Transportation Impact Analysis

MERCER ISLAND MIXED USE

Prepared for:
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Introduction

This transportation impact analysis (TIA) identifies potential traffic-related impacts associated with the proposed mixed-use development in Mercer Island. As necessary, mitigation measures are identified that would offset or reduce significant impacts.

Project Description

The proposed project is located at 2885 78th Avenue SE, north of SE 29th Street between 77th Avenue SE and 78th Avenue SE in Mercer Island and is shown on Figure 1. The proposed project includes a mixed-use building providing approximately 7,930 square feet of general retail space, 5,417 square feet of restaurant and up to 160 multifamily units. 10 percent of the units would be designated as affordable housing. The residential unit mix would consist of 12 studios, 107 one-bedrooms, 27 two-bedrooms, 12 3-bedrooms, and 2 townhouses. The overview of the proposed site plan is shown in Figure 2. The project would replace approximately 19,136 square feet of various retail and commercial uses. It is anticipated that the proposed development would be completed and occupied in 2022.

Below grade parking is proposed on-site with up to 203 total parking stalls[1]. 160 stalls for the residential use and 43 commercial stalls. The 43 general retail stalls would be located on the P1 floor of the parking structure. A single berth loading area serving the commercial uses, as well as serving as the move-in/move-out loading, would be located along 77th Avenue SE. A shared parking management plan would be implemented to accommodate commercial and parking demand by time of day, more details are provided in the Parking section of the TIA. Vehicular access to the project site would be provided via SE 29th Street. A summary of the parking by floor and access driveway is provided in Table 1.

Table 1. Parking Summary by Level and Use

Parking Level	Public Commercial	Residential	Total Parking
Access from SE 29th Avenue			
P1	43	80	123
P2	0	80	80
Total Parking	**43**	**160**	**203**

Figure 3 and Figure 4 show the preliminary site plan for each parking level that provide access via SE 29th Street.

Study Area and Approach

The study area and approach were reviewed and approved by City staff through a scoping process. The analysis focused on the weekday AM and PM peak periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) when roadway network volumes are typically greatest. Intersections impacted by 10 or more trips were identified as study intersections. Due to the different trip generation in the AM and PM peak periods, this meant that slightly different intersections were studied for each time-period. The study intersections include (see also Figure 1):

1. N Mercer Way/76th Avenue SE (AM Peak Only)
2. N Mercer Way/77th Avenue SE (AM Peak Only)
3. I-90 EB Off-ramp/77th Avenue SE (AM and PM Peak)
4. 77th Avenue SE/SE 27th Street (AM and PM Peak)

[1] One loading area would be provided in addition to the 203 stalls outside the parking structure.

5. Island Crest Way/SE 27th Street (AM and PM Peak)
6. SE 28th Street/78th Avenue SE (AM and PM Peak)
7. SE 28th Street/80th Avenue SE (AM and PM Peak)
8. SE 28th Street/Island Crest Way (AM and PM Peak)
9. SE 29th Street/77th Avenue SE (AM and PM Peak)
10. SE 29th Street/78th Avenue SE (AM and PM Peak)
11. Island Crest Way/SE 40th Street (AM and PM Peak)
12. Project Driveway/SE 29th Street (AM and PM Peak)

The TIA includes a review of the background conditions in the site vicinity including the roadway network, existing and future (2022) weekday PM peak hour traffic volumes, traffic operations, traffic safety, non-motorized facilities, and transit. Future conditions, which assumed the proposed project is constructed and occupied were evaluated by adding site-generated traffic to future baseline traffic volumes. Analysis of future conditions addresses cumulative impacts of the proposed project and traffic growth in the study area. Site-generated impacts are identified based on differences in transportation conditions between future with and without project conditions.

Site Vicinity and Study Intersections

Mercer Island Residential

Figure 1

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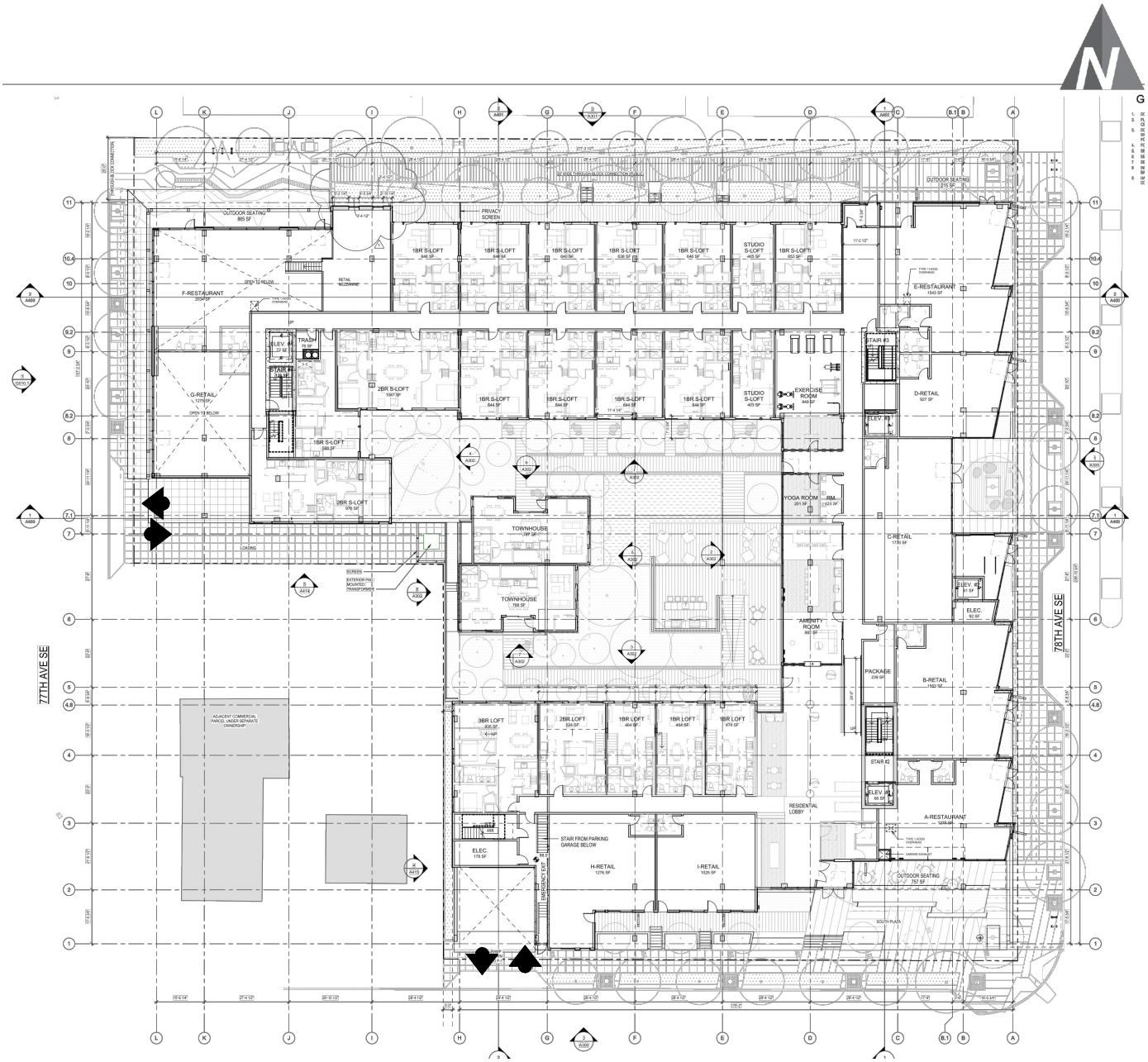

