2	0	5	9	3	0	6	75	7	0	4	38	6	0	186	2409
8:10 AM	9	19	7	0	5	20	3	0	5	66	5	0	3	41	11	0	194	2427
8:15 AM	18	20	11	0	10	15	3	0	7	58	11	0	10	34	10	0	207	2464
8:20 AM	4	11	4	0	4	9	1	0	4	87	9	0	10	47	8	0	198	2473
8:25 AM	11	21	7	0	10	13	2	0	4	70	8	0	5	39	5	0	195	2436
8:30 AM	5	15	9	0	11	8	2	0	6	38	4	0	7	19	3	0	127	2353
8:35 AM	4	22	2	0	4	9	1	0	10	69	13	0	5	34	10	0	183	2347
8:40 AM	8	13	1	0	9	9	2	0	4	68	8	0	3	39	2	0	166	2294
8:45 AM	13	23	5	0	6	11	2	0	5	67	6	0	2	33	4	0	177	2246
8:50 AM	8	13	6	0	1	11	2	0	7	76	2	0	6	22	4	0	158	2215
8:55 AM	9	27	10	0	4	8	0	0	8	59	11	0	0	33	5	0	174	2182

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	116	304	64	0	48	160	44	0	36	1152	120	0	36	388	64	0	2532
Heavy Trucks	4	4	8		4	16	0		4	20	16		0	8	4		88
Buses																	
Pedestrians		4				0				8				0			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

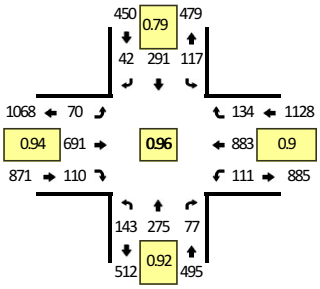
Type of peak hour being reported: Intersection Peak

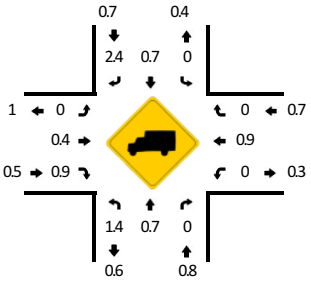
Method for determining peak hour: Total Entering Volume

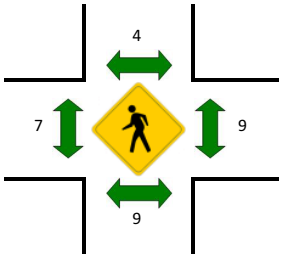
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

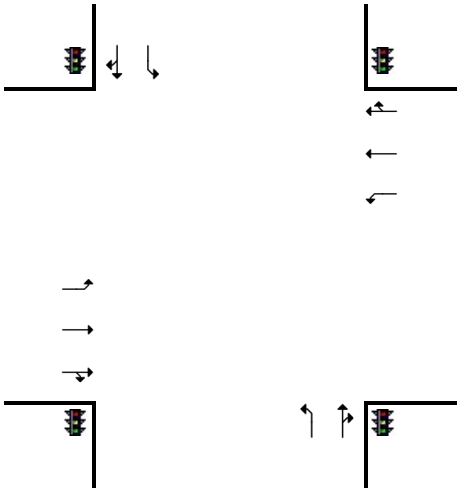
QC JOB #: 15708506
DATE: Tue, Feb 15 2022

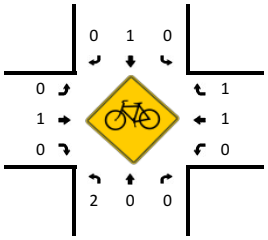
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

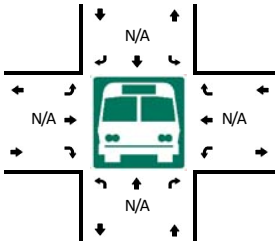


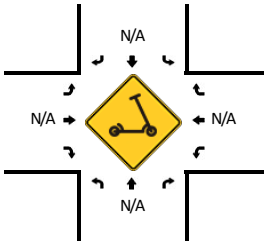












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	12	16	4	0	11	25	2	0	2	47	11	0	9	74	8	0	221	
4:05 PM	15	12	7	0	13	16	3	0	8	55	9	0	3	64	12	0	217	
4:10 PM	14	18	3	0	8	17	2	0	6	48	4	0	10	90	12	0	232	
4:15 PM	15	28	10	0	12	29	8	0	8	44	10	0	12	58	9	0	243	
4:20 PM	6	16	6	0	8	18	3	0	6	49	16	0	9	78	12	0	227	
4:25 PM	16	22	8	0	7	29	6	0	9	67	10	0	5	59	3	0	241	
4:30 PM	18	25	2	0	9	9	4	0	7	45	8	0	5	93	6	0	231	
4:35 PM	11	24	5	0	10	28	3	0	10	49	7	0	12	71	7	0	237	
4:40 PM	11	21	3	0	15	16	7	0	4	55	8	0	8	95	16	0	259	
4:45 PM	20	20	11	0	7	35	3	0	7	49	9	0	13	55	5	0	234	
4:50 PM	10	9	4	0	6	17	1	0	3	67	14	0	13	84	12	0	240	
4:55 PM	9	34	11	0	13	34	4	0	4	60	11	0	3	69	9	0	261	2843
5:00 PM	16	14	5	0	6	17	1	0	5	57	8	0	11	69	13	0	222	2844
5:05 PM	11	30	4	0	16	29	5	0	8	62	7	0	4	61	18	0	255	2882
5:10 PM	14	30	5	0	13	25	2	0	8	59	8	0	13	77	9	0	263	2913
5:15 PM	9	24	8	0	6	45	1	0	5	62	12	0	5	56	16	0	249	2919
5:20 PM	7	17	8	0	8	17	4	0	5	61	5	0	13	91	14	0	250	2942
5:25 PM	7	27	11	0	8	19	7	0	4	65	13	0	11	62	9	0	243	2944
5:30 PM	12	7	8	0	9	26	2	0	4	32	10	0	14	74	10	0	208	2921
5:35 PM	12	22	5	0	5	24	6	0	1	53	12	0	9	55	7	0	211	2895
5:40 PM	17	16	2	0	15	17	5	0	4	44	6	0	9	91	15	0	241	2877
5:45 PM	7	33	6	0	6	25	5	0	7	50	11	0	8	66	7	0	231	2874
5:50 PM	7	1	0	0	11	10	2	0	3	41	8	0	5	93	12	0	193	2827
5:55 PM	13	21	13	0	4	20	4	0	5	60	13	0	8	60	15	0	236	2802

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	336	68	0	140	396	32	0	84	732	108	0	88	776	172	0	3068
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	4	0		8
Buses																	
Pedestrians		0				0				4				12			16
Bicycles	0	0	0		0	4	0		0	4	0		0	0	4		12
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

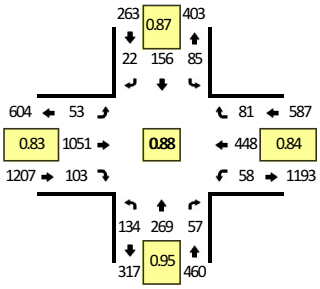
Type of peak hour being reported: Intersection Peak

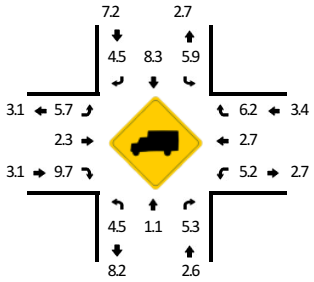
Method for determining peak hour: Total Entering Volume

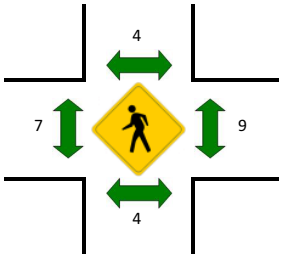
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

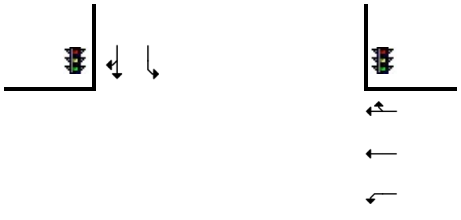
QC JOB #: 15708507
DATE: Wed, Feb 16 2022

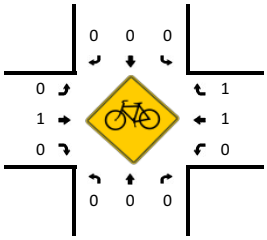
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

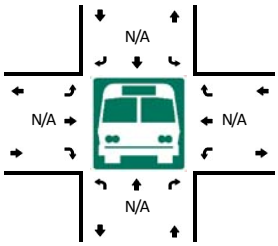


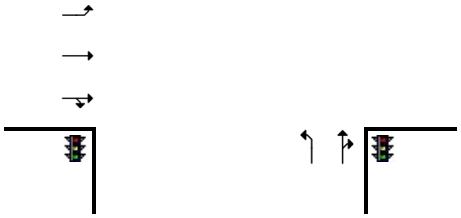


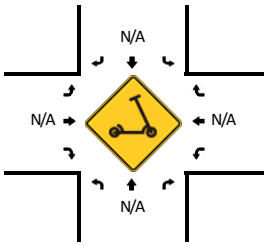












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	13	1	0	3	10	0	0	4	56	10	0	2	23	6	0	136	
7:05 AM	13	25	7	0	2	19	2	0	2	70	9	0	2	24	1	0	176	
7:10 AM	6	19	8	0	3	16	3	0	2	83	10	0	4	31	5	0	190	
7:15 AM	11	27	4	0	6	12	2	0	2	58	4	0	5	48	4	0	183	
7:20 AM	16	32	4	0	2	19	3	0	3	94	8	0	6	36	3	0	226	
7:25 AM	8	9	3	0	5	10	2	0	3	91	6	0	3	23	6	0	169	
7:30 AM	9	32	4	0	12	10	3	0	2	101	9	0	0	29	10	0	221	
7:35 AM	10	19	4	0	8	17	2	0	3	79	10	0	2	35	4	0	193	
7:40 AM	9	22	6	0	5	12	2	0	5	100	10	0	7	38	10	0	226	
7:45 AM	20	9	3	0	11	9	1	0	5	104	8	0	5	50	7	0	232	
7:50 AM	11	28	6	0	6	14	0	0	7	118	7	0	1	47	10	0	255	
7:55 AM	12	27	3	0	10	9	2	0	3	77	14	0	8	21	6	0	192	2399
8:00 AM	14	19	1	0	5	8	0	0	6	96	10	0	8	41	10	0	218	2481
8:05 AM	13	16	9	0	6	11	1	0	2	58	8	0	4	44	4	0	176	2481
8:10 AM	4	34	6	0	5	23	2	0	7	72	9	0	7	43	6	0	218	2509
8:15 AM	8	22	8	0	10	14	4	0	7	61	4	0	7	41	5	0	191	2517
8:20 AM	10	15	7	0	3	5	1	0	8	48	6	0	7	39	6	0	155	2446
8:25 AM	10	19	11	0	13	7	4	0	3	83	12	0	5	34	5	0	206	2483
8:30 AM	14	24	2	0	8	10	2	0	8	60	8	0	2	25	7	0	170	2432
8:35 AM	4	20	8	0	9	14	5	0	3	83	14	0	2	33	6	0	201	2440
8:40 AM	6	23	1	0	6	16	2	0	4	57	5	0	4	40	12	0	176	2390
8:45 AM	9	21	4	0	6	8	2	0	5	68	7	0	4	39	7	0	180	2338
8:50 AM	8	22	8	0	3	12	6	0	3	54	5	0	10	23	2	0	156	2239
8:55 AM	10	19	4	0	7	9	1	0	11	52	8	0	2	34	2	0	159	2206

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	160	236	60	0	88	140	12	0	68	1288	100	0	52	540	108	0	2852
Heavy Trucks	8	0	0		4	8	0		0	28	8		0	16	8		80
Buses																	
Pedestrians		0				4				12				4			20
Bicycles	0	0	0		0	0	0		0	4	0		0	0	4		8
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

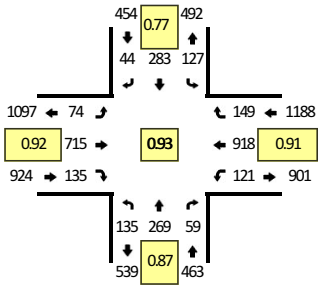
Type of peak hour being reported: Intersection Peak

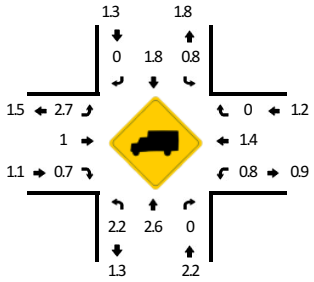
Method for determining peak hour: Total Entering Volume

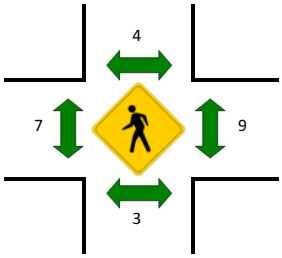
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

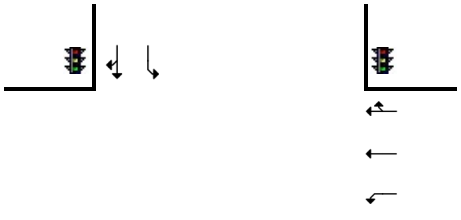
QC JOB #: 15708508
DATE: Wed, Feb 16 2022

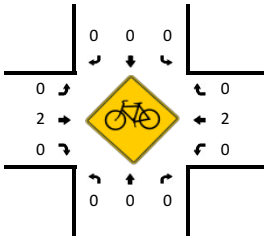
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:20 PM -- 5:35 PM

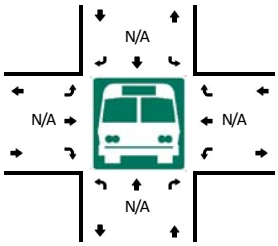


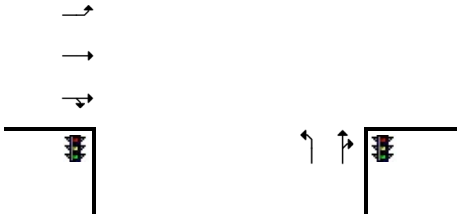


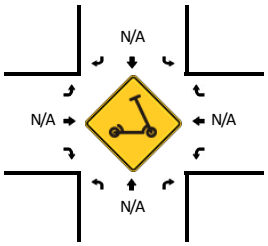












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	8	6	0	12	25	4	0	8	49	4	0	10	77	7	0	221	
4:05 PM	9	27	6	0	9	40	5	0	8	51	12	0	8	64	10	0	249	
4:10 PM	12	14	5	0	14	17	4	0	3	55	7	0	16	107	13	0	267	
4:15 PM	12	25	7	0	11	36	8	0	4	42	11	0	9	58	7	0	230	
4:20 PM	18	10	5	0	21	21	6	0	8	68	8	0	5	69	11	0	250	
4:25 PM	2	23	4	0	1	17	4	0	6	44	7	0	4	83	7	0	202	
4:30 PM	18	25	5	0	14	20	2	0	7	54	11	0	5	75	9	0	245	
4:35 PM	9	23	10	0	11	29	2	0	6	53	6	0	8	68	14	0	239	
4:40 PM	17	21	6	0	13	24	2	0	9	60	13	0	13	71	13	0	262	
4:45 PM	11	32	5	0	7	22	6	0	6	70	11	0	9	74	11	0	264	
4:50 PM	8	16	3	0	13	14	2	0	8	62	10	0	11	88	11	0	246	
4:55 PM	6	23	7	0	6	23	5	0	7	63	6	0	4	61	11	0	222	2897
5:00 PM	10	19	3	0	8	13	3	0	4	46	9	0	6	71	15	0	207	2883
5:05 PM	10	28	4	0	13	27	4	0	8	58	15	0	6	64	14	0	251	2885
5:10 PM	11	13	3	0	10	19	4	0	5	62	16	0	12	109	16	0	280	2898
5:15 PM	14	31	6	0	10	38	7	0	5	51	4	0	8	59	6	0	239	2907
5:20 PM	10	18	2	0	15	27	4	0	6	74	19	0	14	75	10	0	274	2931
5:25 PM	9	36	7	0	10	33	3	0	5	51	11	0	8	79	11	0	263	2992
5:30 PM	15	16	4	0	13	24	1	0	5	68	12	0	18	91	13	0	280	3027
5:35 PM	14	16	9	0	9	19	3	0	6	50	9	0	12	76	18	0	241	3029
5:40 PM	13	15	3	0	7	19	1	0	6	60	10	0	4	81	16	0	235	3002
5:45 PM	11	35	5	0	8	23	2	0	3	39	5	0	13	83	7	0	234	2972
5:50 PM	9	14	4	0	10	15	3	0	6	64	8	0	20	68	16	0	237	2963
5:55 PM	19	25	11	0	14	30	4	0	11	48	6	0	5	51	9	0	233	2974

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	280	52	0	152	336	32	0	64	772	168	0	160	980	136	0	3268
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	12	0		16
Buses																	
Pedestrians		0				8				4				20			32
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

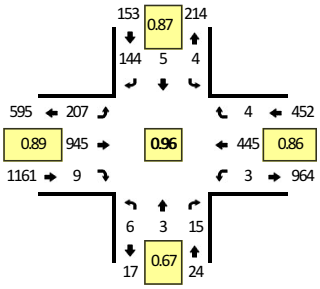
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

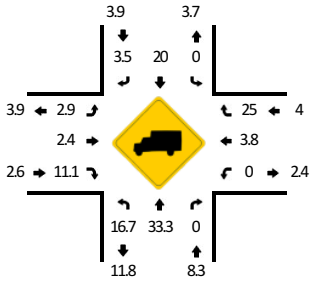
LOCATION: W Baseline Rd/Park and Ride Ent -- W Baseline Rd/SW Jenkins Rd | **QC JOB #:** 15708509

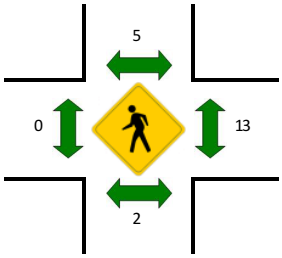
CITY/STATE: Beaverton, OR | **DATE:** Tue, Feb 15 2022

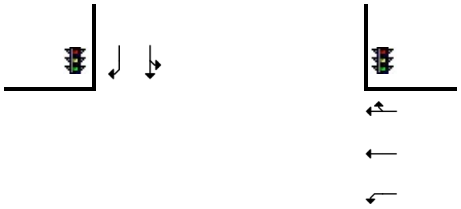
Peak-Hour: 7:25 AM -- 8:25 AM

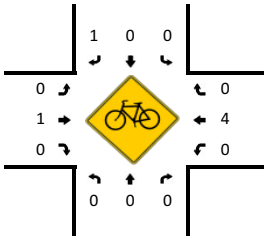
Peak 15-Min: 7:40 AM -- 7:55 AM

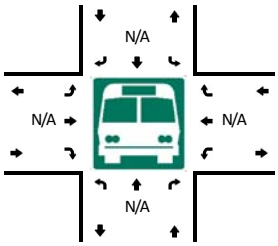


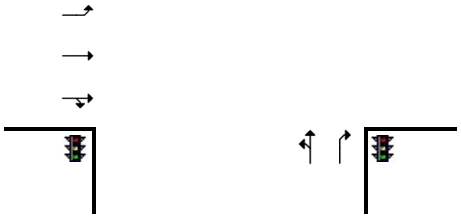


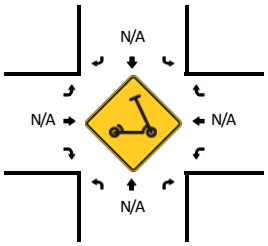












5-Min Count Period Beginning At	W Baseline Rd/Park and Ride Ent (Northbound)				W Baseline Rd/Park and Ride Ent (Southbound)				W Baseline Rd/SW Jenkins Rd (Eastbound)				W Baseline Rd/SW Jenkins Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	1	6	0	12	62	1	0	0	28	1	0	111	
7:05 AM	1	0	1	0	0	0	12	0	8	81	1	0	0	17	0	0	121	
7:10 AM	1	1	1	0	0	1	9	0	8	61	2	0	0	30	0	0	114	
7:15 AM	0	0	2	0	1	0	18	0	11	56	1	0	0	29	0	0	118	
7:20 AM	1	0	0	0	1	0	7	0	2	73	0	0	0	33	0	0	117	
7:25 AM	0	0	0	0	0	0	18	0	18	103	1	0	0	33	0	0	173	
7:30 AM	1	0	2	0	1	0	9	0	23	89	2	0	0	33	0	0	160	
7:35 AM	2	0	0	0	2	0	12	0	12	58	2	0	0	26	0	0	114	
7:40 AM	0	0	2	0	0	0	10	0	20	112	0	0	1	21	0	0	166	
7:45 AM	1	0	2	0	1	0	9	0	13	81	0	0	0	39	1	0	147	
7:50 AM	0	1	3	0	0	3	9	0	20	78	1	0	0	39	1	0	155	
7:55 AM	0	1	1	0	0	0	13	0	22	75	2	0	0	42	0	0	156	1652
8:00 AM	0	0	2	0	0	0	8	0	20	74	1	0	0	47	0	0	152	1693
8:05 AM	0	0	2	0	0	1	13	0	12	56	0	0	1	37	0	0	122	1694
8:10 AM	2	0	1	0	0	0	9	0	12	73	0	0	0	47	0	0	144	1724
8:15 AM	0	0	0	0	0	0	17	0	21	66	0	0	1	34	0	0	139	1745
8:20 AM	0	1	0	0	0	1	17	0	14	80	0	0	0	47	2	0	162	1790
8:25 AM	2	0	0	0	0	0	18	0	17	47	2	0	0	30	2	0	118	1735
8:30 AM	1	0	0	0	1	0	7	0	17	55	1	0	0	22	0	0	104	1679
8:35 AM	0	0	1	0	0	0	10	0	12	63	1	0	0	35	0	0	122	1687
8:40 AM	0	0	0	0	0	0	8	0	10	62	0	0	0	32	1	0	113	1634
8:45 AM	0	1	0	0	1	0	12	0	15	55	0	0	0	34	5	0	123	1610
8:50 AM	0	0	1	0	0	2	8	0	18	72	1	0	0	19	1	0	122	1577
8:55 AM	0	0	0	0	1	1	11	0	11	63	1	0	0	27	1	0	116	1537

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	4	28	0	4	12	112	0	212	1084	4	0	4	396	8	0	1872
Heavy Trucks	4	4	0		0	0	4		4	12	0		0	8	4		40
Buses																	
Pedestrians		4				4				0				40			48
Bicycles	0	0	0		0	0	0		0	0	0		0	8	0		8
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM

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

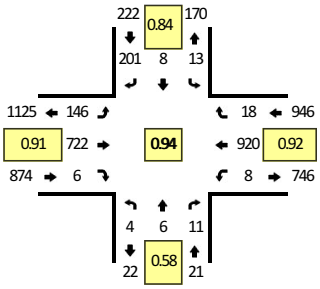
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

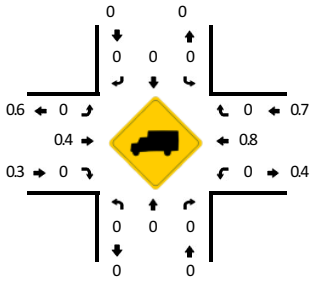
LOCATION: W Baseline Rd/Park and Ride Ent -- W Baseline Rd/SW Jenkins Rd | **QC JOB #:** 15708510

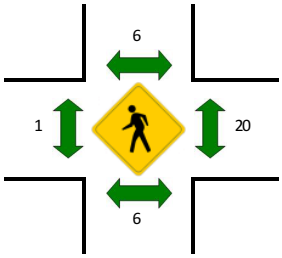
CITY/STATE: Beaverton, OR | **DATE:** Tue, Feb 15 2022

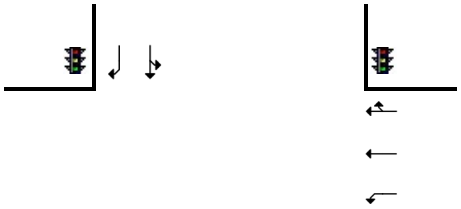
Peak-Hour: 4:30 PM -- 5:30 PM

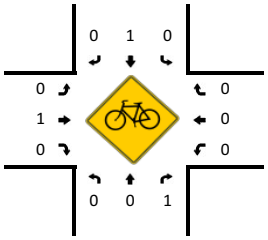
Peak 15-Min: 5:10 PM -- 5:25 PM

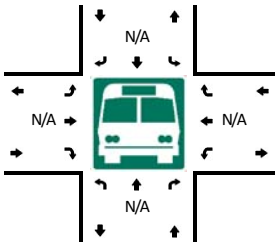


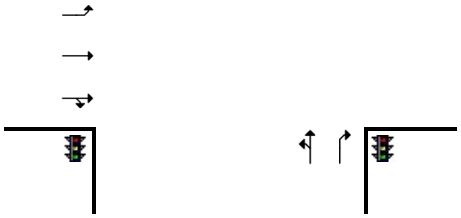


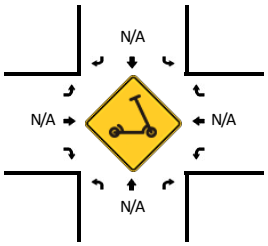












5-Min Count Period Beginning At	W Baseline Rd/Park and Ride Ent (Northbound)				W Baseline Rd/Park and Ride Ent (Southbound)				W Baseline Rd/SW Jenkins Rd (Eastbound)				W Baseline Rd/SW Jenkins Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	1	0	21	0	8	63	1	0	2	67	5	0	169	
4:05 PM	2	0	2	0	1	1	11	0	12	49	0	0	0	84	0	0	162	
4:10 PM	0	3	0	0	1	0	15	0	11	61	1	0	1	79	1	0	173	
4:15 PM	0	0	0	0	0	0	13	0	14	54	0	0	0	81	0	0	162	
4:20 PM	0	0	3	0	1	0	18	0	11	45	1	0	1	69	1	0	150	
4:25 PM	0	1	0	0	1	2	7	0	17	57	0	0	2	55	0	0	142	
4:30 PM	0	0	2	0	0	0	18	0	12	53	0	0	1	85	2	0	173	
4:35 PM	0	0	2	0	2	1	23	0	7	45	1	0	0	88	1	0	170	
4:40 PM	0	0	1	0	1	0	18	0	12	68	0	0	0	77	4	0	181	
4:45 PM	1	0	0	0	1	1	19	0	12	47	1	0	1	73	0	0	156	
4:50 PM	0	0	0	0	3	0	17	0	15	71	1	0	0	78	0	0	185	
4:55 PM	0	1	1	0	2	0	13	0	13	60	1	0	0	76	0	0	167	1990
5:00 PM	0	0	1	0	0	1	13	0	12	64	0	0	0	69	1	0	161	1982
5:05 PM	1	0	0	0	1	1	14	0	13	57	1	0	1	74	3	0	166	1986
5:10 PM	0	0	2	0	0	0	21	0	14	74	0	0	1	73	1	0	186	1999
5:15 PM	1	2	0	0	1	2	10	0	14	53	0	0	0	84	5	0	172	2009
5:20 PM	1	2	1	0	1	2	16	0	15	70	0	0	2	77	1	0	188	2047
5:25 PM	0	1	1	0	1	0	19	0	7	60	1	0	2	66	0	0	158	2063
5:30 PM	2	0	0	0	0	0	16	0	16	48	1	0	1	71	7	0	162	2052
5:35 PM	1	1	1	0	1	1	13	0	12	44	0	0	0	59	1	0	134	2016
5:40 PM	0	1	3	0	0	0	19	0	14	50	1	0	1	92	3	0	184	2019
5:45 PM	0	1	0	0	0	1	14	0	10	43	2	0	0	80	1	0	152	2015
5:50 PM	1	0	0	0	0	0	11	0	9	51	0	0	0	86	1	0	159	1989
5:55 PM	1	0	1	0	4	1	15	0	10	66	1	0	0	65	0	0	164	1986

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	8	16	12	0	8	16	188	0	172	788	0	0	12	936	28	0	2184
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8
Buses																	
Pedestrians		8				0				0				16			24
Bicycles	0	0	0		0	4	0		0	4	0		0	0	0		8
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 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: W Baseline Rd/Park and Ride Ent -- W Baseline Rd/SW Jenkins Rd

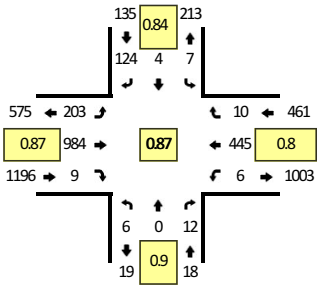
QC JOB #: 15708511

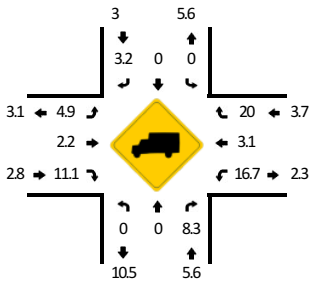
CITY/STATE: Beaverton, OR

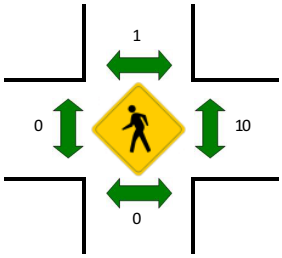
DATE: Wed, Feb 16 2022

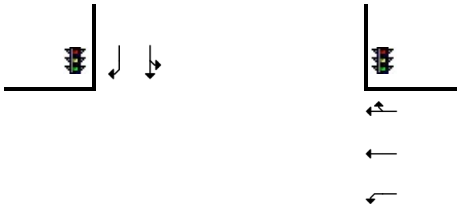
Peak-Hour: 7:20 AM -- 8:20 AM

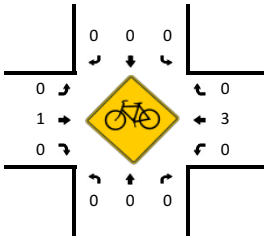
Peak 15-Min: 7:40 AM -- 7:55 AM

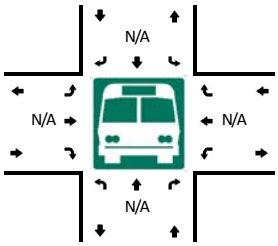


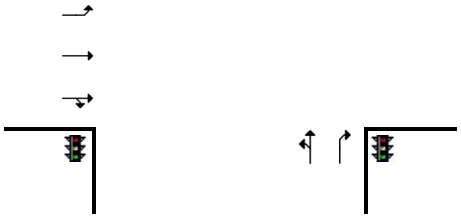


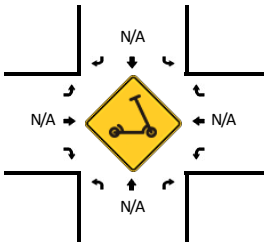












5-Min Count Period Beginning At	W Baseline Rd/Park and Ride Ent (Northbound)				W Baseline Rd/Park and Ride Ent (Southbound)				W Baseline Rd/SW Jenkins Rd (Eastbound)				W Baseline Rd/SW Jenkins Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	2	0	0	1	9	0	8	58	0	0	1	23	0	0	102	
7:05 AM	0	1	0	0	0	0	8	0	10	73	0	0	0	18	0	0	110	
7:10 AM	0	0	0	0	0	0	12	0	8	61	0	0	0	34	2	0	117	
7:15 AM	0	0	3	0	1	0	13	0	10	68	1	0	0	42	0	0	138	
7:20 AM	1	0	1	0	0	0	14	0	19	94	1	0	1	33	0	0	164	
7:25 AM	1	0	0	0	1	0	7	0	20	64	2	0	0	19	1	0	115	
7:30 AM	0	0	2	0	0	0	12	0	16	94	1	0	0	27	0	0	152	
7:35 AM	0	0	2	0	0	0	12	0	16	92	0	0	1	36	1	0	160	
7:40 AM	1	0	0	0	1	0	13	0	16	97	2	0	0	37	1	0	168	
7:45 AM	1	0	0	0	0	0	9	0	16	90	0	0	0	47	0	0	163	
7:50 AM	1	0	2	0	2	0	5	0	18	102	1	0	1	56	2	0	190	
7:55 AM	0	0	1	0	0	1	9	0	18	87	0	0	0	22	2	0	140	1719
8:00 AM	0	0	0	0	0	0	9	0	20	84	1	0	0	50	2	0	166	1783
8:05 AM	0	0	0	0	2	0	7	0	12	54	0	0	2	41	0	0	118	1791
8:10 AM	1	0	2	0	1	1	9	0	19	52	0	0	1	41	0	0	127	1801
8:15 AM	0	0	2	0	0	2	18	0	13	74	1	0	0	36	1	0	147	1810
8:20 AM	1	1	1	0	0	0	15	0	7	56	2	0	0	36	1	0	120	1766
8:25 AM	0	0	0	0	0	1	11	0	14	69	1	0	3	33	1	0	133	1784
8:30 AM	1	0	0	0	1	0	11	0	17	64	0	1	2	20	0	0	117	1749
8:35 AM	0	0	0	0	0	1	9	0	11	97	2	0	0	28	0	0	148	1737
8:40 AM	0	0	0	0	0	0	18	0	11	54	0	0	0	37	0	0	120	1689
8:45 AM	1	0	0	0	0	0	10	0	16	49	1	0	0	36	0	0	113	1639
8:50 AM	0	0	0	0	0	0	11	0	14	57	0	0	0	24	0	0	106	1555
8:55 AM	0	1	0	0	1	1	7	0	9	53	0	0	0	29	1	0	102	1517

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	0	8	0	12	0	108	0	200	1156	12	0	4	560	12	0	2084
Heavy Trucks	0	0	4		0	0	0		12	20	4		4	24	4		72
Buses																	
Pedestrians		0				0				0				16			16
Bicycles	0	0	0		0	0	0		0	4	0		0	8	0		12
Scooters																	

Comments:

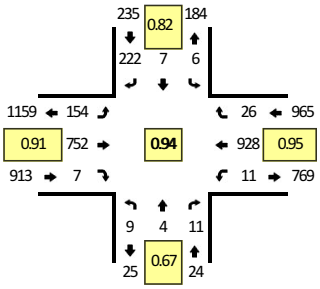
Report generated on 2/22/2022 12:52 PM

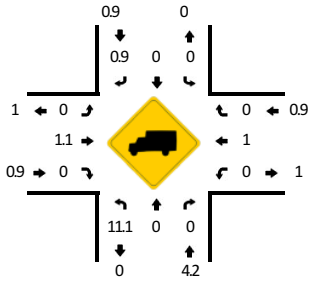
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

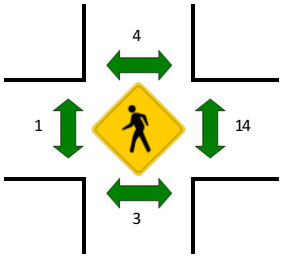
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

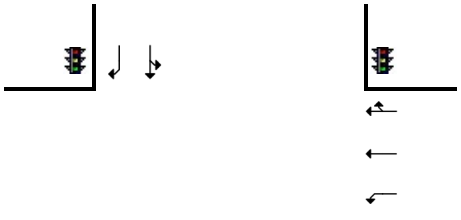
LOCATION: W Baseline Rd/Park and Ride Ent -- W Baseline Rd/SW Jenkins Rd | **QC JOB #:** 15708512
CITY/STATE: Beaverton, OR | **DATE:** Wed, Feb 16 2022

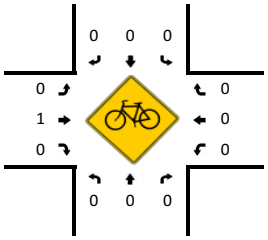
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

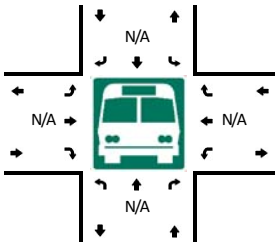


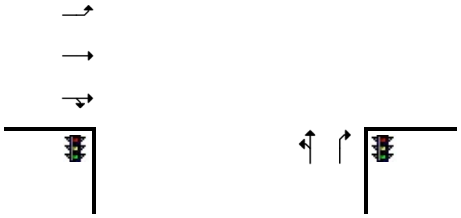


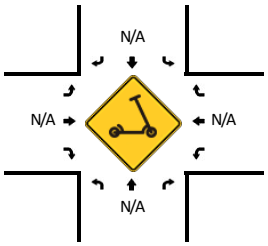












5-Min Count Period Beginning At	W Baseline Rd/Park and Ride Ent (Northbound)				W Baseline Rd/Park and Ride Ent (Southbound)				W Baseline Rd/SW Jenkins Rd (Eastbound)				W Baseline Rd/SW Jenkins Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	1	0	21	0	12	56	0	0	0	60	2	0	152	
4:05 PM	0	0	0	0	0	0	22	0	7	44	0	0	1	82	2	0	158	
4:10 PM	0	0	0	0	3	0	18	0	14	70	0	0	2	103	1	0	211	
4:15 PM	0	0	0	0	0	0	8	0	5	57	0	0	2	62	2	0	136	
4:20 PM	0	0	0	0	2	0	15	0	13	79	1	0	1	72	1	0	184	
4:25 PM	0	0	0	0	1	0	14	0	5	42	0	0	0	81	2	0	145	
4:30 PM	0	0	0	0	0	0	20	0	17	52	1	0	2	65	2	0	159	
4:35 PM	0	0	0	0	1	1	14	0	13	59	1	0	0	89	2	0	180	
4:40 PM	0	0	1	0	1	0	24	0	15	68	0	0	1	60	6	0	176	
4:45 PM	0	1	0	0	3	2	26	0	9	64	0	0	2	90	2	0	199	
4:50 PM	2	0	2	0	0	0	14	0	11	77	1	0	2	67	1	0	177	
4:55 PM	1	0	2	0	1	1	18	0	10	57	1	0	0	69	1	0	161	2038
5:00 PM	0	0	2	0	0	1	9	0	16	47	0	0	1	70	3	0	149	2035
5:05 PM	1	1	1	0	0	0	17	0	10	53	0	0	0	67	1	0	151	2028
5:10 PM	2	0	0	0	0	1	27	0	14	72	2	0	0	105	3	0	226	2043
5:15 PM	0	0	0	0	0	0	19	0	9	55	0	0	2	70	2	0	157	2064
5:20 PM	0	0	2	0	0	0	15	0	22	75	1	0	2	71	0	0	188	2068
5:25 PM	1	2	1	0	0	0	19	0	9	51	0	0	0	80	2	0	165	2088
5:30 PM	2	0	0	0	0	1	20	0	16	74	1	0	1	90	3	0	208	2137
5:35 PM	2	2	1	0	1	0	11	0	13	47	0	0	1	85	0	0	163	2120
5:40 PM	0	1	1	0	0	0	15	0	25	55	1	0	0	85	2	0	185	2129
5:45 PM	1	0	0	0	1	0	20	0	10	32	1	0	0	97	0	0	162	2092
5:50 PM	0	1	1	0	1	1	15	0	18	69	0	0	2	67	2	0	177	2092
5:55 PM	0	0	0	0	1	0	9	0	8	56	0	0	1	64	2	0	141	2072

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	8	0	8	0	0	4	244	0	180	808	12	0	16	984	20	0	2284
Heavy Trucks	4	0	0		0	0	4		0	8	0		0	12	0		28
Buses																	
Pedestrians		0				8				0				20			28
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/22/2022 12:52 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

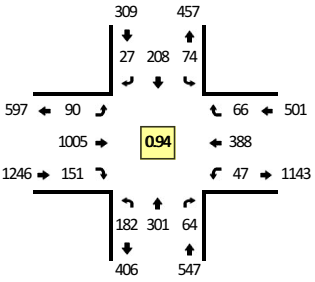
Type of peak hour being reported: Intersection Peak

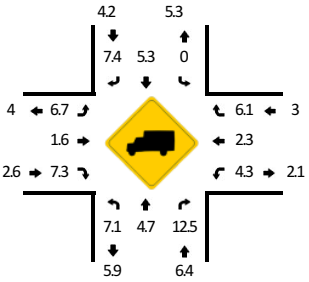
Method for determining peak hour: Total Entering Volume

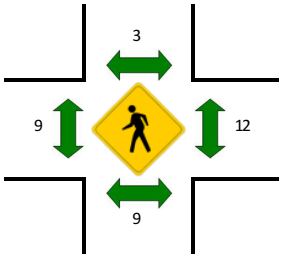
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

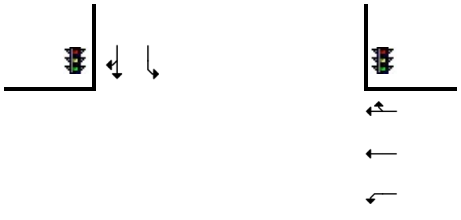
QC JOB #: 15155809
DATE: Wed, Jan 8 2020