Preliminary Site Plan

Mercer Island Residential

FIGURE
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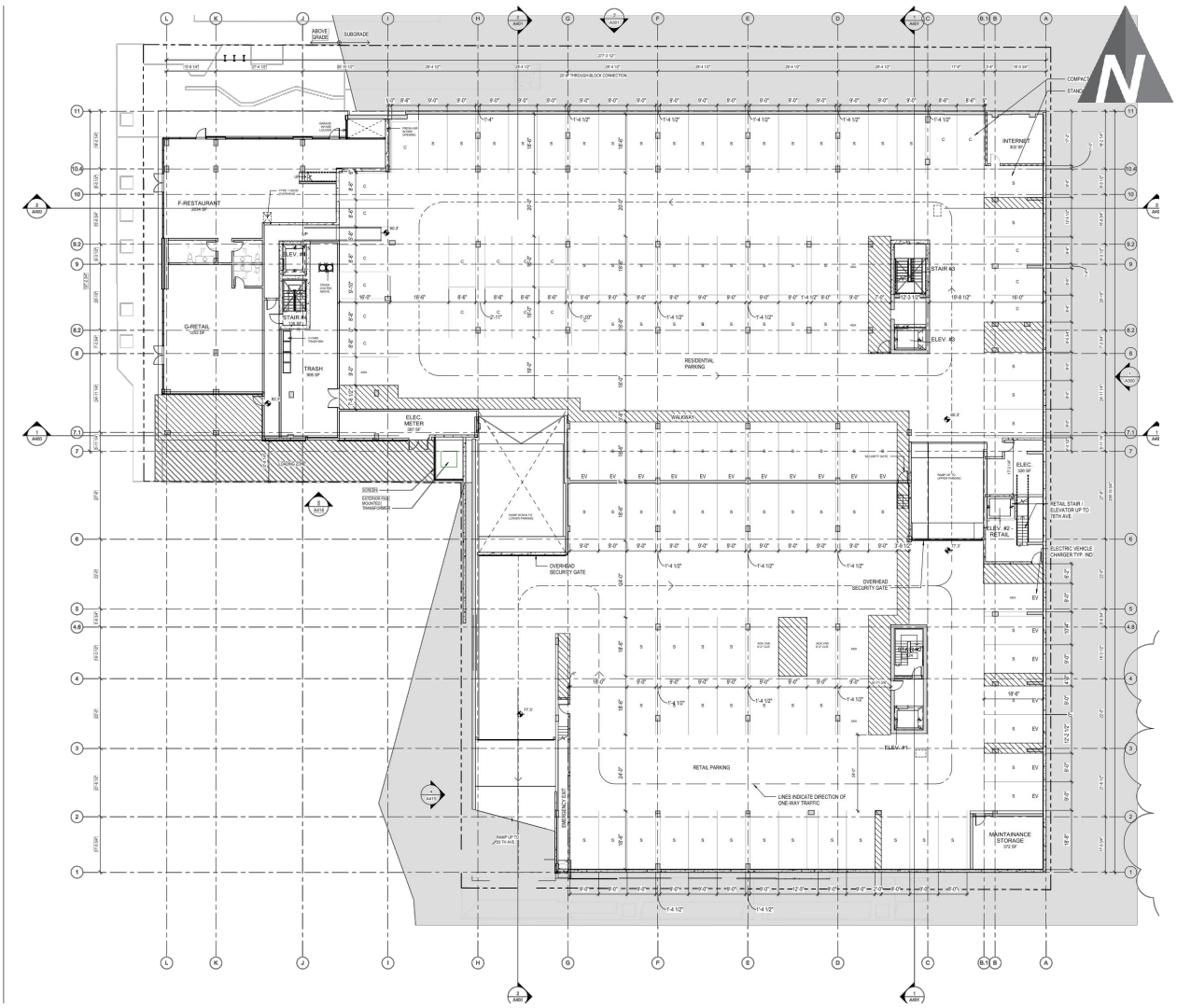

Preliminary Site Plan (Level P1)

Mercer Island Mixed Use

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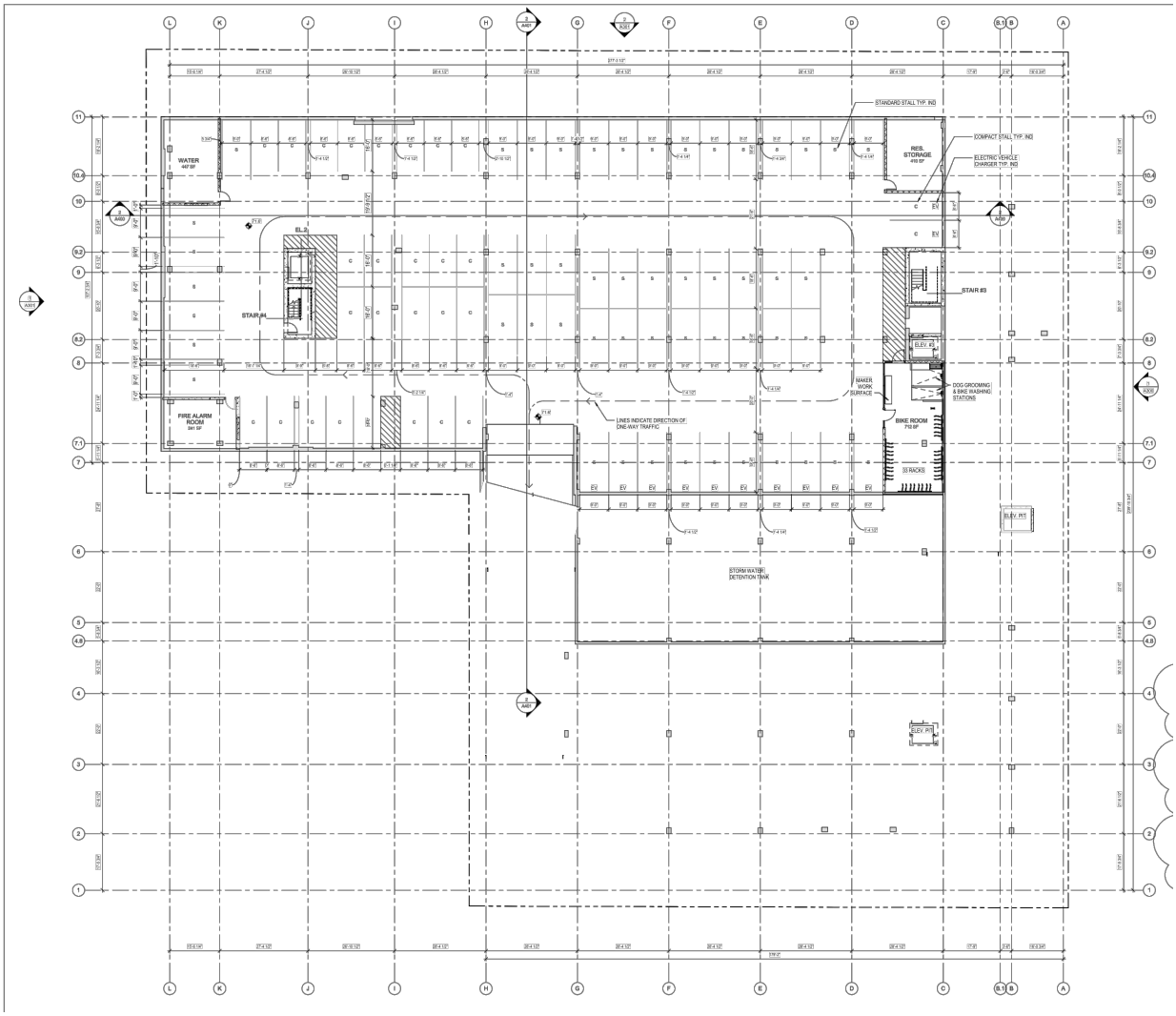

Preliminary Site Plan (Level P2)

Mercer Island Mixed Use

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Existing & Future Without-Project Conditions

This section describes existing and future conditions within the identified study area without construction of the project. Characteristics are provided for the roadway network, planned roadway improvements, non-motorized facilities, transit service, existing and future without-project traffic volumes, traffic operations, and traffic safety.

Roadway Network

The existing roadway characteristics in the proposed project vicinity are summarized in Table 2.

Table 2. Study Area Existing Roadway Network Summary

Roadway	Arterial Classification	Posted Speed Limit	Number of Travel Lanes	Parking?	Sidewalks?
N Mercer Way	Collector Arterial	25 mph	3	No	Yes
76th Avenue SE	Collector Arterial	25 mph	3	No	Yes
77th Avenue SE	Secondary Arterial	25 mph	3	No	Yes
78th Avenue SE	Collector Arterial	25 mph	2	Yes	Yes
80th Avenue SE	Secondary Arterial	25 mph	2	Yes	Yes
SE 27th Street	Secondary Arterial	25 mph	3	No	Yes
SE 28th Street	Collector Arterial	25 mph	2	Yes	Yes
SE 29th Street	Collector Arterial	25 mph	2	Yes	Yes
SE 40th Street	Secondary Arterial	30 mph	2	No	Yes
Island Crest Way	Primary Arterial	35 mph	4	No	Yes

Planned Roadway Improvements

Based on a review of the City's 2021-2026 Six-Year Transportation Improvement Program (TIP) there is one planned improvement along 77th Avenue between SE 32nd Street and North Mercer Way that would modify channelization in relation to on-street parking and shared bike sharrows. This project is expected to begin in 2026.

Non-Motorized Facilities

The project site is easily accessed by pedestrians and bicyclists. Pedestrian facilities consist primarily of sidewalks along both sides of 77th Avenue SE, 78th Avenue SE, and SE 29th Street near the project site. Crosswalks are located on most legs of both signalized and unsignalized intersections within the vicinity of the project from SE 27th Street to SE 29th Street and from 77th Avenue SE and Island Crest Way.

In addition to these dedicated pedestrian facilities, shared use paths accommodating both bicycle and pedestrian travel are parallel to and across I-90. Within the vicinity of the project site, bicycle lanes are provided along both sides of 77th Avenue SE between SE 27th Street and SE 32nd Street.

Transit Service

King County Metro Transit (Metro) provides transit service in the study area. The site is well served by transit and the nearest bus stop is located on 78th Avenue SE at SE 28th Street, located east of the site. Metro Transit Routes 201 and 204 serve this bus stop. Also, the Mercer Island Park-and-Ride and transit center is located approximately 1/3 mile north of the site and a bus stop along Island Crest Way at SE 32nd Street approximately 0.4 miles away.

Several routes serve the proposed site, including Routes 201 and 204. Additional detail for Routes 201 and 204 that operate nearest the project site are provided below.

Route 201 provides on-island service on weekdays during the AM peak hour with 40-minute headways. This route provides northbound service from the South Mercer Island Village Center to Island Crest Way and the Park-and-Ride. The nearest stop to the project site is located along 78th Avenue SE at SE 28th Street.

Route 204 provides on-island service on weekdays with 30-minute headways during the AM and PM peaks. This route provides southbound service from the Mercer Island Park-and-Ride to Island Crest Way and the South Mercer Island Village Center. The nearest stop to the project site is located along 78th Avenue SE at SE 28th Street.

Route 630 provides on-island community shuttle during weekday AM and PM peaks with 30-minute headways. This route provides service from the Mercer Island Park-and-Ride to Downtown Seattle. The nearest stop to the project site is located along Island Crest Way at SE 32nd Street.

In addition to bus service, Sound Transit plans to construct East Link light rail that will stop approximately ¼ mile north of the project site on I-90. Pedestrian access to the light rail station will be provided from 77th Avenue SE and 80th Avenue SE. East Link light rail service is anticipated to begin in 2023.

Traffic Volumes

The following sections summarize the traffic volumes for existing and future without-project conditions.

Existing Traffic Volumes

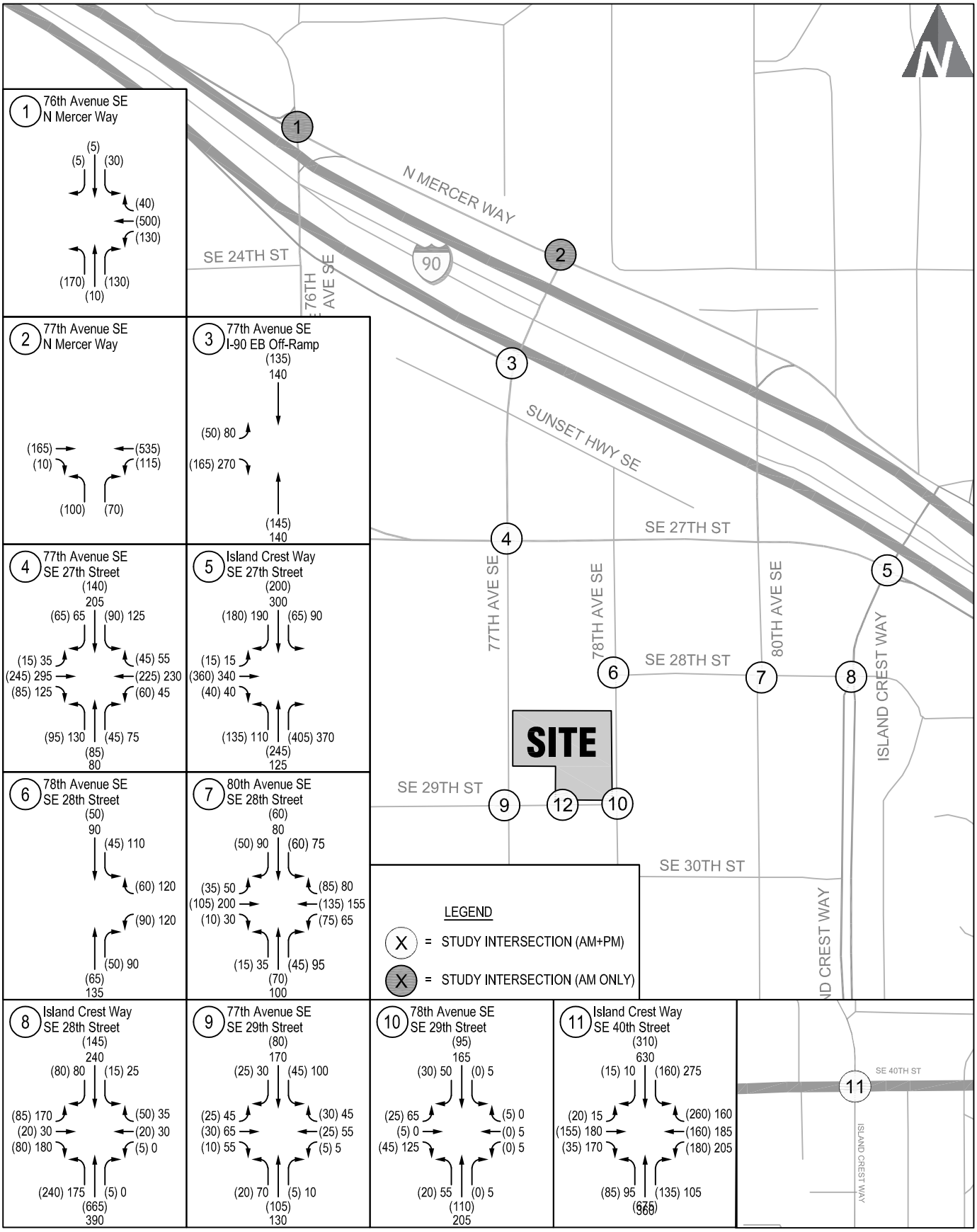
Existing weekday AM and PM peak hour traffic counts were based on traffic counts collected March 2017 and 2018[2]. The 2017 and 2018 counts were grown to existing 2020 conditions by applying an annual 1.5 percent growth rate as coordinated with City staff. Figure 5 illustrates the existing weekday AM and PM peak hour traffic volumes at the study intersections, rounded to the nearest 5 vehicles to account for daily fluctuations in traffic. Detailed traffic volumes are provided in Appendix A.

Future Without-Project Traffic Volumes

Future (2022) without-project traffic volumes were forecasted by applying an annual growth rate to existing traffic volumes and adding traffic from “pipeline” development projects that would also contribute traffic to study intersections. An annual growth rate of 1.5 percent per year was applied to the existing AM and PM peak hour traffic volumes at each study intersection. Based on coordination with city staff, there were no pipeline development projects that would impact study intersections.

Figure 6 illustrates the resulting 2022 without-project AM and PM peak hour traffic volumes at the study intersections.

[2] New traffic counts are not currently feasible due to abnormal traffic conditions due to the 2020 coronavirus outbreak and associated Washington State Governor’s executive order and Public Health recommendations. Therefore, existing traffic volumes are based on previously collected traffic counts from 2017/2018 in the vicinity of the project.



Existing (2020) Weekday AM & PM Peak Hour Traffic Volumes

FIGURE 5

Mercer Island Mixed Use

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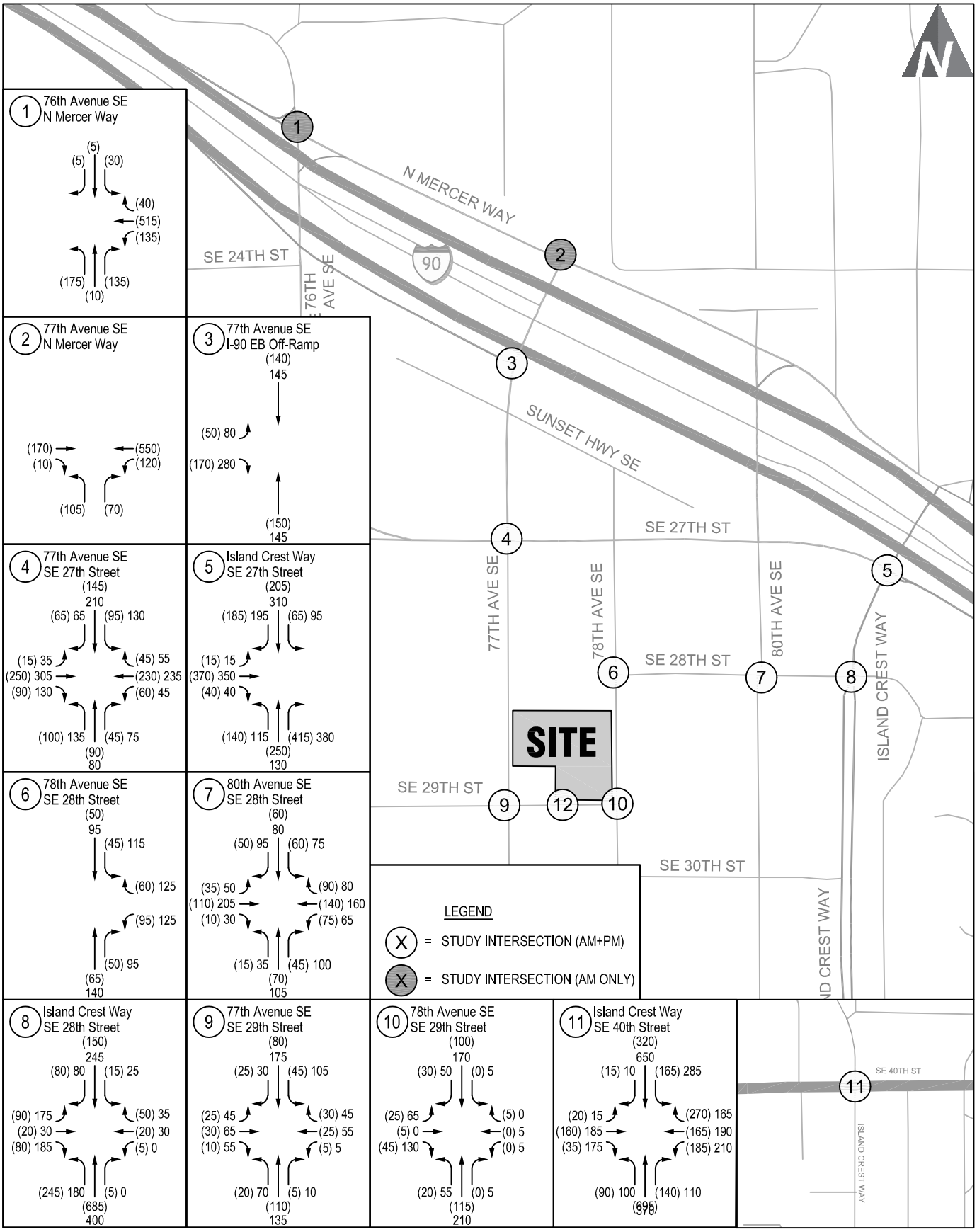