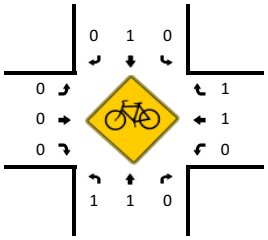
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

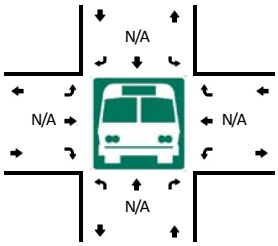


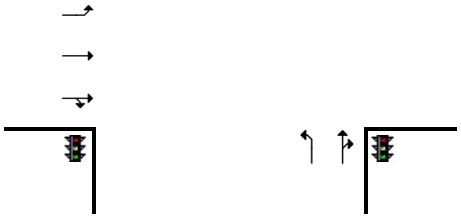


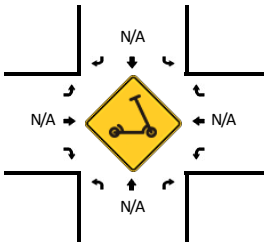












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	12	25	3	0	1	14	4	0	4	82	12	0	5	21	3	0	186	
7:05 AM	15	18	4	0	4	26	4	0	3	76	13	0	3	29	5	0	200	
7:10 AM	18	32	4	0	8	17	1	0	5	93	16	0	2	13	2	0	211	
7:15 AM	15	28	5	0	4	18	0	0	9	73	7	0	3	27	2	0	191	
7:20 AM	10	21	3	0	13	7	2	0	8	92	24	0	7	33	5	0	225	
7:25 AM	15	19	5	0	10	30	3	0	6	69	5	0	3	39	3	0	207	
7:30 AM	17	50	1	0	9	25	3	0	11	83	10	0	1	36	2	0	248	
7:35 AM	17	32	4	0	5	17	3	0	5	79	14	0	2	34	3	0	215	
7:40 AM	18	26	9	0	6	10	1	0	6	99	14	0	4	31	8	0	232	
7:45 AM	18	23	7	0	9	25	3	0	4	98	4	0	4	27	4	0	226	
7:50 AM	20	31	9	0	5	19	3	0	3	69	8	0	2	28	5	0	202	
7:55 AM	15	18	5	0	2	17	1	0	11	100	16	0	2	40	2	0	229	2572
8:00 AM	19	21	5	0	4	12	1	0	6	86	11	0	4	33	5	0	207	2593
8:05 AM	11	17	5	0	5	20	1	0	10	63	10	0	4	18	7	0	171	2564
8:10 AM	9	20	5	0	3	13	3	0	8	90	17	0	7	28	6	0	209	2562
8:15 AM	13	23	6	0	3	13	3	0	12	77	18	0	7	41	16	0	232	2603
8:20 AM	15	20	4	0	6	14	2	0	8	79	9	0	2	32	12	0	203	2581
8:25 AM	13	32	12	0	13	16	4	0	4	57	13	0	7	26	5	0	202	2576
8:30 AM	15	30	10	0	11	11	2	0	6	82	8	0	3	21	3	0	202	2530
8:35 AM	17	21	6	0	5	14	0	0	9	83	11	0	5	28	3	0	202	2517
8:40 AM	16	29	8	0	4	11	10	0	5	69	11	0	2	28	5	0	198	2483
8:45 AM	16	30	4	0	5	16	1	0	9	70	10	0	7	25	6	0	199	2456
8:50 AM	7	22	4	0	2	21	2	0	11	80	9	0	3	24	1	0	186	2440
8:55 AM	21	31	7	0	9	13	1	0	5	75	8	0	5	43	9	0	227	2438

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	208	432	56	0	80	208	28	0	88	1044	152	0	28	404	52	0	2780
Heavy Trucks	12	24	4		0	0	4		4	20	16		0	4	0		88
Buses																	
Pedestrians		8				0				12				4			24
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 5/2/2023 1:44 PM

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

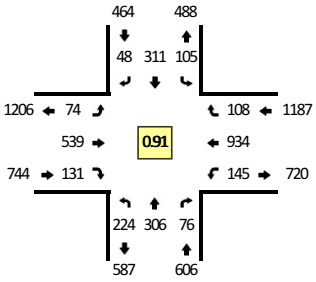
Type of peak hour being reported: Intersection Peak

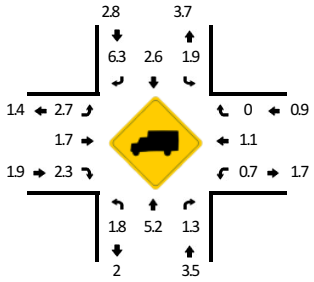
Method for determining peak hour: Total Entering Volume

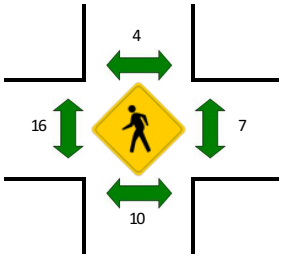
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

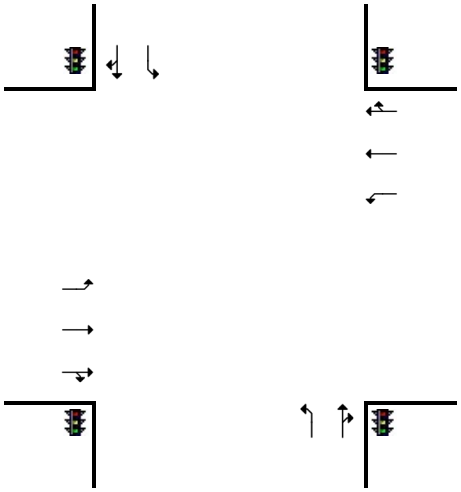
QC JOB #: 15155810
DATE: Wed, Jan 8 2020

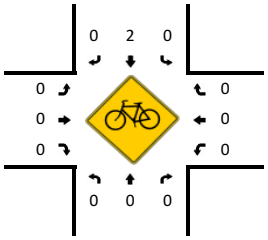
Peak-Hour: 4:05 PM -- 5:05 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

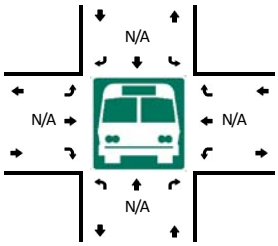


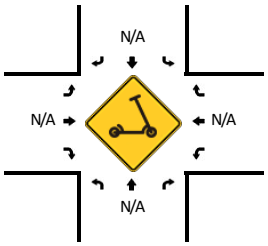












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	25	6	0	3	29	0	0	7	48	12	0	6	78	4	0	227	
4:05 PM	26	30	6	0	5	31	2	0	7	23	8	0	11	55	7	0	211	
4:10 PM	8	18	4	0	5	29	5	0	11	64	7	0	12	97	12	0	272	
4:15 PM	23	23	7	0	10	31	3	0	5	36	15	0	15	65	11	0	244	
4:20 PM	9	25	6	0	6	24	4	0	5	56	18	0	14	99	6	0	272	
4:25 PM	22	19	8	0	14	35	5	0	3	36	9	0	12	53	8	0	224	
4:30 PM	15	26	9	0	12	21	4	0	6	52	13	0	13	83	8	0	262	
4:35 PM	30	38	12	0	14	22	7	0	3	46	12	0	4	65	6	0	259	
4:40 PM	23	30	6	0	7	26	3	0	12	64	15	0	19	87	10	0	302	
4:45 PM	21	34	3	0	14	33	2	0	6	32	8	0	7	64	9	0	233	
4:50 PM	11	21	4	0	6	14	5	0	7	56	7	0	12	102	12	0	257	
4:55 PM	23	26	6	0	5	27	3	0	4	36	9	0	16	69	7	0	231	2994
5:00 PM	13	16	5	0	7	18	5	0	5	38	10	0	10	95	12	0	234	3001
5:05 PM	17	29	8	0	8	28	2	0	8	18	8	0	9	51	9	0	195	2985
5:10 PM	15	21	4	0	7	21	6	0	7	52	11	0	14	97	17	0	272	2985
5:15 PM	16	27	4	0	14	31	5	0	2	32	10	0	17	92	10	0	260	3001
5:20 PM	14	19	5	0	13	23	0	0	9	43	14	0	19	85	8	0	252	2981
5:25 PM	24	35	7	0	7	26	3	0	5	39	11	0	10	55	11	0	233	2990
5:30 PM	12	18	2	0	6	21	1	0	8	77	16	0	6	93	13	0	273	3001
5:35 PM	21	32	4	0	16	32	2	0	4	28	8	0	17	67	3	0	234	2976
5:40 PM	17	25	3	0	9	14	1	0	5	66	10	0	10	78	19	0	257	2931
5:45 PM	26	33	9	0	13	32	3	0	8	32	8	0	10	59	12	0	245	2943
5:50 PM	12	21	3	0	8	17	4	0	9	47	14	0	12	96	10	0	253	2939
5:55 PM	26	38	5	0	8	23	5	0	5	31	12	0	13	55	12	0	233	2941

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	272	376	108	0	132	276	56	0	84	648	160	0	144	940	96	0	3292
Heavy Trucks	0	24	0		4	0	4		4	8	8		0	0	0		52
Buses																	
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/2/2023 1:44 PM

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

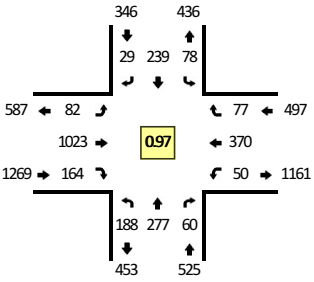
Type of peak hour being reported: Intersection Peak

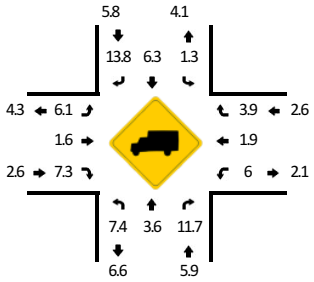
Method for determining peak hour: Total Entering Volume

LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

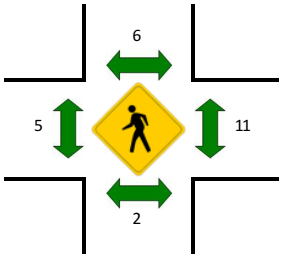
QC JOB #: 15155811
DATE: Thu, Jan 9 2020

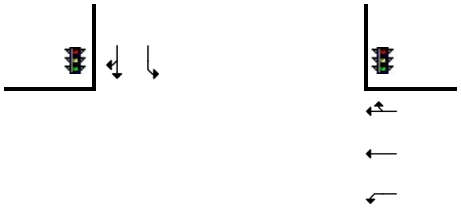
Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

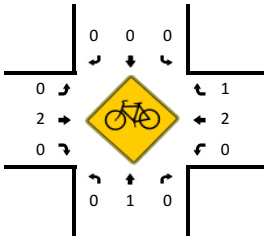


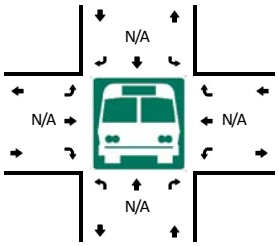


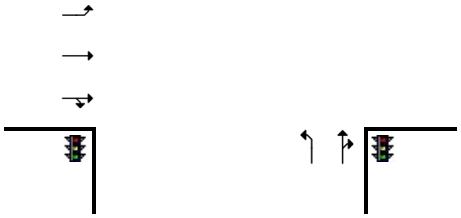
Quality Counts
DATA THAT DRIVES COMMUNITIES

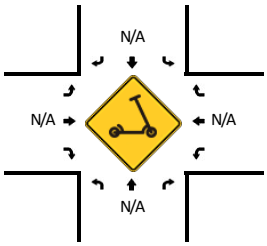












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	18	13	8	0	2	11	2	0	3	63	13	0	4	14	5	0	156	
7:05 AM	8	14	3	0	3	10	2	0	7	96	11	0	5	26	5	0	190	
7:10 AM	21	40	4	0	4	24	2	0	4	68	14	0	1	16	4	0	202	
7:15 AM	12	27	4	0	4	13	2	0	5	107	9	0	2	20	5	0	210	
7:20 AM	9	15	2	0	7	16	1	0	9	84	8	0	6	41	6	0	204	
7:25 AM	23	29	5	0	12	11	2	0	6	97	18	0	1	37	7	0	248	
7:30 AM	17	26	0	0	9	31	3	0	7	67	16	0	7	30	5	0	218	
7:35 AM	12	23	3	0	7	18	1	0	9	87	8	0	4	24	8	0	204	
7:40 AM	12	24	5	0	5	17	3	0	6	88	19	0	2	42	7	0	230	
7:45 AM	19	23	5	0	5	17	1	0	7	85	13	0	3	20	5	0	203	
7:50 AM	13	24	10	0	3	25	1	0	5	70	7	0	3	30	3	0	194	
7:55 AM	21	20	7	0	3	26	0	0	5	100	17	0	7	40	5	0	251	2510
8:00 AM	22	24	5	0	4	13	0	0	4	100	19	0	4	21	6	0	222	2576
8:05 AM	11	24	4	0	7	31	4	0	9	68	14	0	6	22	6	0	206	2592
8:10 AM	11	24	7	0	7	19	4	0	10	88	10	0	4	30	7	0	221	2611
8:15 AM	15	16	6	0	10	11	5	0	8	96	16	0	7	35	8	0	233	2634
8:20 AM	12	20	3	0	6	20	5	0	6	77	7	0	2	39	10	0	207	2637
8:25 AM	10	24	4	0	9	17	4	0	6	75	15	0	10	27	10	0	211	2600
8:30 AM	6	10	6	0	13	8	2	0	4	76	11	0	3	21	8	0	168	2550
8:35 AM	13	13	6	0	5	12	2	0	3	87	16	0	4	26	4	0	191	2537
8:40 AM	19	26	13	0	4	12	4	0	10	90	9	0	3	35	3	0	228	2535
8:45 AM	21	26	6	0	8	23	1	0	5	54	7	0	6	23	2	0	182	2514
8:50 AM	9	14	11	0	5	12	3	0	9	78	8	0	3	26	3	0	181	2501
8:55 AM	9	35	3	0	1	12	3	0	5	101	11	0	4	26	6	0	216	2466

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	216	272	64	0	56	280	16	0	72	1072	200	0	68	332	68	0	2716
Heavy Trucks	16	4	4		0	24	0		12	16	8		8	0	4		96
Buses																	
Pedestrians		4				4				4				16			28
Bicycles	0	4	0		0	0	0		0	0	0		0	4	4		12
Scooters																	

Comments:

Report generated on 5/2/2023 1:44 PM

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

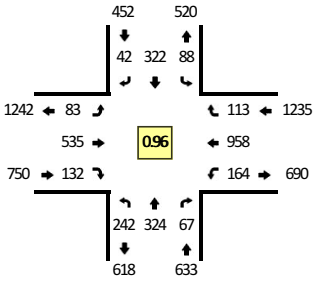
Type of peak hour being reported: Intersection Peak

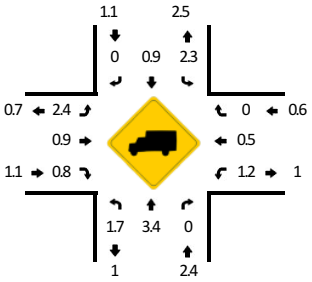
Method for determining peak hour: Total Entering Volume

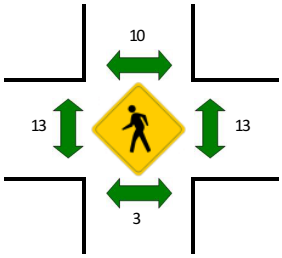
LOCATION: SW 170th Ave -- W Baseline Rd
CITY/STATE: Beaverton, OR

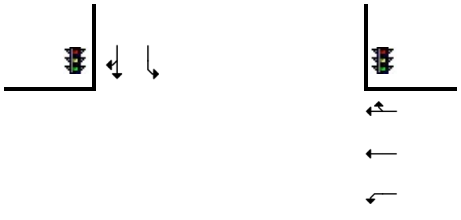
QC JOB #: 15155812
DATE: Thu, Jan 9 2020

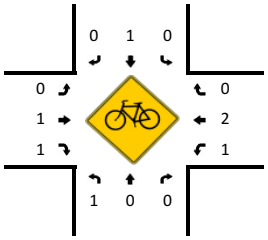
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:20 PM -- 5:35 PM

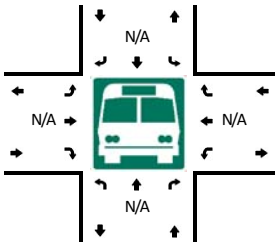


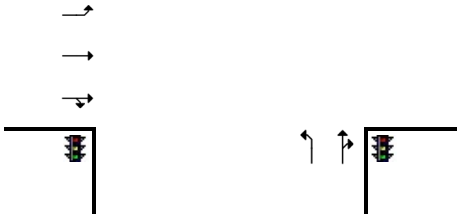


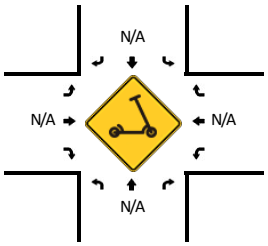












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				W Baseline Rd (Eastbound)				W Baseline Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	15	20	5	0	10	26	6	0	6	47	9	0	8	79	9	0	240	
4:05 PM	25	30	8	0	6	27	5	0	4	23	13	0	11	55	10	0	217	
4:10 PM	15	15	4	0	13	33	4	0	6	47	7	0	22	91	11	0	268	
4:15 PM	23	31	9	0	4	32	4	0	4	27	7	0	17	71	11	0	240	
4:20 PM	14	20	4	0	9	27	4	0	7	48	15	0	7	90	8	0	253	
4:25 PM	11	29	11	0	8	36	2	0	6	34	7	0	5	71	3	0	223	
4:30 PM	12	30	4	0	8	25	5	0	7	49	15	0	10	76	8	0	249	
4:35 PM	28	37	12	0	8	32	2	0	3	34	11	0	19	64	9	0	259	
4:40 PM	17	29	4	0	7	33	4	0	9	45	19	0	10	85	8	0	270	
4:45 PM	22	22	5	0	9	27	6	0	5	37	10	0	6	80	5	0	234	
4:50 PM	22	28	5	0	2	14	2	0	8	55	17	0	18	84	11	0	266	
4:55 PM	28	28	6	0	15	26	2	0	9	28	3	0	17	71	9	0	242	2961
5:00 PM	16	21	1	0	4	32	3	0	5	64	14	0	13	83	14	0	270	2991
5:05 PM	21	26	8	0	8	31	3	0	7	25	10	0	10	78	8	0	235	3009
5:10 PM	9	21	6	0	10	25	4	0	6	62	8	0	10	101	9	0	271	3012
5:15 PM	19	25	3	0	6	29	6	0	1	43	6	0	17	62	8	0	225	2997
5:20 PM	17	28	4	0	5	21	0	0	7	59	11	0	11	84	11	0	258	3002
5:25 PM	28	40	7	0	10	26	5	0	9	31	10	0	24	79	14	0	283	3062
5:30 PM	15	19	6	0	4	26	5	0	14	52	13	0	9	87	7	0	257	3070
5:35 PM	21	27	7	0	14	32	3	0	8	40	9	0	14	63	9	0	247	3058
5:40 PM	13	26	4	0	10	25	3	0	0	50	15	0	8	79	9	0	242	3030
5:45 PM	21	23	12	0	7	25	1	0	7	30	8	0	10	78	6	0	228	3024
5:50 PM	15	15	6	0	11	17	1	0	9	53	15	0	9	100	12	0	263	3021
5:55 PM	13	26	6	0	9	36	1	0	9	34	7	0	23	66	12	0	242	3021

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	240	348	68	0	76	292	40	0	120	568	136	0	176	1000	128	0	3192
Heavy Trucks	8	12	0		0	0	0		0	0	0		4	12	0		36
Buses																	
Pedestrians		0				4				12				16			32
Bicycles	0	0	0		0	0	0		0	0	0		0	4	0		4
Scooters																	

Comments:

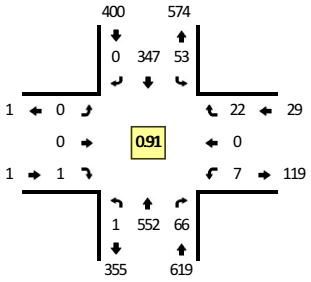
Report generated on 5/2/2023 1:44 PM

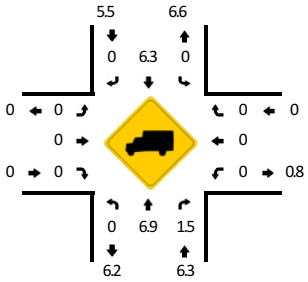
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