Future (2022) Without-Project Weekday AM and PM Peak Hour Traffic Volumes

FIGURE 6

Mercer Island Mixed Use

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Traffic Operations

The operational characteristics of an intersection are evaluated by determining the intersection's level of service (LOS). The intersection as a whole, and its individual turning movements, can be described alphabetically with a range of levels of service (LOS A to F). LOS A indicates free-flow traffic and LOS F indicates extreme congestion and long vehicle delays. LOS is measured in average control delay per vehicle and is typically reported for the intersection as a whole at signalized and all-way stop intersections. Control delay is defined as the combination of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At two-way stop-controlled intersections, LOS is measured in average stopped delay per vehicle for the worst movement of the intersection. A more detailed explanation of LOS is provided in Appendix B.

Existing and future without-project LOS and delays were calculated at study intersections based on the methodologies contained in the *Highway Capacity Manual* (HCM, 6th Edition). The software program Synchro 10 was used to evaluate intersection operations using HCM methodologies. The HCM methodology takes into consideration intersection characteristics including peak hour traffic volumes, peak hour factor, heavy vehicles, traffic control and lane configuration. The following describes the analysis assumptions related to the key traffic operations inputs:

- **Traffic Volumes:** The previous section discusses the intersection traffic volumes.
- **Signal Timing:** Existing weekday AM and PM peak hour signal timing and Synchro networks for the study intersections was obtained from the City of Mercer Island. For the future 2022 analysis, signal timing was assumed to remain the same as existing conditions. This provides a conservative estimate of future operations given that agency staff periodically adjust timing settings.
- **Peak Hour Factors**: The peak hour factor (PHF) assumed for the analysis is based on the existing intersection traffic counts. PHF is a measure of traffic demand fluctuation within the peak hour and a single value was the intersection as a whole.
- **Heavy Vehicles**: The traffic counts for the study intersections included a count of heavy vehicles (vehicles with more than four tires on the roadway surface). Heavy vehicles can impact intersection operations; therefore, the analysis includes the percent of heavy vehicles on each approach as indicated by the traffic counts.

Table 3 and Table 4 shows the results of the weekday AM and PM peak hour level of service calculations for existing and without project conditions. Detailed intersection levels of service worksheets are contained in Appendix C. The City of Mercer Island has an adopted standard of LOS C at intersections of two arterial streets within and adjacent to the Town Center and LOS D elsewhere. The WSDOT has set a LOS D standard for the I-90 ramps.

Table 3. Existing Weekday AM/PM Peak Hour Intersection Level of Service

Intersection	Traffic Control	AM			PM		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. 76th Ave SE / N Mercer Way	Signal	A	8	-	AM Analysis Only		
2. 77th Ave SE / N Mercer Way	Signal	A	6	-	AM Analysis Only		
3. 77th Ave SE / I-90 EB Off-Ramp	Side-Street Stop	B	11	EB	B	11	EB
4. 77th Ave SE / SE 27th St	Signal	B	13	-	B	15	-
5. Island Crest Way / SE 27th St / I-90 On-Ramp	Signal	B	14	-	B	13	-
6. 78th Ave SE / SE 28th St	All-Way Stop	A	9	-	A	10	-
7. 80th Ave SE / SE 28th St	All-Way Stop	B	10	-	B	14	-
8. Island Crest Way / SE 28th St	Signal	B	14	-	B	17	-
9. 77th Ave SE / SE 29th St	All-Way Stop	A	9	-	B	10	-
10. 78th Ave SE / SE 29th St	Side-Street Stop	B	10	EB	B	14	EB
11. Island Crest Way / SE 40th St	Signal	D	45	-	C	25	-

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (HCM 6th Ed), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. Worst movement reported for unsignalized intersections.

Table 4. Future Without-Project Weekday AM/PM Peak Hour Intersection Level of Service

Intersection	Traffic Control	AM			PM		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. 76th Ave SE / N Mercer Way	Signal	A	8	-	AM Analysis Only		
2. 77th Ave SE / N Mercer Way	Signal	A	6	-	AM Analysis Only		
3. 77th Ave SE / I-90 EB Off-Ramp	Side-Street Stop	B	11	EB	B	11	EB
4. 77th Ave SE / SE 27th St	Signal	B	13	-	B	15	-
5. Island Crest Way / SE 27th St / I-90 On-Ramp	Signal	B	13	-	B	14	-
6. 78th Ave SE / SE 28th St	All-Way Stop	A	9	-	A	10	-
7. 80th Ave SE / SE 28th St	All-Way Stop	B	10	-	B	14	-
8. Island Crest Way / SE 28th St	Signal	B	15	-	B	17	-
9. 77th Ave SE / SE 29th St	All-Way Stop	A	9	-	B	10	-
10. 78th Ave SE / SE 29th St	Side-Street Stop	B	10	EB	B	14	EB
11. Island Crest Way / SE 40th St	Signal	D	46	-	C	26	-

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (HCM 6th Ed), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. Worst movement reported for unsignalized intersections.

As shown in Table 3, all study intersections currently operate at LOS D or better and meet the City's and WSDOT's LOS standards.

As shown in Table 4, under the future 2022 without-project conditions all study intersections are forecast to continue to meet the adopted LOS standards. Overall, the experience of driving in and around the Mercer Island Town Center in the future is expected to be similar to current conditions with no significant increases in delay.

Traffic Safety

Records of reported accidents at study intersections were reviewed to help identify potential safety concerns. The most recent three-year summary of accident data provided by the WSDOT is for the period between January 1, 2017 and December 31, 2019. A historical review of the frequency of accidents was conducted at all study intersections. A summary of the total and average annual number of reported accidents at each study intersection is provided in Table 5.

Table 5. Study Area Collision Data Summary

Intersection	Year			Total	Annual Average	Collisions per MEV[1]
	2017	2018	2019			
1. 76th Ave SE / N Mercer Way	0	3	0	3	1.0	0.27
2. 77th Ave SE / N Mercer Way	1	2	2	5	1.7	0.46
3. 77th Ave SE / I-90 EB Off-Ramp	1	1	0	2	0.7	0.29
4. 77th Ave SE / SE 27th St	4	1	0	5	1.7	0.31
5. Island Crest Way / SE 27th St / I-90 On-Ramp	6	4	3	13	4.3	0.75
6. 78th Ave SE / SE 28th St	0	1	0	1	0.3	0.14
7. 80th Ave SE / SE 28th St	0	0	1	1	0.3	0.09
8. Island Crest Way / SE 28th St	3	0	0	3	1.0	0.20
9. 77th Ave SE / SE 29th St	0	0	1	1	0.3	0.12
10. 78th Ave SE / SE 29th St	1	1	0	2	0.7	0.27
11. Island Crest Way / SE 40th St	5	0	2	7	2.3	0.27

1. MEV = Million entering vehicles.

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Overall, there were 13 or fewer total collisions in the last three years at each intersection. Approach turn and angle collisions were the most common collision types. 20 of the 43 total collisions resulted in injury. An intersection with a collision rate greater than 1.00 collisions per million entering vehicles (MEV) typically indicates that further investigation is necessary to determine whether an adverse condition exists. As shown, no intersection has a collision rate above 1.00 collisions per MEV within the study area. None of the reported collisions during the three-year period resulted in a fatality. There were 4 reported pedestrian collisions and 2 reported bicyclist collisions. The pedestrian collisions occurred at N Mercer Way/77th Avenue SE, 77th Avenue SE/SE 27th Street and Island Crest Way/SE 27th Street intersections. The bicyclist collisions occurred at N Mercer Way/76th Avenue SE and N Mercer Way/77th Avenue SE intersections.

Traffic generated by the proposed development would likely result in a proportionate increase in the probability of traffic accidents. It is unlikely, however, that this traffic would create a safety hazard or significantly increase the number of reported accidents at the locations within the project vicinity, based on the minimal increase in overall traffic volumes and the impacts to intersection operations.

Project Impacts

This section of the report documents potential impacts generated by the proposed project on the surrounding street network and at study intersections. First, estimated net new traffic volumes generated by the proposed site are estimated, and then distributed and assigned to adjacent streets and intersections within the study area. Next, project trips are added to future without-project traffic volumes and forecast impacts to traffic operations, safety, non-motorized facilities, and transit are identified. Site specific items are also discussed such as the operation of the site's access driveway, loading activity, and estimated on-site parking demand of the proposed project's land uses.

Trip Generation

This section describes the estimated new vehicular trips that would be added to the local street system as a result of the project. Since the site is currently developed, trips associated with the current use of the site were observed and then subtracted from the future development trip generation to arrive at an estimate of net new traffic.

Existing Site

The proposed project would redevelop the existing uses north of SE 29th Street and between 77th Avenue SE and 78th Avenue SE. The existing buildings total approximately 19,136 square-feet with a mix of commercial uses including a pet store, a restaurant, and other small retail shops. The church on the southwest corner of the site would remain. Traffic counts were collected at the existing site access driveways in November 2018 to identify the trip generation and travel patterns of the existing uses. The data shows that the current uses generate approximately gross 19 trips during the weekday AM peak hour and approximately gross 65 trips during the weekday PM peak hour. A detailed summary of the existing counts is provided in Appendix A, along with the detailed traffic count worksheets.

Proposed Project

The proposed project includes 7,930 square feet of retail, 5,417 square feet of restaurant, and up to 160 apartments units. Weekday AM and PM peak hour trip generation for the proposed development was estimated based on the land use size and trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation,* 10th Edition for Shopping Center (LU #820), High-Turnover (Sit-Down) Restaurant (LU #932) and Mid-Rise Multifamily Housing (LU #221). The trip generation was adjusted for pass-by and internal trips to account for the localized nature of the commercial uses. Pass-by trips reflect traffic already on streets in the vicinity of the project site that would visit the commercial component of the project. Based on ITE *Trip Generation Handbook (2017* 3rd Edition), a 34 percent pass-by adjustment was made for the retail uses during the PM peak period and a 43 percent pass-by adjustment was made for the restaurant uses. Internal trips were calculated based on the method presented in the *Trip Generation Handbook.*

To calculate the anticipated net new project generated traffic and account for existing site traffic, the trip generation was adjusted for traffic generated by the existing on-site uses. The result is the weekday net new off-site vehicle trips generated by the proposed project shown in Table 6 below. Detailed trip generation calculations are provided in Appendix D.

Table 6. Estimated Weekday Project Trip Generation

Land Use	Size	Trip Rate[1]	Unadjusted Trips	Internal Trips[2]	Pass-by Trips[3]	Total Trips		
						Total	In	Out
AM Peak Hour								
Proposed								
Shopping Center (#820)	7,930 sf	0.94	7	0	0	7	4	3
High-Turnover (Sit-Down) Restaurant (#932)	5,417 sf	9.94	54	7	0	47	24	23
Mid-Rise Multifamily Housing (#221)	160 DU	0.36	58	7	0	51	14	37
Sub-total			*119*	*14*	*0*	*105*	*42*	*63*
Existing[4]								
Various Uses	19,136 sf	-	19	-	0	19	10	9
Net New Trips			**100**	**14**	**0**	**86**	**32**	**54**
PM Peak Hour								
Proposed								
Shopping Center (#820)	7,930 sf	EQN	83	33	18	32	19	13
High-Turnover (Sit-Down) Restaurant (#932)	5,417 sf	EQN	53	27	12	14	12	2
Mid-Rise Multifamily Housing (#221)	160 DU	0.44	70	24	0	46	28	18
Sub-total			*206*	*84*	*30*	*92*	*59*	*33*
Existing[4]								
Various Uses	19,136 sf	-	97	-	32	65	33	32
Net New Trips			**109**	**84**	**-2**	**27**	**26**	**1**

Notes: sf = square-feet, du = dwelling units
1. Average trip rates & regression equation from ITE Trip Generation Manual, 10th Edition (2017). Rate or equation used consistent with ITE Trip Generation Handbook, 3rd Edition (2017) methodologies.
2. Internal Capture methodology consistent with ITE Trip Generation Handbook, 3rd Edition (2017)).
3. Pass-by rates based on ITE Trip Generation Handbook, 3rd Edition (2017).
4. Existing trips based on counts collected on November 2018.

Table 6 summarizes the resulting weekday AM and PM peak hour trip generation estimated for the proposed project. As shown, the project would generate approximately 105 weekday AM peak hour trips; however, subtracting trips from the current site results in 86 net new vehicle trips. Similarly, the project would generate approximately 92 weekday PM peak hour trips; however, subtracting trips from the current site results in 27 net new vehicle trips during the PM peak hour.

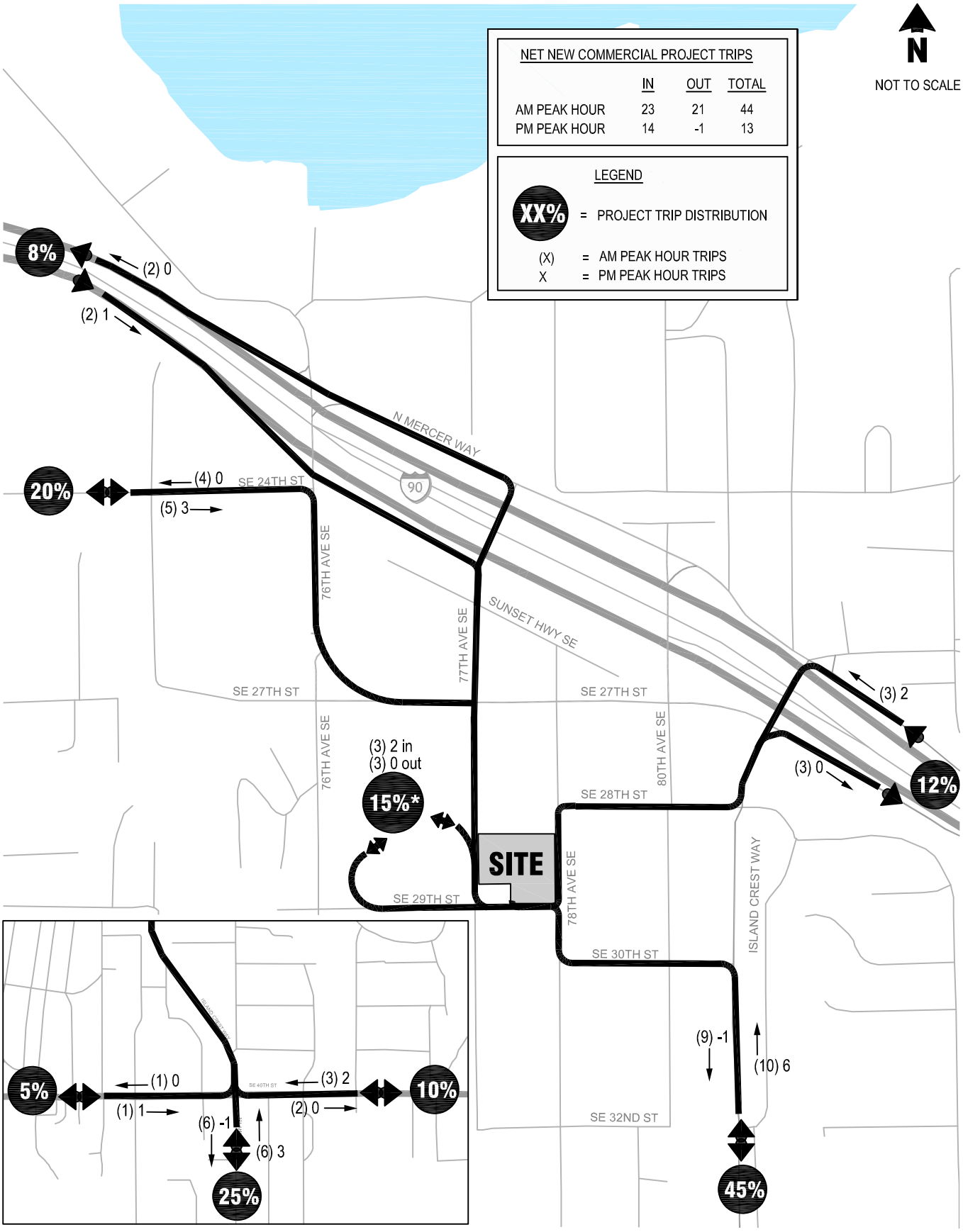
Trip Distribution and Assignment

Vehicular trip distribution for this project is based on existing travel patterns in the site vicinity and coordination with the City's on-call consultant (KPG). Existing I-90 ramp counts were collected in November 2018 to determine the distribution to/from Bellevue and Seattle. The project trip distribution is provided in Figure 7 and Figure 8. The residential and commercial trip distribution is summarized below:

- Residential: 80 percent of trips would be headed off-island (50 percent to/from Bellevue and 30 percent to/from Seattle) and the remaining 20 percent would be local within Mercer Island.

- Commercial: 80 percent of trips assumed local within Mercer Island and 20 percent headed off-island (12 percent to/from Bellevue and 8 percent to/from Seattle)

Net new project trips for both residential and commercial uses were assigned throughout the network based on these general travel patterns. Total trips (Gross trips less internal trips) were assigned to the driveway.



*Denotes 15% of commercials trips would be to/from the general Mercer Island Town Center Area.