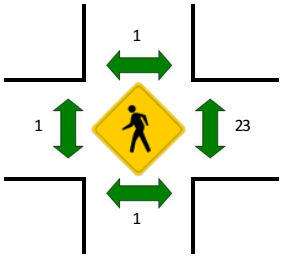
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

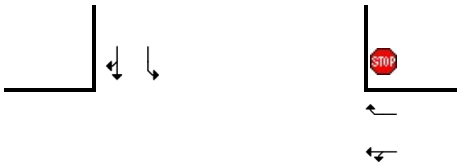
LOCATION: SW 170th Ave -- Elmonica Park and Ride Dwy | **QC JOB #:** 15155817
CITY/STATE: Beaverton, OR | **DATE:** Wed, Jan 8 2020

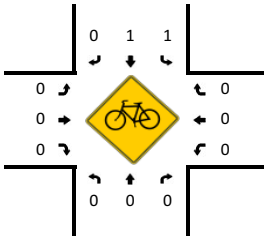
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

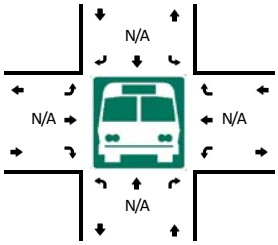


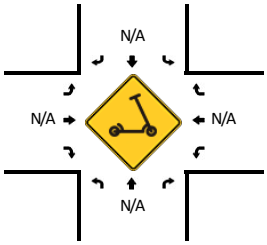












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				Elmonica Park and Ride Dwy (Eastbound)				Elmonica Park and Ride Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	37	3	0	6	25	0	0	0	0	0	0	1	0	0	0	72	
7:05 AM	1	35	5	0	7	35	0	0	0	0	0	0	0	0	1	0	84	
7:10 AM	0	46	5	0	6	31	0	0	0	0	1	0	0	0	0	0	89	
7:15 AM	0	55	6	0	4	23	0	0	0	0	0	0	1	0	2	0	91	
7:20 AM	0	38	4	0	7	30	0	0	0	0	0	0	0	0	0	0	79	
7:25 AM	0	37	0	0	2	36	0	0	0	0	0	0	1	0	4	0	80	
7:30 AM	0	59	4	0	8	24	0	0	0	0	0	0	0	0	3	0	98	
7:35 AM	0	53	14	0	6	28	0	0	0	0	0	0	0	0	4	0	105	
7:40 AM	0	46	7	0	0	30	0	0	0	0	0	0	1	0	2	0	86	
7:45 AM	0	41	3	0	2	29	0	0	0	0	0	0	1	0	0	0	76	
7:50 AM	0	57	5	0	2	26	0	0	0	0	0	0	2	0	3	0	95	
7:55 AM	0	51	7	0	6	27	0	0	0	0	0	0	0	0	0	0	91	1046
8:00 AM	0	34	6	0	3	28	0	0	0	0	0	0	1	0	3	0	75	1049
8:05 AM	0	19	2	0	6	28	0	0	0	0	0	0	0	0	2	0	57	1022
8:10 AM	0	43	6	0	6	31	0	0	0	0	0	0	1	0	0	0	87	1020
8:15 AM	0	42	8	0	2	35	1	0	0	0	0	0	0	0	2	0	90	1019
8:20 AM	0	42	3	0	1	19	1	0	0	0	0	0	1	0	0	0	67	1007
8:25 AM	0	52	2	0	5	34	0	0	0	0	0	0	0	0	0	0	93	1020
8:30 AM	0	51	1	0	3	17	1	0	0	0	0	0	1	0	0	0	74	996
8:35 AM	0	55	5	0	6	24	0	0	1	0	0	0	0	0	1	0	92	983
8:40 AM	0	45	2	0	1	22	0	0	1	0	0	0	0	0	4	0	75	972
8:45 AM	0	35	2	0	6	28	0	0	0	0	0	0	0	0	2	0	73	969
8:50 AM	0	48	1	0	4	29	0	0	0	0	0	0	0	0	1	0	83	957
8:55 AM	0	49	3	0	3	22	0	0	0	0	0	0	1	0	0	0	78	944

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	632	100	0	56	328	0	0	0	0	0	0	4	0	36	0	1156
Heavy Trucks	0	24	4		0	16	0		0	0	0		0	0	0		44
Buses																	
Pedestrians		0				0				0				20			20
Bicycles	0	0	0		4	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 5/31/2022 2:14 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

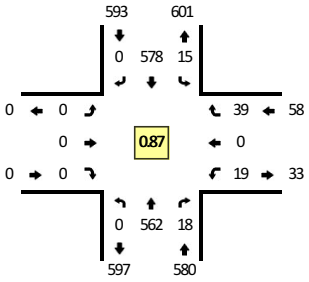
Type of peak hour being reported: Intersection Peak

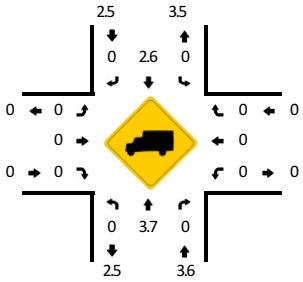
Method for determining peak hour: Total Entering Volume

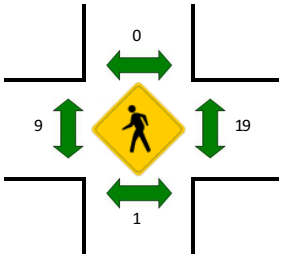
LOCATION: SW 170th Ave -- Elmonica Park and Ride Dwy
CITY/STATE: Beaverton, OR

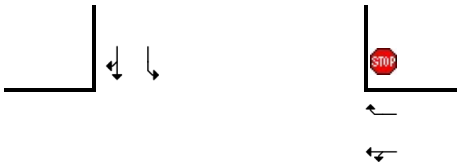
QC JOB #: 15155818
DATE: Wed, Jan 8 2020

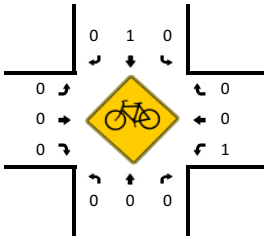
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

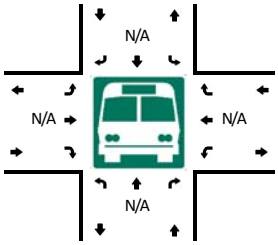


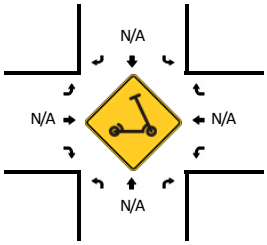












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				Elmonica Park and Ride Dwy (Eastbound)				Elmonica Park and Ride Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	43	3	0	0	47	0	0	0	0	0	0	1	0	5	0	99	
4:05 PM	0	45	1	0	2	50	0	0	0	0	0	0	3	0	3	0	104	
4:10 PM	0	48	3	0	0	51	0	0	0	0	0	0	0	0	0	0	102	
4:15 PM	0	38	0	0	0	53	0	0	0	0	0	0	1	0	5	0	97	
4:20 PM	0	39	3	0	2	62	0	0	0	0	0	0	2	0	1	0	109	
4:25 PM	0	46	2	0	0	55	0	0	0	0	0	0	1	0	0	0	104	
4:30 PM	0	54	0	0	2	41	0	0	0	0	0	0	0	0	3	0	100	
4:35 PM	0	66	2	0	1	36	0	0	0	0	0	0	6	0	10	0	121	
4:40 PM	0	67	0	0	4	57	0	0	0	0	0	0	1	0	2	0	131	
4:45 PM	0	36	3	0	1	47	0	0	0	0	0	0	0	0	0	0	87	
4:50 PM	0	45	1	0	1	32	0	0	0	0	0	0	2	0	9	0	90	
4:55 PM	0	35	0	0	2	47	0	0	0	0	0	0	2	0	1	0	87	1231
5:00 PM	0	32	1	0	1	29	0	0	0	0	0	0	1	0	1	0	65	1197
5:05 PM	0	50	4	0	2	53	0	0	3	0	0	0	4	0	4	0	120	1213
5:10 PM	0	49	0	0	2	43	0	0	1	0	0	0	0	0	1	0	96	1207
5:15 PM	0	41	4	0	2	55	0	0	0	0	0	0	0	0	0	0	102	1212
5:20 PM	0	37	1	0	3	52	0	0	0	0	0	0	0	0	0	0	93	1196
5:25 PM	0	45	0	0	2	47	0	0	0	0	0	0	6	0	14	0	114	1206
5:30 PM	0	32	2	0	2	42	0	0	0	0	0	0	9	0	11	0	98	1204
5:35 PM	0	55	2	0	1	53	0	0	0	0	0	0	3	0	2	0	116	1199
5:40 PM	0	43	1	0	2	35	0	0	0	0	0	0	4	0	11	0	96	1164
5:45 PM	0	46	3	0	2	49	0	0	0	0	0	0	3	0	6	0	109	1186
5:50 PM	0	43	2	0	1	42	0	0	0	0	0	0	6	0	6	0	100	1196
5:55 PM	0	46	2	0	0	48	0	0	0	0	0	0	4	0	5	0	105	1214

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	748	8	0	28	536	0	0	0	0	0	0	28	0	60	0	1408
Heavy Trucks	0	24	0		0	8	0		0	0	0		0	0	0		32
Buses																	
Pedestrians		4				0				12				8			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/31/2022 2:14 PM

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

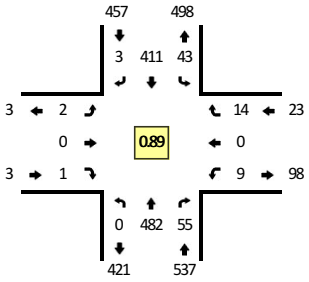
Type of peak hour being reported: Intersection Peak

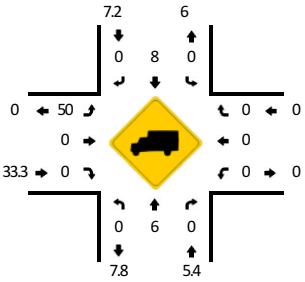
Method for determining peak hour: Total Entering Volume

LOCATION: SW 170th Ave -- Elmonica Park and Ride Dwy
CITY/STATE: Beaverton, OR

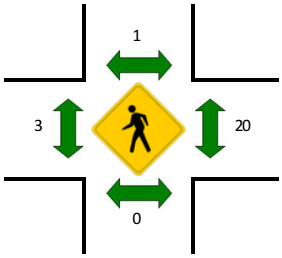
QC JOB #: 15155819
DATE: Thu, Jan 9 2020

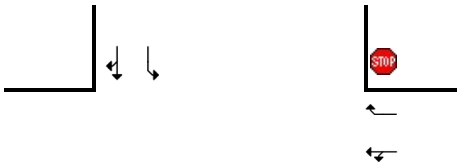
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

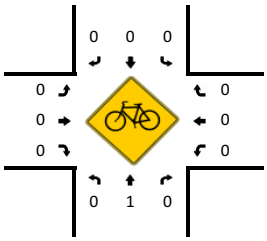


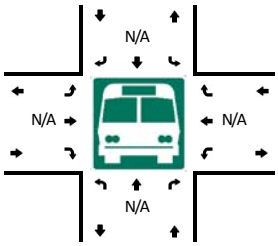


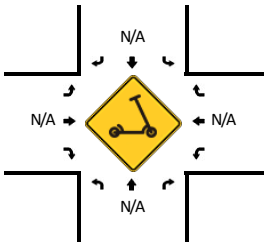
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				Elmonica Park and Ride Dwy (Eastbound)				Elmonica Park and Ride Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	32	5	0	4	24	0	0	0	0	0	0	1	0	2	0	68	
7:05 AM	0	39	3	0	7	19	0	0	0	0	0	0	1	0	0	0	69	
7:10 AM	0	53	4	0	5	29	0	0	0	0	0	0	0	0	2	0	93	
7:15 AM	0	39	1	0	7	22	0	0	0	0	0	0	0	0	2	0	71	
7:20 AM	0	43	4	0	3	25	0	0	0	0	0	0	1	0	0	0	76	
7:25 AM	0	49	1	0	3	28	0	0	0	0	0	0	0	0	0	0	81	
7:30 AM	0	35	1	0	4	48	0	0	0	0	0	0	1	0	1	0	90	
7:35 AM	0	37	4	0	3	26	1	0	0	0	0	0	0	0	0	0	71	
7:40 AM	0	46	3	0	5	33	0	0	0	0	0	0	1	0	4	0	92	
7:45 AM	0	37	2	0	4	26	1	0	1	0	0	0	0	0	0	0	71	
7:50 AM	0	60	4	0	2	32	0	0	0	0	0	0	1	0	1	0	100	
7:55 AM	0	43	6	0	4	46	0	0	0	0	1	0	0	0	2	0	102	984
8:00 AM	0	41	7	0	2	33	0	0	0	0	0	0	2	0	1	0	86	1002
8:05 AM	0	33	3	0	4	44	0	0	0	0	0	0	0	0	0	0	84	1017
8:10 AM	0	44	9	0	1	35	0	0	0	0	0	0	2	0	0	0	91	1015
8:15 AM	0	34	5	0	6	26	1	0	1	0	0	0	1	0	1	0	75	1019
8:20 AM	0	39	5	0	3	25	0	0	0	0	0	0	0	0	2	0	74	1017
8:25 AM	0	33	6	0	5	37	0	0	0	0	0	0	1	0	2	0	84	1020
8:30 AM	0	19	2	0	3	18	1	0	0	0	0	0	0	0	0	0	43	973
8:35 AM	0	47	5	0	3	28	0	0	0	0	0	0	1	0	0	0	84	986
8:40 AM	0	56	0	0	1	24	0	0	0	0	0	0	0	0	1	0	82	976
8:45 AM	0	46	7	0	2	35	0	0	0	0	0	0	2	0	1	0	93	998
8:50 AM	0	35	1	0	3	21	1	0	2	0	0	0	1	0	3	0	67	965
8:55 AM	0	42	1	0	3	23	1	0	0	0	0	0	0	0	1	0	71	934

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	576	68	0	32	444	0	0	0	0	4	0	12	0	16	0	1152
Heavy Trucks	0	40	0		0	32	0		0	0	0		0	0	0		72
Buses																	
Pedestrians		0				0				0				20			20
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 5/31/2022 2:14 PM

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

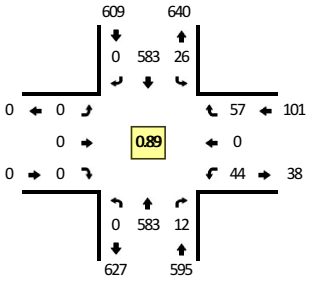
Type of peak hour being reported: Intersection Peak

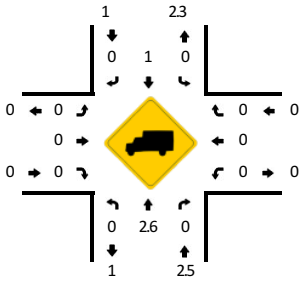
Method for determining peak hour: Total Entering Volume

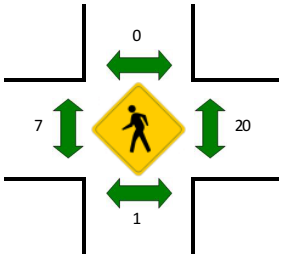
LOCATION: SW 170th Ave -- Elmonica Park and Ride Dwy
CITY/STATE: Beaverton, OR

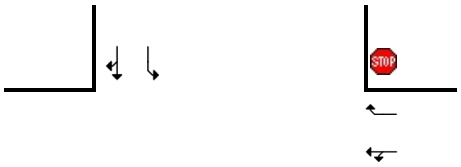
QC JOB #: 15155820
DATE: Thu, Jan 9 2020

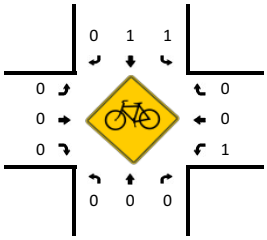
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

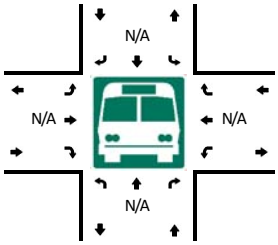


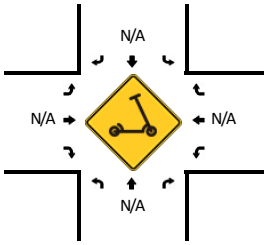












5-Min Count Period Beginning At	SW 170th Ave (Northbound)				SW 170th Ave (Southbound)				Elmonica Park and Ride Dwy (Eastbound)				Elmonica Park and Ride Dwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	46	0	0	0	43	0	0	0	0	0	0	5	0	5	0	99	
4:05 PM	0	43	2	0	2	47	0	0	0	0	0	0	1	0	2	0	97	
4:10 PM	0	43	1	0	0	63	0	0	0	0	0	0	2	0	2	0	111	
4:15 PM	0	57	0	0	0	57	0	0	0	0	0	0	4	0	0	0	118	
4:20 PM	0	39	1	0	0	51	0	0	0	0	0	0	3	0	3	0	97	
4:25 PM	0	40	0	0	0	47	0	0	0	0	0	0	0	0	0	0	87	
4:30 PM	0	62	0	0	2	47	0	0	0	0	0	0	1	0	1	0	113	
4:35 PM	0	52	2	0	3	59	0	0	0	0	0	0	3	0	9	0	128	
4:40 PM	0	60	0	0	5	58	0	0	0	0	0	0	1	0	0	0	124	
4:45 PM	0	36	1	0	2	40	0	0	0	0	0	0	1	0	0	0	80	
4:50 PM	0	68	2	0	1	37	0	0	0	0	0	0	5	0	7	0	120	
4:55 PM	0	43	0	0	0	49	0	0	0	0	0	0	1	0	2	0	95	1269
5:00 PM	0	36	1	0	3	47	0	0	0	0	0	0	0	0	0	0	87	1257
5:05 PM	0	53	2	0	1	54	0	0	0	0	0	0	1	0	3	0	114	1274
5:10 PM	0	28	0	0	4	39	0	0	0	0	0	0	12	0	8	0	91	1254
5:15 PM	0	42	2	0	3	49	0	0	0	0	0	0	3	0	1	0	100	1236
5:20 PM	0	49	1	0	2	42	0	0	0	0	0	0	7	0	14	0	115	1254
5:25 PM	0	54	1	0	0	62	0	0	0	0	0	0	9	0	12	0	138	1305
5:30 PM	0	45	1	0	3	44	0	0	0	0	0	0	3	0	1	0	97	1289
5:35 PM	0	49	0	0	2	53	0	0	0	0	0	0	1	0	3	0	108	1269
5:40 PM	0	36	1	0	0	42	0	0	0	0	0	0	5	0	4	0	88	1233
5:45 PM	0	46	2	0	0	48	0	0	0	0	0	0	2	0	3	0	101	1254
5:50 PM	0	41	4	0	1	40	0	0	0	0	0	0	8	0	8	0	102	1236
5:55 PM	0	43	3	0	2	64	0	0	0	0	0	0	1	0	3	0	116	1257

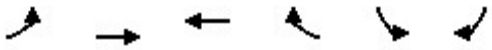
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	696	8	0	40	656	0	0	0	0	0	0	20	0	40	0	1460
Heavy Trucks	0	24	0		0	12	0		0	0	0		0	0	0		36
Buses																	
Pedestrians		4				0				12				12			28
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 5/31/2022 2:14 PM

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

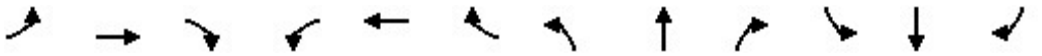
Appendix D: Existing HCM Reports



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	56	1231	630	11	15	58
Future Volume (Veh/h)	56	1231	630	11	15	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	60	1310	670	12	16	62
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			685			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	685				1454	344
vC1, stage 1 conf vol					679	
vC2, stage 2 conf vol					775	
vCu, unblocked vol	433				1286	55
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	94				95	93
cM capacity (veh/h)	997				339	899

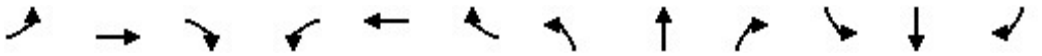
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	60	655	655	447	235	78
Volume Left	60	0	0	0	0	16
Volume Right	0	0	0	0	12	62
cSH	997	1700	1700	1700	1700	671
Volume to Capacity	0.06	0.39	0.39	0.26	0.14	0.12
Queue Length 95th (ft)	5	0	0	0	0	10
Control Delay (s)	8.8	0.0	0.0	0.0	0.0	11.1
Lane LOS	A					B
Approach Delay (s)	0.4			0.0		11.1
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		