Commercial Trip Distribution and Assignment (AM and PM Peak Hour)

Figure 7

Mercer Island Residential

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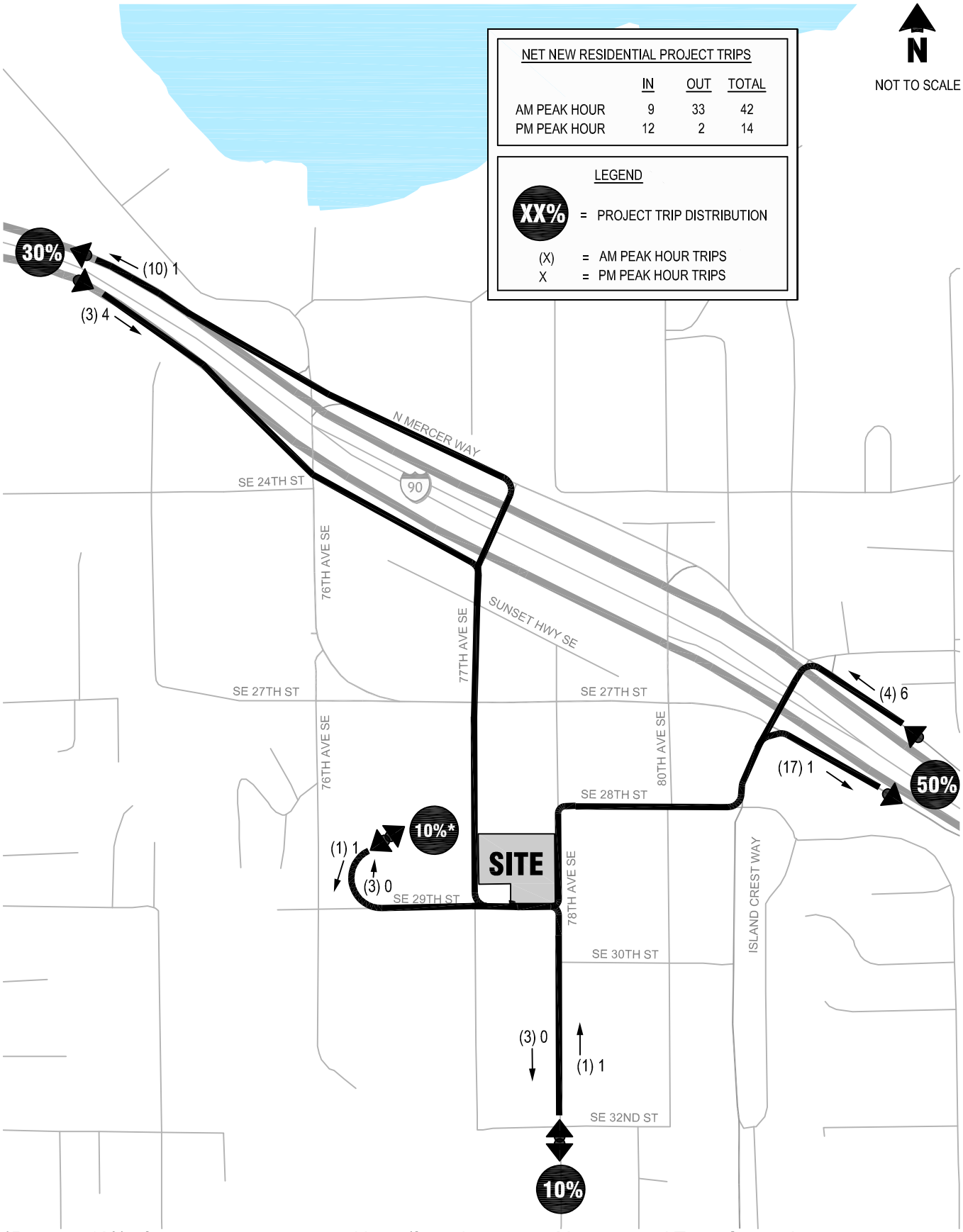

*Denotes 10% of commercials trips would be to/from the general Mercer Island Town Center Area.

Residential Trip Distribution and Assignment (AM and PM Peak Hour)

Figure 8

Mercer Island Mixed Use

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Traffic Volumes

Site-generated weekday AM and PM peak hour traffic volumes assigned to the roadway network were added to the future without-project traffic volumes at the off-site study intersections. The resulting future (2022) with-project peak hour traffic volumes are illustrated in Figure 9. Table 7 and Table 8 summarize the anticipated increase in total entering traffic at the study intersections in the AM and PM peak hours, as well, the percent of future with-project traffic volumes attributable to the proposed project.

Table 7. Weekday AM Peak Hour Project Traffic Volumes Impacts

Intersection	Net New Project Trips	2022 Future With-Project	Percent Attributable to Project
1. 76th Ave SE / N Mercer Way	12	1,062	1.1%
2. 77th Ave SE / N Mercer Way	12	1,037	1.2%
3. 77th Ave SE / I-90 EB Off-Ramp	17	527	3.2%
4. 77th Ave SE / SE 27th St	26	1,256	2.1%
5. Island Crest Way / SE 27th St / I-90 On-Ramp	27	1,712	1.6%
6. 78th Ave SE / SE 28th St	27	392	6.9%
7. 80th Ave SE / SE 28th St	27	787	3.4%
8. Island Crest Way / SE 28th St	27	1,462	1.8%
9. 77th Ave SE / SE 29th St	36	446	8.1%
10. 78th Ave SE / SE 29th St	50	395	12.7%
11. Island Crest Way / SE 40th St	22	2,282	1.0%
12. Site Driveway / SE 29th St	105	230	45.7%

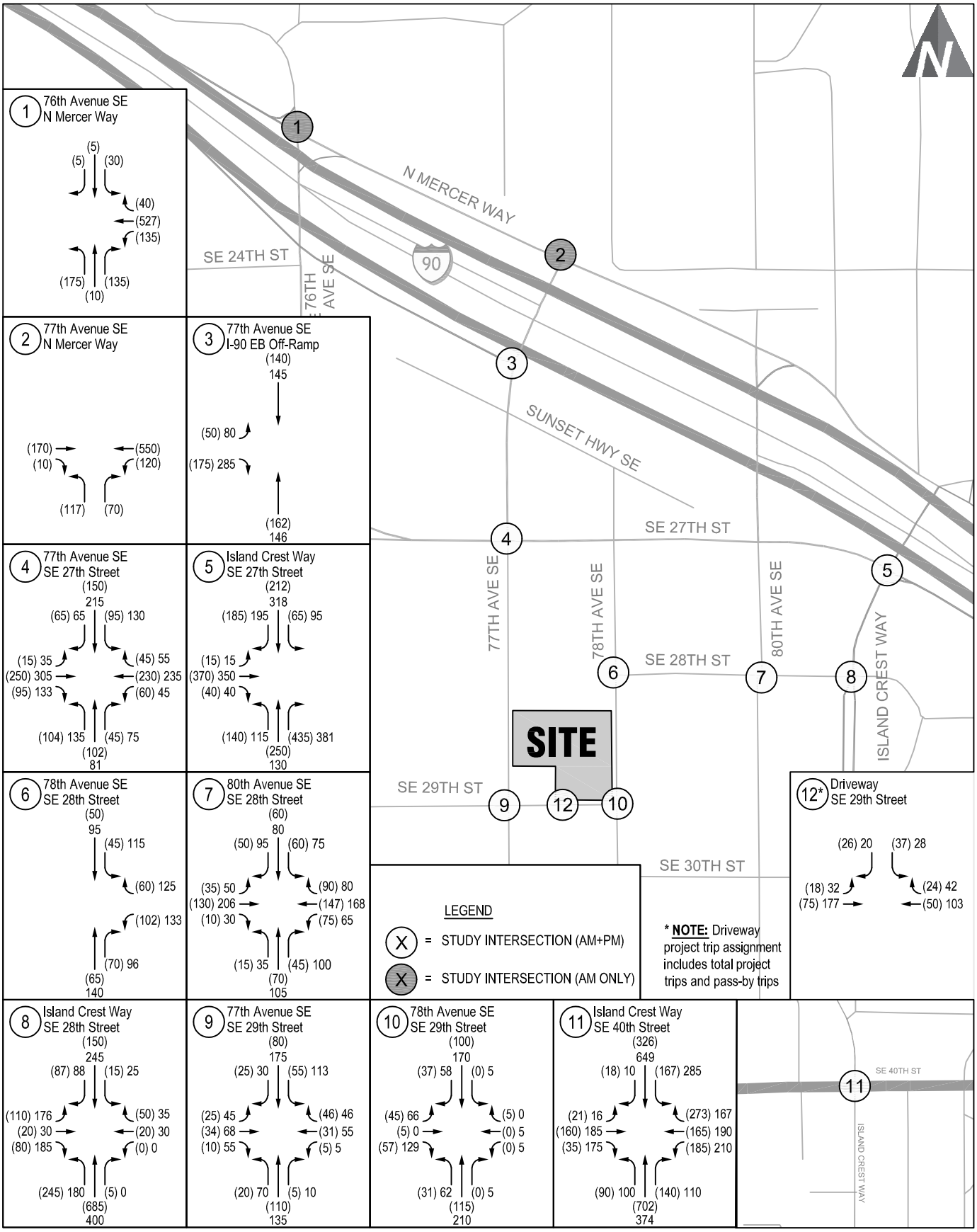
Source: Transpo Group, 2020.
1. Total number of vehicles entering the intersection.