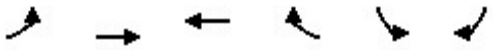
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	1092	108	60	476	87	137	272	65	82	163	28
Future Volume (vph)	58	1092	108	60	476	87	137	272	65	82	163	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3468		1687	3378		1719	1767		1752	1708	
Flt Permitted	0.36	1.00		0.14	1.00		0.40	1.00		0.24	1.00	
Satd. Flow (perm)	663	3468		246	3378		723	1767		435	1708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	59	1114	110	61	486	89	140	278	66	84	166	29
RTOR Reduction (vph)	0	5	0	0	12	0	0	8	0	0	7	0
Lane Group Flow (vph)	59	1219	0	61	563	0	140	336	0	84	188	0
Confl. Peds. (#/hr)			2			5			11			4
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	4%	2%	7%	7%	3%	8%	5%	3%	8%	3%	10%	0%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	62.4	58.6		62.4	45.4		29.1	25.9		29.1	17.0	
Effective Green, g (s)	62.4	58.6		62.4	45.4		29.1	25.9		29.1	17.0	
Actuated g/C Ratio	0.57	0.53		0.57	0.41		0.26	0.24		0.26	0.15	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	541	1847		189	1394		300	416		153	263	
v/s Ratio Prot	0.02	c0.35		c0.01	0.17		c0.05	c0.19		0.02	0.11	
v/s Ratio Perm	0.04			0.17			0.07			0.13		
v/c Ratio	0.11	0.66		0.32	0.40		0.47	0.81		0.55	0.72	
Uniform Delay, d1	14.9	18.5		26.8	22.8		38.9	39.7		45.4	44.2	
Progression Factor	1.00	1.00		1.16	0.67		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.9		0.4	0.8		0.4	10.6		2.2	8.3	
Delay (s)	15.0	20.4		31.3	16.1		39.3	50.3		47.6	52.5	
Level of Service	B	C		C	B		D	D		D	D	
Approach Delay (s)		20.1			17.6			47.1			51.1	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	216	1014	10	6	468	8	7	3	15	7	6	141
Future Volume (vph)	216	1014	10	6	468	8	7	3	15	7	6	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1752	3530		1805	3449		1543	1542			1694	1529
Flt Permitted	0.45	1.00		0.24	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	835	3530		457	3449		1543	1542			1694	1529
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)	225	1056	10	6	488	8	7	3	16	7	6	147
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	138
Lane Group Flow (vph)	225	1066	0	6	496	0	7	19	0	0	13	9
Confl. Peds. (#/hr)			2			5			13	13		
Confl. Bikes (#/hr)			1			4						1
Heavy Vehicles (%)	3%	2%	11%	0%	4%	25%	17%	33%	0%	0%	20%	4%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	80.6	79.6		80.6	63.3		4.1	4.1			6.8	6.8
Effective Green, g (s)	80.6	79.6		80.6	63.3		4.1	4.1			6.8	6.8
Actuated g/C Ratio	0.73	0.72		0.73	0.58		0.04	0.04			0.06	0.06
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	756	2554		347	1984		57	57			104	94
v/s Ratio Prot	0.05	c0.30		0.00	0.14		0.00	c0.01			c0.01	
v/s Ratio Perm	c0.17			0.01								0.01
v/c Ratio	0.30	0.42		0.02	0.25		0.12	0.33			0.12	0.10
Uniform Delay, d1	6.2	6.0		4.3	11.6		51.2	51.6			48.8	48.7
Progression Factor	0.54	0.53		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.3		0.4	1.3			0.2	0.2
Delay (s)	3.4	3.6		4.3	11.9		51.6	52.9			49.0	48.9
Level of Service	A	A		A	B		D	D			D	D
Approach Delay (s)		3.6			11.8			52.5			48.9	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	47	889	1075	37	15	84
Future Volume (Veh/h)	47	889	1075	37	15	84
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	48	916	1108	38	15	87
Pedestrians			1		4	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			3.5		3.5	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			685			
pX, platoon unblocked	0.76				0.76	0.76
vC, conflicting volume	1150				1686	577
vC1, stage 1 conf vol					1131	
vC2, stage 2 conf vol					555	
vCu, unblocked vol	580				1281	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	94				95	90
cM capacity (veh/h)	765				332	831

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	48	458	458	739	407	102
Volume Left	48	0	0	0	0	15
Volume Right	0	0	0	0	38	87
cSH	765	1700	1700	1700	1700	681
Volume to Capacity	0.06	0.27	0.27	0.43	0.24	0.15
Queue Length 95th (ft)	5	0	0	0	0	13
Control Delay (s)	10.0	0.0	0.0	0.0	0.0	11.2
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		11.2
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		

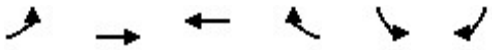
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	715	126	118	916	145	142	277	70	125	292	44
Future Volume (vph)	74	715	126	118	916	145	142	277	70	125	292	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3469		1805	3489		1787	1820		1805	1837	
Flt Permitted	0.14	1.00		0.20	1.00		0.20	1.00		0.21	1.00	
Satd. Flow (perm)	272	3469		375	3489		370	1820		408	1837	
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)	77	745	131	123	954	151	148	289	73	130	304	46
RTOR Reduction (vph)	0	11	0	0	9	0	0	8	0	0	5	0
Lane Group Flow (vph)	77	865	0	123	1096	0	148	354	0	130	345	0
Confl. Peds. (#/hr)			9			4			9			7
Confl. Bikes (#/hr)			1			2						1
Heavy Vehicles (%)	0%	1%	1%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	62.4	48.7		62.4	56.1		39.1	29.4		39.1	27.1	
Effective Green, g (s)	62.4	48.7		62.4	56.1		39.1	29.4		39.1	27.1	
Actuated g/C Ratio	0.52	0.41		0.52	0.47		0.33	0.24		0.33	0.23	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	221	1407		358	1631		262	445		245	414	
v/s Ratio Prot	0.02	c0.25		0.04	c0.31		c0.06	c0.19		0.04	0.19	
v/s Ratio Perm	0.16			0.14			0.13			0.13		
v/c Ratio	0.35	0.61		0.34	0.67		0.56	0.79		0.53	0.83	
Uniform Delay, d1	17.5	28.2		30.6	24.8		31.2	42.5		30.9	44.3	
Progression Factor	1.00	1.00		0.50	0.63		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	2.0		0.5	2.0		2.8	9.5		2.2	13.5	
Delay (s)	18.5	30.2		15.8	17.6		34.0	51.9		33.1	57.8	
Level of Service	B	C		B	B		C	D		C	E	
Approach Delay (s)		29.3			17.4			46.7			51.1	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	750	8	11	940	23	8	6	12	11	9	216
Future Volume (vph)	153	750	8	11	940	23	8	6	12	11	9	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.97			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.90			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1805	3567		1805	3559		1805	1654			1850	1584
Flt Permitted	0.23	1.00		0.33	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	436	3567		621	3559		1805	1654			1850	1584
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)	163	798	9	12	1000	24	9	6	13	12	10	230
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	214
Lane Group Flow (vph)	163	807	0	12	1023	0	9	19	0	0	22	16
Confl. Peds. (#/hr)			6			6	1		20	20		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	88.3	85.9		88.3	75.4		4.7	4.7			8.5	8.5
Effective Green, g (s)	88.3	85.9		88.3	75.4		4.7	4.7			8.5	8.5
Actuated g/C Ratio	0.74	0.72		0.74	0.63		0.04	0.04			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	467	2553		480	2236		70	64			131	112
v/s Ratio Prot	c0.04	0.23		0.00	c0.29		0.00	c0.01			c0.01	
v/s Ratio Perm	0.22			0.02								0.01
v/c Ratio	0.35	0.32		0.03	0.46		0.13	0.30			0.17	0.15
Uniform Delay, d1	5.7	6.3		4.3	11.6		55.7	56.0			52.4	52.3
Progression Factor	1.25	0.20		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.4	0.3		0.0	0.7		0.8	2.6			0.6	0.6
Delay (s)	7.5	1.5		4.3	12.3		56.5	58.6			53.0	52.9
Level of Service	A	A		A	B		E	E			D	D
Approach Delay (s)		2.5			12.2			58.0			52.9	
Approach LOS		A			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

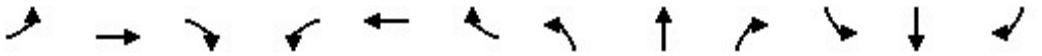
Appendix E: Future HCM Reports



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	1305	668	12	16	61
Future Volume (Veh/h)	59	1305	668	12	16	61
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	63	1388	711	13	17	65
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			685			
pX, platoon unblocked	0.89				0.89	0.89
vC, conflicting volume	727				1540	365
vC1, stage 1 conf vol					720	
vC2, stage 2 conf vol					820	
vCu, unblocked vol	454				1365	48
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	94				95	93
cM capacity (veh/h)	970				319	899

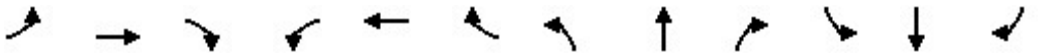
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	63	694	694	474	250	82
Volume Left	63	0	0	0	0	17
Volume Right	0	0	0	0	13	65
cSH	970	1700	1700	1700	1700	653
Volume to Capacity	0.06	0.41	0.41	0.28	0.15	0.13
Queue Length 95th (ft)	5	0	0	0	0	11
Control Delay (s)	9.0	0.0	0.0	0.0	0.0	11.3
Lane LOS	A					B
Approach Delay (s)	0.4			0.0		11.3
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		



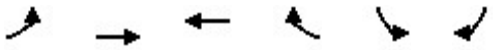
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1158	114	64	505	92	145	288	69	87	173	30
Future Volume (vph)	61	1158	114	64	505	92	145	288	69	87	173	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3468		1687	3378		1719	1766		1752	1708	
Flt Permitted	0.34	1.00		0.11	1.00		0.38	1.00		0.22	1.00	
Satd. Flow (perm)	625	3468		201	3378		689	1766		408	1708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	62	1182	116	65	515	94	148	294	70	89	177	31
RTOR Reduction (vph)	0	5	0	0	12	0	0	8	0	0	7	0
Lane Group Flow (vph)	62	1293	0	65	597	0	148	356	0	89	201	0
Confl. Peds. (#/hr)			2			5			11			4
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	4%	2%	7%	7%	3%	8%	5%	3%	8%	3%	10%	0%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	61.3	57.3		61.3	45.3		30.2	27.0		30.2	17.9	
Effective Green, g (s)	61.3	57.3		61.3	45.3		30.2	27.0		30.2	17.9	
Actuated g/C Ratio	0.56	0.52		0.56	0.41		0.27	0.25		0.27	0.16	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	509	1806		166	1391		304	433		151	277	
v/s Ratio Prot	0.02	c0.37		c0.01	0.18		c0.05	c0.20		0.02	0.12	
v/s Ratio Perm	0.05			0.20			0.08			0.14		
v/c Ratio	0.12	0.72		0.39	0.43		0.49	0.82		0.59	0.73	
Uniform Delay, d1	16.2	20.1		31.2	23.1		38.7	39.2		45.8	43.7	
Progression Factor	1.00	1.00		1.06	0.66		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.5		0.5	0.9		0.4	11.6		3.8	8.6	
Delay (s)	16.2	22.6		33.6	16.1		39.1	50.9		49.6	52.3	
Level of Service	B	C		C	B		D	D		D	D	
Approach Delay (s)		22.3			17.8			47.5			51.5	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	229	1075	11	6	496	8	7	3	16	7	6	149
Future Volume (vph)	229	1075	11	6	496	8	7	3	16	7	6	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1752	3530		1805	3451		1543	1543			1694	1529
Flt Permitted	0.43	1.00		0.22	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	800	3530		419	3451		1543	1543			1694	1529
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)	239	1120	11	6	517	8	7	3	17	7	6	155
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	145
Lane Group Flow (vph)	239	1131	0	6	525	0	7	20	0	0	13	10
Confl. Peds. (#/hr)			2			5			13	13		
Confl. Bikes (#/hr)			1			4						1
Heavy Vehicles (%)	3%	2%	11%	0%	4%	25%	17%	33%	0%	0%	20%	4%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	80.2	79.2		80.2	62.1		4.2	4.2			7.1	7.1
Effective Green, g (s)	80.2	79.2		80.2	62.1		4.2	4.2			7.1	7.1
Actuated g/C Ratio	0.73	0.72		0.73	0.56		0.04	0.04			0.06	0.06
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	739	2541		318	1948		58	58			109	98
v/s Ratio Prot	0.05	c0.32		0.00	0.15		0.00	c0.01			c0.01	
v/s Ratio Perm	c0.18			0.01								0.01
v/c Ratio	0.32	0.44		0.02	0.27		0.12	0.34			0.12	0.10
Uniform Delay, d1	6.9	6.3		4.5	12.3		51.1	51.6			48.5	48.4
Progression Factor	0.48	0.51		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.3		0.3	1.3			0.2	0.2
Delay (s)	3.4	3.6		4.5	12.6		51.5	52.9			48.7	48.6
Level of Service	A	A		A	B		D	D			D	D
Approach Delay (s)		3.6			12.5			52.5			48.6	
Approach LOS		A			B			D			D	

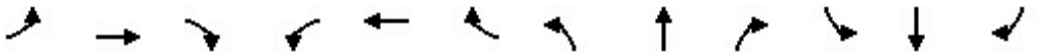
Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	925	1118	38	16	87
Future Volume (Veh/h)	49	925	1118	38	16	87
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	51	954	1153	39	16	90
Pedestrians			1		4	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			3.5		3.5	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			685			
pX, platoon unblocked	0.76				0.76	0.76
vC, conflicting volume	1196				1756	600
vC1, stage 1 conf vol					1176	
vC2, stage 2 conf vol					580	
vCu, unblocked vol	616				1357	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				95	89
cM capacity (veh/h)	734				315	822

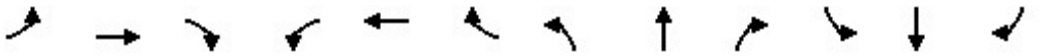
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	51	477	477	769	423	106
Volume Left	51	0	0	0	0	16
Volume Right	0	0	0	0	39	90
cSH	734	1700	1700	1700	1700	661
Volume to Capacity	0.07	0.28	0.28	0.45	0.25	0.16
Queue Length 95th (ft)	6	0	0	0	0	14
Control Delay (s)	10.3	0.0	0.0	0.0	0.0	11.5
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		11.5
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		



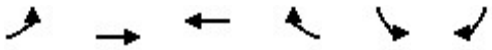
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	744	131	123	953	151	148	288	73	130	304	46
Future Volume (vph)	77	744	131	123	953	151	148	288	73	130	304	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3498		1805	3490		1787	1819		1805	1837	
Flt Permitted	0.14	1.00		0.19	1.00		0.19	1.00		0.20	1.00	
Satd. Flow (perm)	259	3498		354	3490		351	1819		374	1837	
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)	80	775	136	128	993	157	154	300	76	135	317	48
RTOR Reduction (vph)	0	11	0	0	9	0	0	8	0	0	5	0
Lane Group Flow (vph)	80	900	0	128	1141	0	154	368	0	135	360	0
Confl. Peds. (#/hr)			9			4			9			7
Confl. Bikes (#/hr)			1			2						1
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	63.2	49.6		63.2	58.0		38.3	29.7		38.3	28.0	
Effective Green, g (s)	63.2	49.6		63.2	58.0		38.3	29.7		38.3	28.0	
Actuated g/C Ratio	0.53	0.41		0.53	0.48		0.32	0.25		0.32	0.23	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	203	1445		350	1686		235	450		221	428	
v/s Ratio Prot	0.02	c0.26		0.04	c0.33		c0.06	c0.20		0.04	0.20	
v/s Ratio Perm	0.19			0.15			0.15			0.15		
v/c Ratio	0.39	0.62		0.37	0.68		0.66	0.82		0.61	0.84	
Uniform Delay, d1	17.4	27.8		31.4	23.8		32.1	42.6		31.8	43.9	
Progression Factor	1.00	1.00		0.61	0.68		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	2.0		0.2	2.0		4.9	10.7		3.5	13.8	
Delay (s)	17.9	29.9		19.4	18.1		37.0	53.3		35.2	57.6	
Level of Service	B	C		B	B		D	D		D	E	
Approach Delay (s)		28.9			18.2			48.6			51.6	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	159	780	8	11	978	24	8	6	12	11	9	225
Future Volume (vph)	159	780	8	11	978	24	8	6	12	11	9	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.97			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.90			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1805	3567		1805	3559		1805	1654			1850	1583
Flt Permitted	0.22	1.00		0.32	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	412	3567		601	3559		1805	1654			1850	1583
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)	169	830	9	12	1040	26	9	6	13	12	10	239
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	223
Lane Group Flow (vph)	169	839	0	12	1065	0	9	19	0	0	22	16
Confl. Peds. (#/hr)			6			6			20	20		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	89.3	87.3		89.3	75.8		4.1	4.1			8.1	8.1
Effective Green, g (s)	89.3	87.3		89.3	75.8		4.1	4.1			8.1	8.1
Actuated g/C Ratio	0.74	0.73		0.74	0.63		0.03	0.03			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	463	2594		467	2248		61	56			124	106
v/s Ratio Prot	c0.04	0.24		0.00	c0.30		0.00	c0.01			c0.01	
v/s Ratio Perm	0.23			0.02								0.01
v/c Ratio	0.37	0.32		0.03	0.47		0.15	0.34			0.18	0.15
Uniform Delay, d1	12.7	5.8		4.1	11.6		56.3	56.6			52.8	52.7
Progression Factor	0.63	0.25		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.3		0.0	0.7		0.4	1.3			0.3	0.2
Delay (s)	8.2	1.7		4.1	12.3		56.7	57.9			53.1	53.0
Level of Service	A	A		A	B		E	E			D	D
Approach Delay (s)		2.8			12.2			57.5			53.0	
Approach LOS		A			B			E			D	

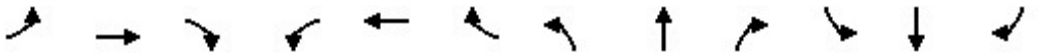
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	1310	674	12	16	61
Future Volume (Veh/h)	59	1310	674	12	16	61
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	63	1394	717	13	17	65
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			710			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	733				1550	368
vC1, stage 1 conf vol					726	
vC2, stage 2 conf vol					823	
vCu, unblocked vol	468				1380	60
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				95	93
cM capacity (veh/h)	961				316	887

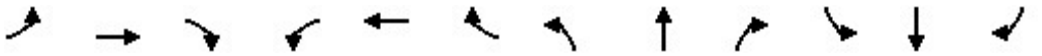
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	63	697	697	478	252	82
Volume Left	63	0	0	0	0	17
Volume Right	0	0	0	0	13	65
cSH	961	1700	1700	1700	1700	645
Volume to Capacity	0.07	0.41	0.41	0.28	0.15	0.13
Queue Length 95th (ft)	5	0	0	0	0	11
Control Delay (s)	9.0	0.0	0.0	0.0	0.0	11.4
Lane LOS	A					B
Approach Delay (s)	0.4			0.0		11.4
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1169	114	66	505	92	151	288	69	87	174	30
Future Volume (vph)	65	1169	114	66	505	92	151	288	69	87	174	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3469		1687	3378		1719	1766		1752	1708	
Flt Permitted	0.34	1.00		0.11	1.00		0.38	1.00		0.22	1.00	
Satd. Flow (perm)	625	3469		196	3378		685	1766		404	1708	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	66	1193	116	67	515	94	154	294	70	89	178	31
RTOR Reduction (vph)	0	5	0	0	12	0	0	8	0	0	7	0
Lane Group Flow (vph)	66	1304	0	67	597	0	154	356	0	89	202	0
Confl. Peds. (#/hr)			2			5			11			4
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	4%	2%	7%	7%	3%	8%	5%	3%	8%	3%	10%	0%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	61.4	57.3		61.4	45.3		30.1	26.9		30.1	17.9	
Effective Green, g (s)	61.4	57.3		61.4	45.3		30.1	26.9		30.1	17.9	
Actuated g/C Ratio	0.56	0.52		0.56	0.41		0.27	0.24		0.27	0.16	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	511	1807		164	1391		302	431		149	277	
v/s Ratio Prot	0.02	c0.38		c0.02	0.18		c0.06	c0.20		0.02	0.12	
v/s Ratio Perm	0.05			0.21			0.08			0.15		
v/c Ratio	0.13	0.72		0.41	0.43		0.51	0.83		0.60	0.73	
Uniform Delay, d1	16.2	20.2		31.8	23.1		38.9	39.3		45.9	43.8	
Progression Factor	1.00	1.00		1.42	0.79		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.5		0.6	0.9		0.5	11.9		4.2	9.0	
Delay (s)	16.3	22.8		45.9	19.2		39.4	51.2		50.2	52.7	
Level of Service	B	C		D	B		D	D		D	D	
Approach Delay (s)		22.5			21.8			47.7			52.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