Table 8. Weekday PM Peak Hour Project Traffic Volumes Impacts

Intersection	Net New Project Trips	2022 Future With-Project	Percent Attributable to Project
1. 76th Ave SE / N Mercer Way		AM Analysis Only	
2. 77th Ave SE / N Mercer Way		AM Analysis Only	
3. 77th Ave SE / I-90 EB Off-Ramp	6	656	0.9%
4. 77th Ave SE / SE 27th St	9	1,509	0.6%
5. Island Crest Way / SE 27th St / I-90 On-Ramp	9	1,639	0.6%
6. 78th Ave SE / SE 28th St	9	704	1.3%
7. 80th Ave SE / SE 28th St	9	1,089	0.8%
8. Island Crest Way / SE 28th St	9	1,394	0.6%
9. 77th Ave SE / SE 29th St	12	807	1.5%
10. 78th Ave SE / SE 29th St	15	715	2.1%
11. Island Crest Way / SE 40th St	6	2,471	0.2%
12. Site Driveway / SE 29th St	107	402	36.3%

Source: Transpo Group, 2020.
1. Total number of vehicles entering the intersection.

Table 7 and Table 8 shows that the addition of project traffic to the background traffic volumes results in typical volume variation of less than 13 percent, except at the site access. Greater proportional growth is forecast where lesser background volumes are shown, specifically near/adjacent to the project site (study intersections #9, #10 and #12).



Future (2022) With-Project Weekday AM and PM Peak Hour Traffic Volumes

FIGURE 9

Mercer Island Mixed Use

transpogroup

Sep 03, 2020 - 1:03pm nickg M:\18\1.18352.00 - Mercer Island Residential\Graphics\DWG\18352_graphics.dwg Layout: W-Proj Vol

Traffic Operations

Intersection operations analyses were conducted in the study area to evaluate the future 2022 conditions with the proposed project. Intersection LOS was calculated using the methodology described previously. The signal timing parameters used in the 2022 without-project analyses were held constant for the with-project analysis. For comparison purposes, the calculated intersection operations for the 2022 without-project scenario are shown with the 2022 with-project conditions in Table 9 and Table 10. LOS worksheets for the analysis are included in Appendix C.

Table 9. Future Without-Project Weekday AM Peak Hour Intersection Level of Service

Intersection	Traffic Control	2022 AM Without-Project			2022 AM With-Project		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. 76th Ave SE / N Mercer Way	Signal	A	8	-	A	9	-
2. 77th Ave SE / N Mercer Way	Signal	A	6	-	A	6	-
3. 77th Ave SE / I-90 EB Off-Ramp	Side-Street Stop	B	11	EB	B	11	EB
4. 77th Ave SE / SE 27th St	Signal	B	13	-	B	13	-
5. Island Crest Way / SE 27th St / I-90 On-Ramp	Signal	B	13	-	B	13	-
6. 78th Ave SE / SE 28th St	All-Way Stop	A	9	-	A	9	-
7. 80th Ave SE / SE 28th St	All-Way Stop	B	10	-	B	11	-
8. Island Crest Way / SE 28th St	Signal	B	15	-	B	15	-
9. 77th Ave SE / SE 29th St	All-Way Stop	A	9	-	A	9	-
10. 78th Ave SE / SE 29th St	Side-Street Stop	B	10	EB	B	11	EB
11. Island Crest Way / SE 40th St	Signal	D	46	-	D	46	-

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (HCM 6th Ed), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. Worst movement reported for unsignalized intersections.

Table 10. Future With-Project Weekday PM Peak Hour Intersection Level of Service

Intersection	Traffic Control	2022 PM Without-Project			2022 PM With-Project		
		LOS[1]	Delay[2]	WM[3]	LOS	Delay	WM
1. 76th Ave SE / N Mercer Way	Signal	AM Analysis Only			AM Analysis Only		
2. 77th Ave SE / N Mercer Way	Signal	AM Analysis Only			AM Analysis Only		
3. 77th Ave SE / I-90 EB Off-Ramp	Side-Street Stop	B	11	EB	B	12	EB
4. 77th Ave SE / SE 27th St	Signal	B	15	-	B	15	-
5. Island Crest Way / SE 27th St / I-90 On-Ramp	Signal	B	14	-	B	14	-
6. 78th Ave SE / SE 28th St	All-Way Stop	A	10	-	B	10	-
7. 80th Ave SE / SE 28th St	All-Way Stop	B	14	-	B	14	-
8. Island Crest Way / SE 28th St	Signal	B	17	-	B	18	-
9. 77th Ave SE / SE 29th St	All-Way Stop	B	10	-	B	11	-
10. 78th Ave SE / SE 29th St	Side-Street Stop	B	14	EB	B	14	EB
11. Island Crest Way / SE 40th St	Signal	C	26	-	C	26	-

1. Level of Service (A – F) as defined by the *Highway Capacity Manual* (HCM 6th Ed), Transportation Research Board.
2. Average delay per vehicle in seconds.
3. Worst movement reported for unsignalized intersections.

Based on the analysis summarized in Table 9 and Table 10, all intersections are forecast to continue meeting the adopted LOS standards. No significant impact to traffic operations would occur due to the project.

Site Access Evaluation

The site access driveway is located along SE 29th Street. As previously discussed, the site access provides access to both the commercial and residential parking. The parking is summarized by level and use in Table 1 that is repeated below from the project description section.

Table 1. (Repeated) Parking Summary by Level and Use

Parking Level	Public Commercial	Residential[1]	Total Parking
Access from SE 29th Avenue			
P1	43	80	123
P2	0	80	80
Total Parking	**43**	**160**	**203**

Driveway Operations

At the driveway, one inbound and one outbound travel lane are proposed. Existing traffic volumes along SE 29th Street were grown at an annual rate of 1.5 percent per year to 2022 conditions.

LOS at the site driveway was calculated using the methodology described previously for all other study intersections. The analysis assumes a single outbound lane. Traffic operation results for 2022 with-project conditions at the site access driveways are summarized in Table 11.

Table 11. 2022 Site Access Weekday Peak Hour Level of Service

Location	LOS[1]	Delay[2]	WM[3]
AM Peak Hour: Driveway / SE 29th Street	A	10	SB
PM Peak Hour: Driveway / SE 29th Street	B	11	SB

1. Level of service (LOS), based on Highway Capacity Manual 6th Edition methodology.
2. Average delay in seconds per vehicle.
3. Worst movement (WM) reported for side street stop-controlled intersections. EB = eastbound approach, WB = eastbound approach.

As shown in Table 11, both site access driveways are anticipated to operate at LOS B or better.

Sight Distance

Sight distance was calculated in accordance with AASHTO's *A Policy on Geometric Design of Highways and Streets*, 2011. Figure 10 shows the entering sight triangles that should be maintained to ensure clear sight lines to and from the two driveways. As shown in the figure, AASHTO recommends 335 feet of clearance for a 25-mph design speed or to the adjacent intersection. In this case, sight distance both to the east and west are measured to the all-way stop intersection to the west and the side-street stop intersection to the east. Stopping sight distance recommendations for a design speed of 25 mph is 155 feet and is met along both SE 29th Street as both roads are flat and straight. This is displayed in Figure 11.

Entering Sight Distance

Mercer Island Residential

FIGURE
10

transpogroup

Stopping Sight Distance

Mercer Island Residential

FIGURE
11

transpogroup

Truck and Delivery Access

A single-berth loading area serving both retail and residential move-in/move-out uses would be located along 77th Avenue SE. Commercial vehicles would access the site by backing into the loading berth from 11th Avenue SE and then pulling out onto 77th Avenue SE to exit. It is expected that a person with the delivery driver or an employee at the commercial use will be assisting in these maneuvers as a means of traffic control. Sight distance exhibits for the loading area access is provided in Appendix F. An Autoturn drawing of a refuse truck and a SU-30 accessing the site loading area is also shown in Appendix F. As materials are unloaded from commercial and moving resident vehicles, they typically walk materials across the entry drive aisle to access retail spaces or residential elevators. To increase driver awareness of this activity and to encourage greater concentration of loading pedestrian activity at a single location, crosswalk pavement markings could be installed across the parking garage access drive aisle.

Parking

The following sections describe the proposed parking supply, code requirements for parking, and peak estimated parking demand.

Proposed Supply

As previously described, a total of 203 parking stalls are proposed (see Table 1 above): 160 stalls reserved for residential use, 43 reserved for retail and restaurant use.

Code Requirement

The project is located in the Town Center area and the minimum required parking spaces for this zone are identified in the City of Mercer Island Municipal Code. The project site is zoned Town Center. Table 12 summarizes the parking code requirement for the project which is given as a range.

Table 12. Code Required Parking Supply

		Proposed Parking Supply	Required Parking Stalls[2]	
Proposed Land Use	**Size[1]**	**Spaces**	**Rate**	**Required**
Residential Parking				
Apartments (LU #221)	160 units	160	1 to 1.4 per unit	160 to 224
Retail Parking				
Shopping Center (LU #820)	7,930 gsf	43 shared with restaurant	2 to 3 per 1,000 gsf	16 to 24
Restaurant (LU #932)	5,417 gsf	43 shared with retail	5 to 10 per 1,000 gsf	27 to 54
Total Parking				203 to 302

1. du = dwelling unit, gsf = gross square-feet, sf = square-feet
2. Mercer Island City Code 19.11.130 B.1

As shown in Table 12, 203 to 302 parking stalls would be required based on City Municipal Code. The proposed parking supply would meet the minimum requirements for parking supply for both the residential and commercial uses.