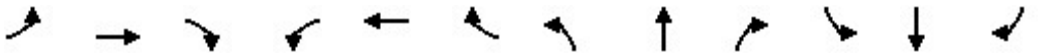
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	1084	11	6	498	8	7	3	16	7	6	149
Future Volume (vph)	231	1084	11	6	498	8	7	3	16	7	6	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.87			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1752	3530		1805	3451		1543	1543			1694	1529
Flt Permitted	0.43	1.00		0.22	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	798	3530		414	3451		1543	1543			1694	1529
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)	241	1129	11	6	519	8	7	3	17	7	6	155
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	145
Lane Group Flow (vph)	241	1140	0	6	527	0	7	20	0	0	13	10
Confl. Peds. (#/hr)			2			5			13	13		
Confl. Bikes (#/hr)			1			4						1
Heavy Vehicles (%)	3%	2%	11%	0%	4%	25%	17%	33%	0%	0%	20%	4%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	80.2	79.2		80.2	62.0		4.2	4.2			7.1	7.1
Effective Green, g (s)	80.2	79.2		80.2	62.0		4.2	4.2			7.1	7.1
Actuated g/C Ratio	0.73	0.72		0.73	0.56		0.04	0.04			0.06	0.06
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	739	2541		314	1945		58	58			109	98
v/s Ratio Prot	0.05	c0.32		0.00	0.15		0.00	c0.01			c0.01	
v/s Ratio Perm	c0.18			0.01								0.01
v/c Ratio	0.33	0.45		0.02	0.27		0.12	0.34			0.12	0.10
Uniform Delay, d1	7.0	6.4		4.5	12.4		51.1	51.6			48.5	48.4
Progression Factor	1.30	1.23		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.3		0.3	1.3			0.2	0.2
Delay (s)	9.1	8.3		4.5	12.7		51.5	52.9			48.7	48.6
Level of Service	A	A		A	B		D	D			D	D
Approach Delay (s)		8.4			12.6			52.5			48.6	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1321	5	0	684	0	15
Future Volume (Veh/h)	1321	5	0	684	0	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1436	5	0	743	0	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				364		
pX, platoon unblocked					0.88	
vC, conflicting volume			1441		1810	720
vC1, stage 1 conf vol					1438	
vC2, stage 2 conf vol					372	
vCu, unblocked vol			1441		1653	720
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			467		179	370

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	957	484	372	372	16
Volume Left	0	0	0	0	0
Volume Right	0	5	0	0	16
cSH	1700	1700	1700	1700	370
Volume to Capacity	0.56	0.28	0.22	0.22	0.04
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	15.2
Lane LOS					C
Approach Delay (s)	0.0		0.0		15.2
Approach LOS					C

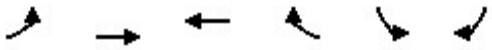
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	5	10	0	21	4	479	71	56	292	6
Future Volume (Veh/h)	8	0	5	10	0	21	4	479	71	56	292	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	0	5	11	0	23	4	521	77	61	317	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											476	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	994	1048	320	1012	1014	560	324			598		
vC1, stage 1 conf vol	442	442		568	568							
vC2, stage 2 conf vol	552	606		444	446							
vCu, unblocked vol	951	1010	219	969	972	560	223			598		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	97	100	96	100			94		
cM capacity (veh/h)	379	371	756	412	410	528	1239			979		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	14	11	23	4	598	61	324
Volume Left	9	11	0	4	0	61	0
Volume Right	5	0	23	0	77	0	7
cSH	461	412	528	1239	1700	979	1700
Volume to Capacity	0.03	0.03	0.04	0.00	0.35	0.06	0.19
Queue Length 95th (ft)	2	2	3	0	0	5	0
Control Delay (s)	13.1	14.0	12.1	7.9	0.0	8.9	0.0
Lane LOS	B	B	B	A		A	
Approach Delay (s)	13.1	12.7		0.1		1.4	
Approach LOS	B	B					

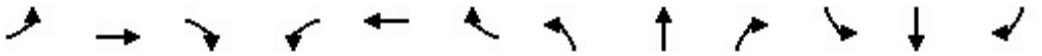
Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	50.3%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	932	1124	38	16	87
Future Volume (Veh/h)	49	932	1124	38	16	87
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	51	961	1159	39	16	90
Pedestrians			1		4	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			3.5		3.5	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			702			
pX, platoon unblocked	0.76				0.76	0.76
vC, conflicting volume	1202				1766	603
vC1, stage 1 conf vol					1182	
vC2, stage 2 conf vol					584	
vCu, unblocked vol	632				1374	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	93				95	89
cM capacity (veh/h)	727				311	825

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	51	480	480	773	425	106
Volume Left	51	0	0	0	0	16
Volume Right	0	0	0	0	39	90
cSH	727	1700	1700	1700	1700	660
Volume to Capacity	0.07	0.28	0.28	0.45	0.25	0.16
Queue Length 95th (ft)	6	0	0	0	0	14
Control Delay (s)	10.3	0.0	0.0	0.0	0.0	11.5
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		11.5
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	748	131	131	953	151	154	288	73	130	308	46
Future Volume (vph)	79	748	131	131	953	151	154	288	73	130	308	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3499		1805	3490		1787	1819		1805	1837	
Flt Permitted	0.13	1.00		0.18	1.00		0.19	1.00		0.21	1.00	
Satd. Flow (perm)	253	3499		339	3490		354	1819		395	1837	
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)	82	779	136	136	993	157	160	300	76	135	321	48
RTOR Reduction (vph)	0	10	0	0	8	0	0	8	0	0	5	0
Lane Group Flow (vph)	82	905	0	136	1142	0	160	368	0	135	364	0
Confl. Peds. (#/hr)			9			4			9			7
Confl. Bikes (#/hr)			1			2						1
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	62.4	48.3		62.4	57.2		39.1	30.4		39.1	28.5	
Effective Green, g (s)	62.4	48.3		62.4	57.2		39.1	30.4		39.1	28.5	
Actuated g/C Ratio	0.52	0.40		0.52	0.48		0.33	0.25		0.33	0.24	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	198	1408		348	1663		241	460		230	436	
v/s Ratio Prot	0.02	c0.26		0.05	c0.33		c0.06	c0.20		0.04	0.20	
v/s Ratio Perm	0.20			0.16			0.16			0.15		
v/c Ratio	0.41	0.64		0.39	0.69		0.66	0.80		0.59	0.84	
Uniform Delay, d1	18.0	28.9		33.1	24.4		31.7	41.9		31.1	43.5	
Progression Factor	1.00	1.00		0.64	0.68		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	2.3		0.2	2.1		5.2	9.1		2.5	12.8	
Delay (s)	18.5	31.2		21.5	18.8		36.9	51.1		33.6	56.3	
Level of Service	B	C		C	B		D	D		C	E	
Approach Delay (s)		30.1			19.1			46.8			50.2	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

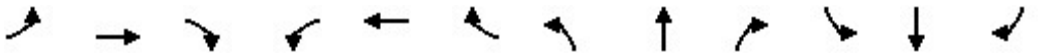
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	783	8	11	985	24	8	6	12	11	9	226
Future Volume (vph)	160	783	8	11	985	24	8	6	12	11	9	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.97			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.90			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1805	3567		1805	3559		1805	1654			1850	1583
Flt Permitted	0.21	1.00		0.32	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	408	3567		599	3559		1805	1654			1850	1583
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)	170	833	9	12	1048	26	9	6	13	12	10	240
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	224
Lane Group Flow (vph)	170	842	0	12	1073	0	9	19	0	0	22	16
Confl. Peds. (#/hr)			6			6			20	20		1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	89.3	87.3		89.3	75.8		4.1	4.1			8.1	8.1
Effective Green, g (s)	89.3	87.3		89.3	75.8		4.1	4.1			8.1	8.1
Actuated g/C Ratio	0.74	0.73		0.74	0.63		0.03	0.03			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	460	2594		465	2248		61	56			124	106
v/s Ratio Prot	c0.04	0.24		0.00	c0.30		0.00	c0.01			c0.01	
v/s Ratio Perm	0.23			0.02								0.01
v/c Ratio	0.37	0.32		0.03	0.48		0.15	0.34			0.18	0.15
Uniform Delay, d1	13.0	5.8		4.1	11.7		56.3	56.6			52.8	52.7
Progression Factor	0.68	0.28		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.3		0.0	0.7		0.4	1.3			0.3	0.2
Delay (s)	9.0	1.9		4.1	12.4		56.7	57.9			53.1	53.0
Level of Service	A	A		A	B		E	E			D	D
Approach Delay (s)		3.1			12.3			57.5			53.0	
Approach LOS		A			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	938	7	0	1161	0	6
Future Volume (Veh/h)	938	7	0	1161	0	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1020	8	0	1262	0	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				392		
pX, platoon unblocked					0.75	
vC, conflicting volume			1028		1655	514
vC1, stage 1 conf vol					1024	
vC2, stage 2 conf vol					631	
vCu, unblocked vol			1028		1205	514
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			671		290	505

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	680	348	631	631	7
Volume Left	0	0	0	0	0
Volume Right	0	8	0	0	7
cSH	1700	1700	1700	1700	505
Volume to Capacity	0.40	0.20	0.37	0.37	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	12.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.2
Approach LOS					B

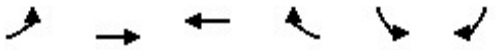
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	3	35	0	53	3	456	17	24	534	12
Future Volume (Veh/h)	6	0	3	35	0	53	3	456	17	24	534	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	0	3	38	0	58	3	496	18	26	580	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											470	
pX, platoon unblocked	0.78	0.78	0.78	0.78	0.78		0.78					
vC, conflicting volume	1198	1158	586	1146	1156	505	593			514		
vC1, stage 1 conf vol	638	638		511	511							
vC2, stage 2 conf vol	560	520		635	645							
vCu, unblocked vol	1113	1062	329	1046	1059	505	337			514		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	90	100	90	100			98		
cM capacity (veh/h)	337	367	556	380	372	567	953			1052		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	10	38	58	3	514	26	593
Volume Left	7	38	0	3	0	26	0
Volume Right	3	0	58	0	18	0	13
cSH	382	380	567	953	1700	1052	1700
Volume to Capacity	0.03	0.10	0.10	0.00	0.30	0.02	0.35
Queue Length 95th (ft)	2	8	8	0	0	2	0
Control Delay (s)	14.7	15.5	12.1	8.8	0.0	8.5	0.0
Lane LOS	B	C	B	A		A	
Approach Delay (s)	14.7	13.4		0.1		0.4	
Approach LOS	B	B					

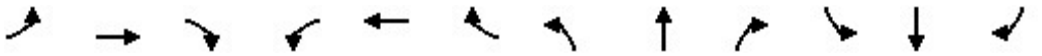
Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	41.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	1551	794	14	19	73
Future Volume (Veh/h)	71	1551	794	14	19	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	71	1551	794	14	19	73
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			710			
pX, platoon unblocked	0.86				0.86	0.86
vC, conflicting volume	811				1722	407
vC1, stage 1 conf vol					804	
vC2, stage 2 conf vol					918	
vCu, unblocked vol	463				1518	0
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	92				93	92
cM capacity (veh/h)	929				282	933

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	71	776	776	529	279	92
Volume Left	71	0	0	0	0	19
Volume Right	0	0	0	0	14	73
cSH	929	1700	1700	1700	1700	632
Volume to Capacity	0.08	0.46	0.46	0.31	0.16	0.15
Queue Length 95th (ft)	6	0	0	0	0	13
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	11.7
Lane LOS	A					B
Approach Delay (s)	0.4			0.0		11.7
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

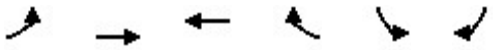


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	1376	136	76	600	110	173	343	82	103	205	35
Future Volume (vph)	73	1376	136	76	600	110	173	343	82	103	205	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3468		1687	3377		1719	1766		1752	1708	
Flt Permitted	0.28	1.00		0.08	1.00		0.34	1.00		0.17	1.00	
Satd. Flow (perm)	513	3468		134	3377		612	1766		316	1708	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	73	1376	136	76	600	110	173	343	82	103	205	35
RTOR Reduction (vph)	0	6	0	0	13	0	0	8	0	0	7	0
Lane Group Flow (vph)	73	1506	0	76	697	0	173	417	0	103	233	0
Confl. Peds. (#/hr)			2			5			11			4
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	4%	2%	7%	7%	3%	8%	5%	3%	8%	3%	10%	0%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	57.4	53.1		57.4	44.3		34.1	29.7		34.1	19.9	
Effective Green, g (s)	57.4	53.1		57.4	44.3		34.1	29.7		34.1	19.9	
Actuated g/C Ratio	0.52	0.48		0.52	0.40		0.31	0.27		0.31	0.18	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	413	1674		130	1360		332	476		155	308	
v/s Ratio Prot	0.02	c0.43		c0.02	0.21		c0.07	c0.24		0.03	0.14	
v/s Ratio Perm	0.07			0.28			0.09			0.18		
v/c Ratio	0.18	0.90		0.58	0.51		0.52	0.88		0.66	0.76	
Uniform Delay, d1	21.0	26.0		44.4	24.7		37.3	38.4		46.1	42.8	
Progression Factor	1.00	1.00		0.98	0.60		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	8.2		4.1	1.3		0.7	16.3		8.0	9.7	
Delay (s)	21.1	34.2		47.5	16.1		38.0	54.6		54.1	52.5	
Level of Service	C	C		D	B		D	D		D	D	
Approach Delay (s)		33.6			19.1			49.8			53.0	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	272	1278	13	8	590	10	9	4	19	9	8	178
Future Volume (vph)	272	1278	13	8	590	10	9	4	19	9	8	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.88			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1752	3530		1805	3449		1543	1539			1692	1529
Flt Permitted	0.38	1.00		0.18	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	705	3530		336	3449		1543	1539			1692	1529
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	272	1278	13	8	590	10	9	4	19	9	8	178
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	166
Lane Group Flow (vph)	272	1291	0	8	599	0	9	23	0	0	17	12
Confl. Peds. (#/hr)			2			5			13	13		
Confl. Bikes (#/hr)			1			4						1
Heavy Vehicles (%)	3%	2%	11%	0%	4%	25%	17%	33%	0%	0%	20%	4%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	79.5	78.5		79.5	57.0		4.4	4.4			7.6	7.6
Effective Green, g (s)	79.5	78.5		79.5	57.0		4.4	4.4			7.6	7.6
Actuated g/C Ratio	0.72	0.71		0.72	0.52		0.04	0.04			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	723	2519		256	1787		61	61			116	105
v/s Ratio Prot	0.08	c0.37		0.00	0.17		0.01	c0.01			c0.01	
v/s Ratio Perm	c0.19			0.02								0.01
v/c Ratio	0.38	0.51		0.03	0.34		0.15	0.38			0.15	0.12
Uniform Delay, d1	9.2	7.1		5.1	15.5		51.0	51.5			48.2	48.1
Progression Factor	0.38	0.36		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.5		0.4	1.4			0.2	0.2
Delay (s)	3.5	2.9		5.1	16.0		51.4	52.9			48.4	48.2
Level of Service	A	A		A	B		D	D			D	D
Approach Delay (s)		3.0			15.8			52.5			48.2	
Approach LOS		A			B			D			D	

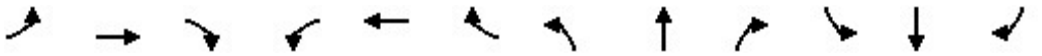
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	1120	1355	47	19	106
Future Volume (Veh/h)	59	1120	1355	47	19	106
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	59	1120	1355	47	19	106
Pedestrians			1		4	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			3.5		3.5	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			705			
pX, platoon unblocked	0.65				0.65	0.65
vC, conflicting volume	1406				2062	705
vC1, stage 1 conf vol					1382	
vC2, stage 2 conf vol					679	
vCu, unblocked vol	566				1567	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	91				93	85
cM capacity (veh/h)	663				276	712

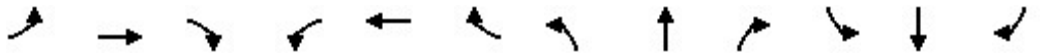
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	59	560	560	903	499	125
Volume Left	59	0	0	0	0	19
Volume Right	0	0	0	0	47	106
cSH	663	1700	1700	1700	1700	574
Volume to Capacity	0.09	0.33	0.33	0.53	0.29	0.22
Queue Length 95th (ft)	7	0	0	0	0	21
Control Delay (s)	11.0	0.0	0.0	0.0	0.0	13.0
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		13.0
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		



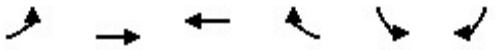
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	901	159	149	1154	183	179	349	88	158	368	55
Future Volume (vph)	93	901	159	149	1154	183	179	349	88	158	368	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3498		1805	3489		1787	1820		1805	1837	
Flt Permitted	0.08	1.00		0.09	1.00		0.16	1.00		0.17	1.00	
Satd. Flow (perm)	147	3498		177	3489		296	1820		328	1837	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	93	901	159	149	1154	183	179	349	88	158	368	55
RTOR Reduction (vph)	0	11	0	0	10	0	0	8	0	0	4	0
Lane Group Flow (vph)	93	1049	0	149	1327	0	179	429	0	158	419	0
Confl. Peds. (#/hr)			9			4			9			7
Confl. Bikes (#/hr)			1			2						1
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	58.2	43.8		58.2	51.8		43.3	34.1		43.3	31.8	
Effective Green, g (s)	58.2	43.8		58.2	51.8		43.3	34.1		43.3	31.8	
Actuated g/C Ratio	0.49	0.36		0.49	0.43		0.36	0.28		0.36	0.27	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	159	1276		281	1506		249	517		231	486	
v/s Ratio Prot	0.03	c0.30		0.06	c0.38		c0.07	c0.24		0.05	0.23	
v/s Ratio Perm	0.25			0.19			0.19			0.19		
v/c Ratio	0.58	0.82		0.53	0.88		0.72	0.83		0.68	0.86	
Uniform Delay, d1	24.1	34.6		41.0	31.3		29.7	40.2		29.4	42.0	
Progression Factor	1.00	1.00		0.72	0.70		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.5	6.0		0.8	6.9		8.0	10.7		6.5	14.4	
Delay (s)	27.6	40.6		30.3	28.9		37.7	50.9		35.9	56.4	
Level of Service	C	D		C	C		D	D		D	E	
Approach Delay (s)		39.6			29.0			47.1			50.8	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	38.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	945	10	14	1184	29	10	8	15	14	11	272
Future Volume (vph)	193	945	10	14	1184	29	10	8	15	14	11	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.97			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.90			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1805	3568		1805	3559		1805	1666			1848	1584
Flt Permitted	0.17	1.00		0.27	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	330	3568		521	3559		1805	1666			1848	1584
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	193	945	10	14	1184	29	10	8	15	14	11	272
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	253
Lane Group Flow (vph)	193	955	0	14	1212	0	10	23	0	0	25	19
Confl. Peds. (#/hr)			6			6			20			1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	88.9	86.9		88.9	75.5		4.3	4.3			8.3	8.3
Effective Green, g (s)	88.9	86.9		88.9	75.5		4.3	4.3			8.3	8.3
Actuated g/C Ratio	0.74	0.72		0.74	0.63		0.04	0.04			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	409	2583		407	2239		64	59			127	109
v/s Ratio Prot	c0.05	0.27		0.00	c0.34		0.01	c0.01			c0.01	
v/s Ratio Perm	0.30			0.02								0.01
v/c Ratio	0.47	0.37		0.03	0.54		0.16	0.39			0.20	0.17
Uniform Delay, d1	18.6	6.2		4.3	12.5		56.1	56.6			52.7	52.6
Progression Factor	0.68	0.28		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.2	0.2		0.0	0.9		0.4	1.6			0.3	0.3
Delay (s)	12.9	2.0		4.3	13.5		56.5	58.1			53.0	52.9
Level of Service	B	A		A	B		E	E			D	D
Approach Delay (s)		3.8			13.4			57.6			52.9	
Approach LOS		A			B			E			D	

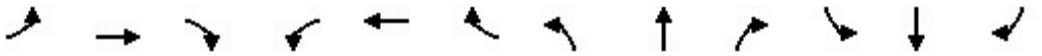
Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	1556	800	14	19	73
Future Volume (Veh/h)	71	1556	800	14	19	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	71	1556	800	14	19	73
Pedestrians					3	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			710			
pX, platoon unblocked	0.86				0.86	0.86
vC, conflicting volume	817				1730	410
vC1, stage 1 conf vol					810	
vC2, stage 2 conf vol					920	
vCu, unblocked vol	471				1528	0
tC, single (s)	4.2				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	92				93	92
cM capacity (veh/h)	924				280	933

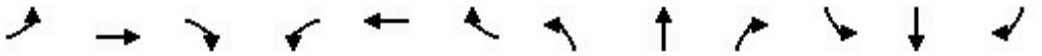
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	71	778	778	533	281	92
Volume Left	71	0	0	0	0	19
Volume Right	0	0	0	0	14	73
cSH	924	1700	1700	1700	1700	630
Volume to Capacity	0.08	0.46	0.46	0.31	0.17	0.15
Queue Length 95th (ft)	6	0	0	0	0	13
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	11.7
Lane LOS	A					B
Approach Delay (s)	0.4			0.0		11.7
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	1387	136	78	600	110	179	343	82	103	206	35
Future Volume (vph)	77	1387	136	78	600	110	179	343	82	103	206	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1736	3468		1687	3377		1719	1766		1752	1708	
Flt Permitted	0.28	1.00		0.08	1.00		0.34	1.00		0.17	1.00	
Satd. Flow (perm)	513	3468		134	3377		611	1766		316	1708	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	77	1387	136	78	600	110	179	343	82	103	206	35
RTOR Reduction (vph)	0	5	0	0	13	0	0	8	0	0	7	0
Lane Group Flow (vph)	77	1518	0	78	697	0	179	417	0	103	234	0
Confl. Peds. (#/hr)			2			5			11			4
Confl. Bikes (#/hr)			2			5			1			
Heavy Vehicles (%)	4%	2%	7%	7%	3%	8%	5%	3%	8%	3%	10%	0%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	57.4	53.0		57.4	44.3		34.1	29.7		34.1	20.0	
Effective Green, g (s)	57.4	53.0		57.4	44.3		34.1	29.7		34.1	20.0	
Actuated g/C Ratio	0.52	0.48		0.52	0.40		0.31	0.27		0.31	0.18	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	413	1670		132	1360		331	476		155	310	
v/s Ratio Prot	0.02	c0.44		c0.02	0.21		c0.07	c0.24		0.03	0.14	
v/s Ratio Perm	0.08			0.28			0.10			0.18		
v/c Ratio	0.19	0.91		0.59	0.51		0.54	0.88		0.66	0.76	
Uniform Delay, d1	21.1	26.3		44.7	24.7		37.4	38.4		46.1	42.7	
Progression Factor	1.00	1.00		0.98	0.59		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	8.8		4.4	1.3		1.0	16.3		8.0	9.6	
Delay (s)	21.2	35.1		48.1	16.0		38.4	54.6		54.1	52.3	
Level of Service	C	D		D	B		D	D		D	D	
Approach Delay (s)		34.4			19.2			49.8			52.8	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



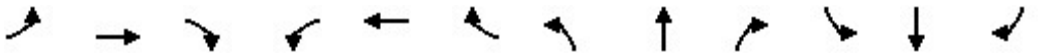
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	1287	13	8	592	10	9	4	19	9	8	178
Future Volume (vph)	274	1287	13	8	592	10	9	4	19	9	8	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.98			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.88			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1752	3530		1805	3449		1543	1539			1692	1529
Flt Permitted	0.38	1.00		0.17	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	702	3530		332	3449		1543	1539			1692	1529
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	274	1287	13	8	592	10	9	4	19	9	8	178
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	166
Lane Group Flow (vph)	274	1300	0	8	601	0	9	23	0	0	17	12
Confl. Peds. (#/hr)			2			5			13	13		
Confl. Bikes (#/hr)			1			4						1
Heavy Vehicles (%)	3%	2%	11%	0%	4%	25%	17%	33%	0%	0%	20%	4%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	79.5	78.5		79.5	56.8		4.4	4.4			7.6	7.6
Effective Green, g (s)	79.5	78.5		79.5	56.8		4.4	4.4			7.6	7.6
Actuated g/C Ratio	0.72	0.71		0.72	0.52		0.04	0.04			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	724	2519		253	1780		61	61			116	105
v/s Ratio Prot	0.08	c0.37		0.00	0.17		0.01	c0.01			c0.01	
v/s Ratio Perm	c0.20			0.02								0.01
v/c Ratio	0.38	0.52		0.03	0.34		0.15	0.38			0.15	0.12
Uniform Delay, d1	9.2	7.1		5.1	15.6		51.0	51.5			48.2	48.1
Progression Factor	0.37	0.35		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.5		0.4	1.4			0.2	0.2
Delay (s)	3.5	2.9		5.2	16.1		51.4	52.9			48.4	48.2
Level of Service	A	A		A	B		D	D			D	D
Approach Delay (s)		3.0			16.0			52.5			48.2	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1570	5	0	812	0	15
Future Volume (Veh/h)	1570	5	0	812	0	15
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1570	5	0	812	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				364		
pX, platoon unblocked					0.85	
vC, conflicting volume			1575		1978	788
vC1, stage 1 conf vol					1572	
vC2, stage 2 conf vol					406	
vCu, unblocked vol			1575		1803	788
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			414		151	334

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	1047	528	406	406	15
Volume Left	0	0	0	0	0
Volume Right	0	5	0	0	15
cSH	1700	1700	1700	1700	334
Volume to Capacity	0.62	0.31	0.24	0.24	0.04
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	16.3
Lane LOS					C
Approach Delay (s)	0.0		0.0		16.3
Approach LOS					C

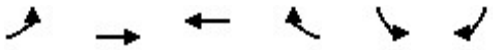
Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	6	11	0	25	5	570	84	67	346	7
Future Volume (Veh/h)	9	0	6	11	0	25	5	570	84	67	346	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	9	0	6	11	0	25	5	570	84	67	346	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											480	
pX, platoon unblocked	0.90	0.90	0.90	0.90	0.90		0.90					
vC, conflicting volume	1088	1148	350	1108	1109	612	353			654		
vC1, stage 1 conf vol	484	484		622	622							
vC2, stage 2 conf vol	605	664		486	487							
vCu, unblocked vol	1044	1109	225	1066	1067	612	229			654		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	97	100	95	100			93		
cM capacity (veh/h)	342	339	735	379	381	493	1208			933		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	11	25	5	654	67	353
Volume Left	9	11	0	5	0	67	0
Volume Right	6	0	25	0	84	0	7
cSH	435	379	493	1208	1700	933	1700
Volume to Capacity	0.03	0.03	0.05	0.00	0.38	0.07	0.21
Queue Length 95th (ft)	3	2	4	0	0	6	0
Control Delay (s)	13.6	14.8	12.7	8.0	0.0	9.2	0.0
Lane LOS	B	B	B	A		A	
Approach Delay (s)	13.6	13.3		0.1		1.5	
Approach LOS	B	B					

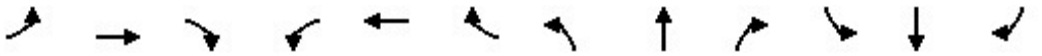
Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	56.3%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	1127	1361	47	19	106
Future Volume (Veh/h)	59	1127	1361	47	19	106
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	59	1127	1361	47	19	106
Pedestrians			1		4	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			3.5		3.5	
Percent Blockage			0		0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			705			
pX, platoon unblocked	0.65				0.65	0.65
vC, conflicting volume	1412				2071	708
vC1, stage 1 conf vol					1388	
vC2, stage 2 conf vol					682	
vCu, unblocked vol	564				1575	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	91				93	85
cM capacity (veh/h)	661				275	708

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	59	564	564	907	501	125
Volume Left	59	0	0	0	0	19
Volume Right	0	0	0	0	47	106
cSH	661	1700	1700	1700	1700	571
Volume to Capacity	0.09	0.33	0.33	0.53	0.29	0.22
Queue Length 95th (ft)	7	0	0	0	0	21
Control Delay (s)	11.0	0.0	0.0	0.0	0.0	13.1
Lane LOS	B					B
Approach Delay (s)	0.5			0.0		13.1
Approach LOS						B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		

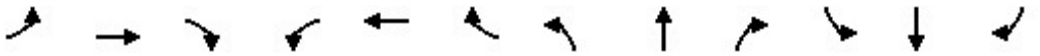


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	905	159	157	1154	183	185	349	88	158	372	55
Future Volume (vph)	95	905	159	157	1154	183	185	349	88	158	372	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3498		1805	3489		1787	1820		1805	1837	
Flt Permitted	0.08	1.00		0.09	1.00		0.15	1.00		0.18	1.00	
Satd. Flow (perm)	148	3498		176	3489		288	1820		341	1837	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	95	905	159	157	1154	183	185	349	88	158	372	55
RTOR Reduction (vph)	0	12	0	0	10	0	0	8	0	0	4	0
Lane Group Flow (vph)	95	1052	0	157	1327	0	185	429	0	158	423	0
Confl. Peds. (#/hr)			9			4			9			7
Confl. Bikes (#/hr)			1			2						1
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Turn Type	D.P+P	NA		D.P+P	NA		D.P+P	NA		D.P+P	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	57.7	43.3		57.7	51.2		43.8	34.6		43.8	31.9	
Effective Green, g (s)	57.7	43.3		57.7	51.2		43.8	34.6		43.8	31.9	
Actuated g/C Ratio	0.48	0.36		0.48	0.43		0.36	0.29		0.36	0.27	
Clearance Time (s)	4.0	5.5		4.0	5.5		4.0	5.0		4.0	5.0	
Vehicle Extension (s)	1.0	3.5		1.0	3.5		1.0	2.5		1.0	2.5	
Lane Grp Cap (vph)	160	1262		280	1488		253	524		236	488	
v/s Ratio Prot	0.03	c0.30		0.07	c0.38		c0.07	c0.24		0.05	0.23	
v/s Ratio Perm	0.25			0.20			0.19			0.19		
v/c Ratio	0.59	0.83		0.56	0.89		0.73	0.82		0.67	0.87	
Uniform Delay, d1	24.5	35.1		41.6	31.8		29.6	39.8		29.0	42.0	
Progression Factor	1.00	1.00		0.73	0.71		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.9	6.6		1.3	7.5		9.0	9.4		5.5	14.7	
Delay (s)	28.4	41.6		31.5	30.0		38.6	49.2		34.5	56.7	
Level of Service	C	D		C	C		D	D		C	E	
Approach Delay (s)		40.6			30.2			46.1			50.7	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	948	10	14	1191	29	10	8	15	14	11	273
Future Volume (vph)	194	948	10	14	1191	29	10	8	15	14	11	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.97			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00		1.00	0.90			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.97	1.00
Satd. Flow (prot)	1805	3568		1805	3559		1805	1666			1848	1584
Flt Permitted	0.17	1.00		0.27	1.00		0.95	1.00			0.97	1.00
Satd. Flow (perm)	326	3568		520	3559		1805	1666			1848	1584
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	948	10	14	1191	29	10	8	15	14	11	273
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	0	254
Lane Group Flow (vph)	194	958	0	14	1219	0	10	23	0	0	25	19
Confl. Peds. (#/hr)			6			6			20			1
Confl. Bikes (#/hr)			1						1			1
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	Perm
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	2			6								8
Actuated Green, G (s)	88.9	86.9		88.9	75.4		4.3	4.3			8.3	8.3
Effective Green, g (s)	88.9	86.9		88.9	75.4		4.3	4.3			8.3	8.3
Actuated g/C Ratio	0.74	0.72		0.74	0.63		0.04	0.04			0.07	0.07
Clearance Time (s)	4.0	5.5		4.0	5.5		4.5	4.5			4.5	4.5
Vehicle Extension (s)	1.5	3.1		1.5	3.1		2.0	2.0			2.0	2.0
Lane Grp Cap (vph)	407	2583		406	2236		64	59			127	109
v/s Ratio Prot	c0.05	0.27		0.00	c0.34		0.01	c0.01			c0.01	
v/s Ratio Perm	0.30			0.02								0.01
v/c Ratio	0.48	0.37		0.03	0.55		0.16	0.39			0.20	0.17
Uniform Delay, d1	19.0	6.2		4.3	12.6		56.1	56.6			52.7	52.6
Progression Factor	0.68	0.28		1.00	1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	0.2	0.2		0.0	1.0		0.4	1.6			0.3	0.3
Delay (s)	13.2	2.0		4.3	13.6		56.5	58.1			53.0	52.9
Level of Service	B	A		A	B		E	E			D	D
Approach Delay (s)		3.9			13.5			57.6			52.9	
Approach LOS		A			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.5
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	0	3	43	0	64	3	552	20	29	647	12
Future Volume (Veh/h)	6	0	3	43	0	64	3	552	20	29	647	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	6	0	3	43	0	64	3	552	20	29	647	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											466	
pX, platoon unblocked	0.73	0.73	0.73	0.73	0.73		0.73					
vC, conflicting volume	1333	1289	653	1276	1285	562	659			572		
vC1, stage 1 conf vol	711	711		568	568							
vC2, stage 2 conf vol	622	578		708	717							
vCu, unblocked vol	1273	1213	347	1195	1207	562	355			572		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	87	100	88	100			97		
cM capacity (veh/h)	295	329	511	339	335	526	884			1001		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	9	43	64	3	572	29	659
Volume Left	6	43	0	3	0	29	0
Volume Right	3	0	64	0	20	0	12
cSH	343	339	526	884	1700	1001	1700
Volume to Capacity	0.03	0.13	0.12	0.00	0.34	0.03	0.39
Queue Length 95th (ft)	2	11	10	0	0	2	0
Control Delay (s)	15.8	17.2	12.8	9.1	0.0	8.7	0.0
Lane LOS	C	C	B	A		A	
Approach Delay (s)	15.8	14.5		0.0		0.4	
Approach LOS	C	B					

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	47.2%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1137	7	0	1406	0	6
Future Volume (Veh/h)	1137	7	0	1406	0	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	1137	7	0	1406	0	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				395		
pX, platoon unblocked					0.65	
vC, conflicting volume			1144		1844	572
vC1, stage 1 conf vol					1140	
vC2, stage 2 conf vol					703	
vCu, unblocked vol			1144		1217	572
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			606		252	463

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	758	386	703	703	6
Volume Left	0	0	0	0	0
Volume Right	0	7	0	0	6
cSH	1700	1700	1700	1700	463
Volume to Capacity	0.45	0.23	0.41	0.41	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	12.9
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.9
Approach LOS					B

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix F: Queueing Reports

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	172	371	385	124	175	186	273	420	213	295
Average Queue (ft)	43	215	204	46	65	78	109	204	65	136
95th Queue (ft)	122	327	324	97	134	150	228	348	137	243
Link Distance (ft)		1998	1998		798	798		1534		616
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)		5					0	5		1
Queuing Penalty (veh)		3					0	7		1

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	143	127	142	27	179	154	47	77	57	100
Average Queue (ft)	54	26	32	4	70	44	6	19	16	45
95th Queue (ft)	107	82	96	20	149	117	27	54	45	77
Link Distance (ft)		798	798		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)										
Queuing Penalty (veh)										

Network Summary

Network wide Queuing Penalty: 11

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	243	382	390	294	401	413	264	384	274	413
Average Queue (ft)	57	208	219	82	180	204	105	223	89	220
95th Queue (ft)	148	328	339	184	332	355	230	360	209	357
Link Distance (ft)		2973	2973		896	896		1534		616
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)		6			0		0	6	0	6
Queuing Penalty (veh)		4			0		0	8	0	7

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	160	101	126	33	341	293	46	65	77	171
Average Queue (ft)	63	25	32	7	143	119	7	18	25	72
95th Queue (ft)	126	74	89	26	275	245	32	52	63	133
Link Distance (ft)		896	896		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)					0					0
Queuing Penalty (veh)					0					0

Network Summary

Network wide Queuing Penalty: 20

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	259	464	448	124	199	207	274	449	193	319
Average Queue (ft)	59	267	254	49	74	90	113	225	68	139
95th Queue (ft)	181	427	411	102	157	175	233	385	139	249
Link Distance (ft)		1903	1903		896	896		1534		616
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	12					0	7		2
Queuing Penalty (veh)	0	7					0	11		1

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	196	170	178	30	211	205	49	77	50	96
Average Queue (ft)	62	30	36	4	80	55	7	22	15	48
95th Queue (ft)	130	106	108	20	178	149	32	60	44	77
Link Distance (ft)		896	896		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)	0	0								
Queuing Penalty (veh)	1	0								

Network Summary

Network wide Queuing Penalty: 20

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	246	423	392	243	413	426	274	407	274	467
Average Queue (ft)	65	222	213	81	177	202	114	228	97	230
95th Queue (ft)	167	349	338	183	353	370	245	360	218	378
Link Distance (ft)		1847	1847		895	895		856		616
Upstream Blk Time (%)										0
Queuing Penalty (veh)										0
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)		7			1		0	6	0	5
Queuing Penalty (veh)		6			1		0	9	0	7

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	162	98	107	39	347	309	46	62	72	166
Average Queue (ft)	63	26	28	7	159	135	8	17	22	74
95th Queue (ft)	124	72	82	29	295	273	32	49	57	129
Link Distance (ft)		895	895		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Network Summary

Network wide Queuing Penalty: 23

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	247	437	428	135	226	266	274	455	190	294
Average Queue (ft)	68	257	248	54	85	102	125	214	67	145
95th Queue (ft)	204	399	389	107	174	200	246	361	141	249
Link Distance (ft)		2106	2106		878	878		1135		616
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	11					0	6	0	1
Queuing Penalty (veh)	0	7					0	9	0	1

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	196	269	270	32	200	180	45	72	53	98
Average Queue (ft)	71	57	67	4	73	45	6	23	14	46
95th Queue (ft)	148	175	196	21	167	127	29	61	43	78
Link Distance (ft)		878	878		1372	1372		899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330			175			300
Storage Blk Time (%)		0								
Queuing Penalty (veh)		1								

Network Summary

Network wide Queuing Penalty: 18

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	259	368	372	286	401	426	274	413	264	419
Average Queue (ft)	75	227	222	86	190	216	108	217	101	236
95th Queue (ft)	196	342	337	181	363	384	227	347	218	371
Link Distance (ft)		1877	1877		880	880		1486		616
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	8			1		0	4	0	6
Queuing Penalty (veh)	0	7			1		0	7	0	8

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	185	113	122	39	307	304	46	68	76	144
Average Queue (ft)	66	25	30	7	148	129	6	16	23	73
95th Queue (ft)	134	79	87	28	274	257	29	48	60	122
Link Distance (ft)		880	880		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Network Summary

Network wide Queuing Penalty: 23

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	823	821	183	308	351	275	576	255	364
Average Queue (ft)	95	490	489	70	128	146	160	301	93	192
95th Queue (ft)	261	797	791	151	257	280	299	491	191	314
Link Distance (ft)		2344	2344		878	878		2170		1223
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	34			0		0	14	0	3
Queuing Penalty (veh)	0	25			0		1	24	0	3

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	242	319	344	39	228	212	78	91	84	129
Average Queue (ft)	92	62	75	6	101	79	12	27	19	54
95th Queue (ft)	188	206	228	26	204	185	47	69	56	95
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)	0	0								
Queuing Penalty (veh)	1	1								

Network Summary

Network wide Queuing Penalty: 56

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	555	550	375	775	774	275	471	275	533
Average Queue (ft)	122	366	366	185	441	458	153	283	141	299
95th Queue (ft)	278	595	585	404	820	814	293	441	290	482
Link Distance (ft)		2428	2428		878	878		2375		1819
Upstream Blk Time (%)					1	1				
Queuing Penalty (veh)					5	5				
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	29		0	20		0	11	0	15
Queuing Penalty (veh)	0	27		0	29		1	20	2	23

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	242	176	169	136	493	472	47	73	89	214
Average Queue (ft)	98	29	35	14	250	227	10	21	28	111
95th Queue (ft)	194	101	106	84	476	449	36	58	69	189
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						250
Storage Blk Time (%)	0				5					0
Queuing Penalty (veh)	2				1					0

Network Summary

Network wide Queuing Penalty: 114

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	1296	1113	167	301	318	275	538	262	386
Average Queue (ft)	101	673	660	64	126	145	179	314	94	193
95th Queue (ft)	273	1231	1169	135	254	271	317	493	187	327
Link Distance (ft)		2518	2518		878	878		1489		1223
Upstream Blk Time (%)		0								
Queuing Penalty (veh)		0								
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	41			0		0	16	0	3
Queuing Penalty (veh)	0	32			0		2	29	1	3

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	262	372	371	41	248	227	64	76	76	112
Average Queue (ft)	93	68	80	7	102	79	11	26	19	53
95th Queue (ft)	191	230	248	28	205	181	44	64	56	89
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)	0	1								
Queuing Penalty (veh)	1	2								

Network Summary

Network wide Queuing Penalty: 69

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	554	559	375	816	818	275	589	275	640
Average Queue (ft)	123	349	352	204	482	498	165	306	164	326
95th Queue (ft)	280	530	528	427	876	875	312	512	312	563
Link Distance (ft)		2742	2742		878	878		1332		1151
Upstream Blk Time (%)					1	1				0
Queuing Penalty (veh)					7	6				0
Storage Bay Dist (ft)	235			350			250		250	
Storage Blk Time (%)	0	29		0	22		0	14	1	18
Queuing Penalty (veh)	0	27		0	35		1	26	3	29

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	242	196	172	171	559	524	50	72	136	229
Average Queue (ft)	106	36	39	21	278	255	10	25	31	115
95th Queue (ft)	207	147	116	127	527	506	37	63	102	200
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						250
Storage Blk Time (%)	1				9					0
Queuing Penalty (veh)	6				1					0

Network Summary

Network wide Queuing Penalty: 142

Appendix G: Mitigation Queueing Reports

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	685	663	260	197	291	322	275	604	260	388
Average Queue (ft)	87	375	366	116	80	134	154	171	318	95	192
95th Queue (ft)	242	597	588	299	169	258	280	315	526	190	311
Link Distance (ft)		2340	2340			878	878		1478		1223
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	235			235	350			250		250	
Storage Blk Time (%)	0	24	22	0		0		1	17	0	3
Queuing Penalty (veh)	0	19	30	1		0		4	30	0	3

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	264	375	392	35	262	242	63	79	67	115
Average Queue (ft)	101	67	83	6	95	69	11	26	19	55
95th Queue (ft)	213	235	260	26	201	175	41	62	54	93
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						300
Storage Blk Time (%)	0	1			0					
Queuing Penalty (veh)	3	2			0					

Network Summary

Network wide Queuing Penalty: 91

Intersection: 2: SW 170th Avenue & SW Baseline Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	260	416	421	260	375	837	829	274	498	275	636
Average Queue (ft)	93	263	269	116	210	537	551	139	266	152	325
95th Queue (ft)	221	385	395	279	451	968	962	277	420	299	553
Link Distance (ft)		3030	3030			878	878		1320		1151
Upstream Blk Time (%)						2	1				
Queuing Penalty (veh)						12	11				
Storage Bay Dist (ft)	235			235	350			250		250	
Storage Blk Time (%)	0	13	13	0	0	28		0	9	0	18
Queuing Penalty (veh)	0	12	21	0	0	43		1	16	2	29

Intersection: 3: Elmonica Park & Ride & SW Baseline Road & SW Jenkins Road

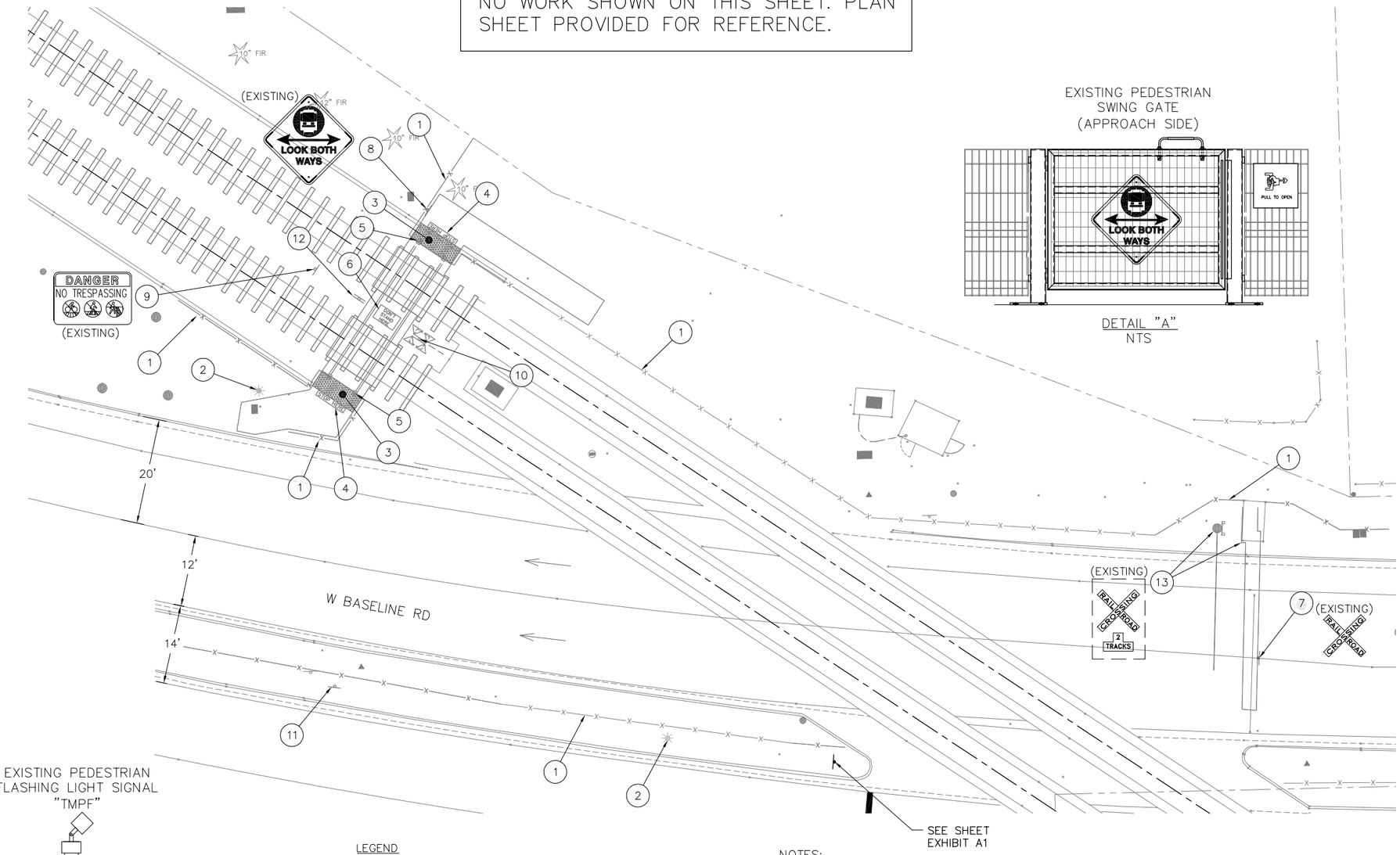
Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	LT	R
Maximum Queue (ft)	242	129	118	131	483	449	44	67	97	243
Average Queue (ft)	100	28	38	14	273	248	8	23	25	123
95th Queue (ft)	194	83	96	84	465	443	33	59	71	216
Link Distance (ft)		878	878		1372	1372	899	899	778	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			330						250
Storage Blk Time (%)	0				7					0
Queuing Penalty (veh)	1				1					0

Network Summary

Network wide Queuing Penalty: 150

Appendix H: Rail Order Plans

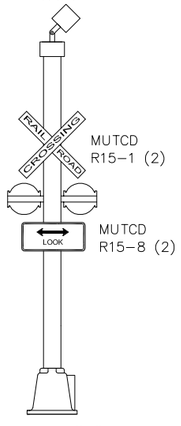
NO WORK SHOWN ON THIS SHEET. PLAN SHEET PROVIDED FOR REFERENCE.



EXISTING PEDESTRIAN SWING GATE (APPROACH SIDE)

DETAIL "A"
NTS

EXISTING PEDESTRIAN FLASHING LIGHT SIGNAL "TMPF"



DETAIL "B"
NTS

LEGEND

- CHAIN LINK FENCE
- ROW LINES
- TRACK CENTERLINE
- EXISTING LIGHT POLE AND FIXTURE

GENERAL NOTES:

1. MAINTAIN AND PROTECT EXISTING FEATURES UNLESS OTHERWISE NOTED.

NOTES:

1. MAINTAIN AND PROTECT EXISTING CHAIN LINK FENCE.
2. MAINTAIN AND PROTECT EXISTING STREET LIGHT POLE.
3. MAINTAIN AND PROTECT EXISTING PEDESTRIAN TACTILE STRIP.
4. MAINTAIN AND PROTECT EXISTING PEDESTRIAN "STOP HERE" PAVEMENT MARKINGS.
5. MAINTAIN AND PROTECT EXISTING PEDESTRIAN SWING GATE WITH "LOOK BOTH WAYS" SIGN MOUNTED TO GATE. SEE DETAIL "A" ON THIS SHEET.
6. MAINTAIN AND PROTECT EXISTING PEDESTRIAN "DON'T STAND HERE" PAVEMENT MARKINGS.
7. MAINTAIN AND PROTECT EXISTING RAILROAD CROSSING SIGN, MOUNTED ON EXISTING DOUBLE MAST CANTILEVER.
8. MAINTAIN AND PROTECT EXISTING "LOOK BOTH WAYS" SIGN, MOUNTED TO CHAIN LINK FENCE.
9. MAINTAIN AND PROTECT EXISTING "NO TRESPASSING" SIGN, MOUNTED ON EXISTING SQUARE SIGN POST.
10. MAINTAIN AND PROTECT EXISTING PEDESTRIAN FLASHING LIGHT SIGNAL WITH MUTCD SIGNS (2) R15-1, (2) R15-8. SEE DETAIL "B" ON THIS SHEET.
11. MAINTAIN AND PROTECT EXISTING "NO LEFT TURN" SIGN, R3-2, MOUNTED ON EXISTING SQUARE SIGN POST.
12. MAINTAIN AND PROTECT EXISTING 2 "LOOK BOTH WAYS" SIGNS, MOUNTED BACK TO BACK ON EXISTING SQUARE SIGN POST.
13. MAINTAIN AND PROTECT EXISTING GATE MECH, FLASHING LIGHTS, AND SIGNS.

SALAZARCHITECT inc
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PROJECT NUMBER: 2022

ELMONICA STATION

17030 SW BASELINE ROAD
BEAVERTON, OR 97006

CLIENT:

REACH CDC

GLOBAL Transportation Engineering
227 SW Pine St, Suite 220
Portland, Oregon 97204

REGISTERED PROFESSIONAL ENGINEER 75,113
OREGON DECEMBER 12, 2012 MONICA TERESA LEAL
EXPIRES: DEC. 31, 2022

PHASE:

SCHEMATIC DESIGN

REVISIONS:

#	DATE	DESCRIPTION

SHEET TITLE:

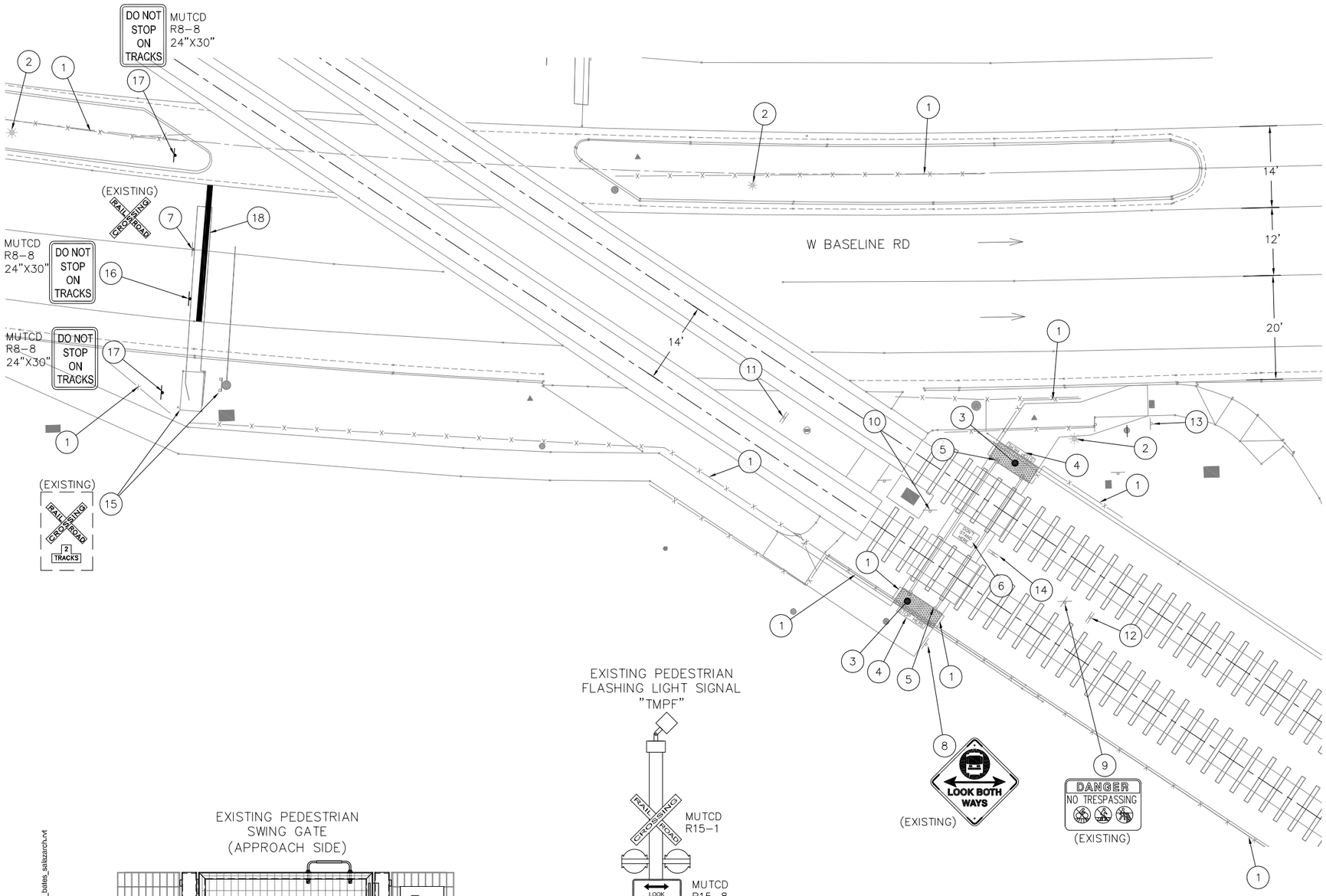
W BASELINE RD RAIL CROSSING EXHIBIT

DRAWN BY:	PK
CHECKED BY:	MTL
DATE CREATED:	07/07/22

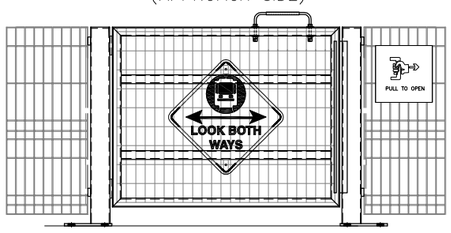
SHEET:

EXHIBIT A1

3/1/2022 1:29:41 PM
C:\Users\Bates\Documents_RevitLocal\22_0225 Elmonica R21_bates_salazarch.rvt

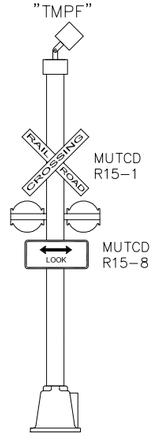


EXISTING PEDESTRIAN SWING GATE (APPROACH SIDE)



DETAIL "A"
NTS

EXISTING PEDESTRIAN FLASHING LIGHT SIGNAL "TMPF"



DETAIL "B"
NTS

ACCOMPANIED BY WASHINGTON COUNTY STANDARD DRAWINGS:
6050, 6051, 6110, AND 6510.

10' 5' 0' 10' 20'
SCALE: 1" = 10'

GENERAL NOTES:

1. MAINTAIN AND PROTECT EXISTING FEATURES UNLESS OTHERWISE NOTED.

NOTES:

1. MAINTAIN AND PROTECT EXISTING CHAIN LINK FENCE.
2. MAINTAIN AND PROTECT EXISTING STREET LIGHT POLE.
3. MAINTAIN AND PROTECT EXISTING PEDESTRIAN TACTILE STRIP.
4. MAINTAIN AND PROTECT EXISTING PEDESTRIAN "STOP HERE" PAVEMENT MARKINGS.
5. MAINTAIN AND PROTECT EXISTING PEDESTRIAN SWING GATE WITH "LOOK BOTH WAYS" SIGN MOUNTED TO GATE. SEE DETAIL "A" ON THIS SHEET.
6. MAINTAIN AND PROTECT EXISTING PEDESTRIAN "DON'T STAND HERE" PAVEMENT MARKINGS.
7. MAINTAIN AND PROTECT EXISTING RAILROAD CROSSING SIGN, MOUNTED ON EXISTING DOUBLE MAST CANTILEVER.
8. MAINTAIN AND PROTECT EXISTING "LOOK BOTH WAYS" SIGN, MOUNTED ON EXISTING SQUARE SIGN POST.
9. MAINTAIN AND PROTECT EXISTING "NO TRESPASSING" SIGN, MOUNTED ON EXISTING SQUARE SIGN POST.
10. MAINTAIN AND PROTECT EXISTING PEDESTRIAN FLASHING LIGHT SIGNAL WITH MUTCD SIGNS (2) R15-1, (2) R15-8. SEE DETAIL "B" ON THIS SHEET.
11. MAINTAIN AND PROTECT EXISTING RAIL MILE MARKER SIGNS, MOUNTED BACK TO BACK ON EXISTING SQUARE SIGN POST.
12. MAINTAIN AND PROTECT EXISTING RAIL SPEED LIMIT SIGNS, MOUNTED BACK TO BACK ON EXISTING SQUARE SIGN POST.
13. MAINTAIN AND PROTECT "BIKE LANE" SIGN R3-17, MOUNTED ON EXISTING SQUARE SIGN POST.
14. MAINTAIN AND PROTECT EXISTING 2 "LOOK BOTH WAYS" SIGNS, MOUNTED BACK TO BACK ON EXISTING SQUARE SIGN POST.
15. MAINTAIN AND PROTECT EXISTING GATE MECH, FLASHING LIGHTS, AND SIGNS.
16. INSTALL "DO NOT STOP ON TRACKS" SIGN, MUTCD SIGN R8-8, MOUNTED ON EXISTING DOUBLE MAST CANTILEVER. INSTALL SIGN APPROX. 6 FT FROM ADJACENT FLASHING LIGHT ASSEMBLY MOUNTED ON CANTILEVER. LOCATION TO BE FIELD VERIFIED BY THE ENGINEER.
17. INSTALL "DO NOT STOP ON TRACKS" SIGN, MUTCD SIGN R8-8, MOUNTED ON NEW SQUARE SIGN POST PER WASHINGTON COUNTY STANDARDS 6050, 6051, AND 6510.
18. INSTALL STOP BAR ON TOP OF EXISTING STOP BAR. STOP BAR SHALL BE 120 mil WHITE THERMOPLASTIC PAVEMENT MARKING MATERIAL. SEE WASHINGTON COUNTY STANDARD 6110.

LEGEND

- CHAIN LINK FENCE
- ROW LINES
- TRACK CENTERLINE
- EXISTING LIGHT POLE AND FIXTURE
- PROPOSED SIGN

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PROJECT NUMBER: 2022

ELMONICA STATION

17030 SW BASELINE ROAD
BEAVERTON, OR 97006

CLIENT:

REACH CDC

GLOBAL Transportation Engineering
227 SW Pine St, Suite 220
Portland, Oregon 97204

REGISTERED PROFESSIONAL ENGINEER 75,113
OREGON
DECEMBER 12, 2012
MONICA TERESA LEAL
EXPIRES: DEC. 31, 2022

PHASE:

SCHEMATIC DESIGN

REVISIONS:

#	DATE	DESCRIPTION

SHEET TITLE:

W BASELINE RD RAIL CROSSING EXHIBIT

DRAWN BY:	PK
CHECKED BY:	MTL
DATE CREATED:	07/07/22

SHEET:

EXHIBIT A2

3/1/2022 1:29:41 PM
C:\Users\Bates\Documents_Revit\Local\22_0225 Elmonica R21_bates_salazarch.rvt