Demand

The parking demand associated with the residential use of the proposed project was calculated using the King County Right Size Parking calculator[3]. The King County Right Size Parking calculator is an online tool developed by King County that estimates parking/unit ratios for multifamily developments throughout urban areas of King County. The Right Size Parking calculator relies on the unit mix of the proposed development and the development location to estimate a parking demand ratio. Based on the calculator and unit mix, an average parking rate of 0.83 per unit was assumed. Parking spaces are not expected to be bundled and an estimated monthly charge of $200 per parking stall.

For the retail use, the parking rate used to estimate the peak parking demand was based on the ITE Parking Generation rates. The ITE Parking Generation land use assumed for the analysis included Shopping Center (LU #820) and High Turnover Sit Down Restaurant (LU #932). The number of required parking spaces consistent with City code, estimated peak parking demand, and proposed parking supply are summarized in Table 13. Detailed parking demand calculations can be found in Appendix E.

Table 13. Parking Demand

Proposed Land Use	Size[1]	Required Parking Stalls[2]	Peak Parking Demand	Proposed Parking Supply
Residential Parking				
Apartments (LU #221)	160 units	160 to 224	131 vehicles	160 stalls
Retail Parking				
Shopping Center (LU #820)	7,930 gsf	16 to 24	15 vehicles	43 Stalls
Restaurant (LU #932)	5,417 gsf	27 to 54	51 vehicles	
Total Parking		203 to 302	198 stalls	203 stalls

1. du = dwelling unit, sf = square-feet
2. Mercer Island City Code 19.11.110 B.1

As shown in Table 13, the proposed commercial parking supply matches the minimum required number of parking spaces but does not accommodate the estimated peak parking demand for each commercial land use. The proposed residential parking supply matches the required parking stalls for residential uses but does accommodate the residential peak parking demand.

A shared parking analysis was conducted which involves time of day distributions applied to each individual land use's peak parking demand to find overall peak demand per hour of day. Appendix E contains a shared parking demand analysis. As shown in Appendix E, the overall peak parking demand for the development is expected to occur at 8 p.m. on a typical weekday with a peak demand of 149 vehicles, considerably less than the supply of 203 spaces. However, the peak commercial demand of 66 vehicles (15 for retail and 51 for restaurant) would occur at 12 p.m. while the residential demand is expected to be just 66 vehicles out of a 160-parking space supply on a typical weekday. Thus, the commercial parking supply would not be able to accommodate the peak commercial demand at certain times the day. This shortage in commercial parking would justify the need of a shared parking plan on-site and is explained further in the following section.

[3] www.rightsizeparking.org

Shared Parking Management

The applicant proposes to create a shared parking management plan to accommodate the site's residential and commercial parking demands.

To address the shortage in commercial parking spaces, the applicant proposes to allocate **at minimum** 23 of the 160 residential spaces as "flex spaces", which are designated to be residential only during 9 PM – 11 AM but available for retail/restaurant use between 11 AM – 9 PM. Mercer Island prefers a 10 percent additional parking supply availability, which would suggest approximately 30 total spaces needed as flex spaces. These flex spaces would help accommodate the excess commercial demand. These flex spaces would generally cost less monthly than residential 24-hour spaces.

Similarly, a portion of the 43 commercial spaces can also be designated as flex spaces in order to meet any additional potential residential demand outside of commercial demand hours (9 PM – 11 AM). The final amount of these flex spaces would be dependent on residential tenant parking demand once occupancy has begun. Details regarding parking enforcement and signage would be provided later throughout the permitting process.

Mitigation

The project will be constructing frontage improvements along 78th Avenue, SE 29th Street and 77th Avenue which will include improvements to the pedestrian facilities, improving the walkability in and around the site limits.

Traffic Impact Fees

Traffic impact fees are collected by the City of Mercer Island to fund transportation improvements, accommodating anticipated growth in the City. This project will be subject to paying these fees, contributing to the overall mitigation of the project.

Based on MICC 19.19, the city of Mercer Island charges the following impact fees:

- $2,561.46 per multi-family unit
- Restaurant and Retail uses are exempt.

For up to 160 multifamily units, the traffic impact fees are expected to be $409,833.60. Because the retail and restaurant uses are exempt, no credit is calculated for the existing uses. The City will finalize the impact fee calculations at building permit issuance.

Findings and Recommendations

As shown in the previous sections, no significant adverse impacts to traffic or parking are anticipated with the proposed project. The following summarizes findings and recommendations for project implementation.

- **Project Description.** The project would construct a mixed-use building providing approximately 7,930 square feet of general retail space, 5,417 square feet of restaurant and 160 multifamily units.

- **Trip Generation**. The project is anticipated to generate 86 net new AM peak hour trips, and 27 net new PM peak hour trips.

- **Traffic Operations**. All study intersections and the project driveway are anticipated to operate at LOS D or better, which meets the respective LOS Standards.

- **Parking.** The project proposes a total of 203 parking stalls which is anticipated to meet the projected parking demand for the project when shared parking is implemented.

Appendix A:Traffic Counts

Existing On-Site Peak Hour Trips															
	Driveway	**1**		**2**		**3**		**4**		**5**		**TOTAL**		**PEAK HOUR**		
	Time	**in**	**out**	**in**	**out**	**in**	**out**	**in**	**out**	**in**	**out**	**in**	**out**	**in**	**out**	**total**
AM Peak Hour	7:00	2	1	1	3	0	0	0	0	1	1	4	5			
	7:15	0	0	0	0	0	1	1	1	2	0	3	2			
	7:30	0	0	0	0	0	0	0	0	0	0	0	0			
	7:45	0	1	0	0	0	0	0	0	2	0	2	1	9	8	17
	8:00	0	1	0	1	0	0	0	0	2	0	2	2	7	5	12
	8:15	2	4	0	1	0	0	1	0	0	0	3	5	7	8	15
	8:30	2	1	0	0	0	0	0	0	1	0	3	1	**10**	**9**	**19**
	8:45	0	0	0	0	0	0	0	0	1	0	1	0	9	8	17
	Site	**1**		**2**		**3**		**4**		**5**		**TOTAL**		**PEAK HOUR**		
PM Peak Hour	16:00	2	5	0	3	0	0	1	2	4	1	7	11			
	16:15	5	3	0	3	0	0	0	2	4	1	9	9			
	16:30	3	6	1	1	1	1	1	1	2	0	8	9			
	16:45	8	11	0	3	2	1	1	1	8	4	19	20	43	49	92
	17:00	2	5	2	2	2	0	1	2	3	0	10	9	46	47	93
	17:15	3	4	0	0	1	2	1	0	4	2	9	8	46	46	92
	17:30	2	5	1	0	0	2	4	3	4	1	11	11	**49**	**48**	**97**
	17:45	11	6	0	0	1	1	1	1	10	1	23	9	53	37	90

Mercer Island - Driveway Counts
Thursday, November 15, 2018
SITE 1

	SITE 1 (AM)	
TIME	**IN**	**OUT**
7:00	2	1
7:15	0	0
7:30	0	0
7:45	0	1
8:00	0	1
8:15	2	4
8:30	2	1
8:45	0	0
TOTAL	6	8

	Site 1 (PM)	
TIME	**IN**	**OUT**
16:00	2	5
16:15	5	3
16:30	3	6
16:45	8	11
17:00	2	5
17:15	3	4
17:30	2	5
17:45	11	6
TOTAL	36	45

Mercer Island - Driveway Counts
Thursday, November 15, 2018
SITE 2

	SITE 2 (AM)	
TIME	**IN**	**OUT**
7:00	1	3
7:15	0	0
7:30	0	0
7:45	0	0
8:00	0	1
8:15	0	1
8:30	0	0
8:45	0	0
TOTAL	1	5

	Site 2 (PM)	
TIME	**IN**	**OUT**
16:00	0	3
16:15	0	3
16:30	1	1
16:45	0	3
17:00	2	2
17:15	0	0
17:30	1	0
17:45	0	0
TOTAL	4	12

Mercer Island - Driveway Counts
Thursday, November 15, 2018
SITE 3

	SITE 3 (AM)	
TIME	**IN**	**OUT**
7:00	0	0
7:15	0	1
7:30	0	0
7:45	0	0
8:00	0	0
8:15	0	0
8:30	0	0
8:45	0	0
TOTAL	0	1

	Site 3 (PM)	
TIME	**IN**	**OUT**
16:00	0	0
16:15	0	0
16:30	1	1
16:45	2	1
17:00	2	0
17:15	1	2
17:30	0	2
17:45	1	1
TOTAL	7	7

Mercer Island - Driveway Counts
Thursday, November 15, 2018
SITE 4

	SITE 4 (AM)	
TIME	**IN**	**OUT**
7:00	0	0
7:15	1	1
7:30	0	0
7:45	0	0
8:00	0	0
8:15	1	0
8:30	0	0
8:45	0	0
TOTAL	2	1

	Site 4 (PM)	
TIME	**IN**	**OUT**
16:00	1	2
16:15	0	2
16:30	1	1
16:45	1	1
17:00	1	2
17:15	1	0
17:30	4	3
17:45	1	1
TOTAL	10	12

Mercer Island - Driveway Counts
Thursday, November 15, 2018
SITE 5

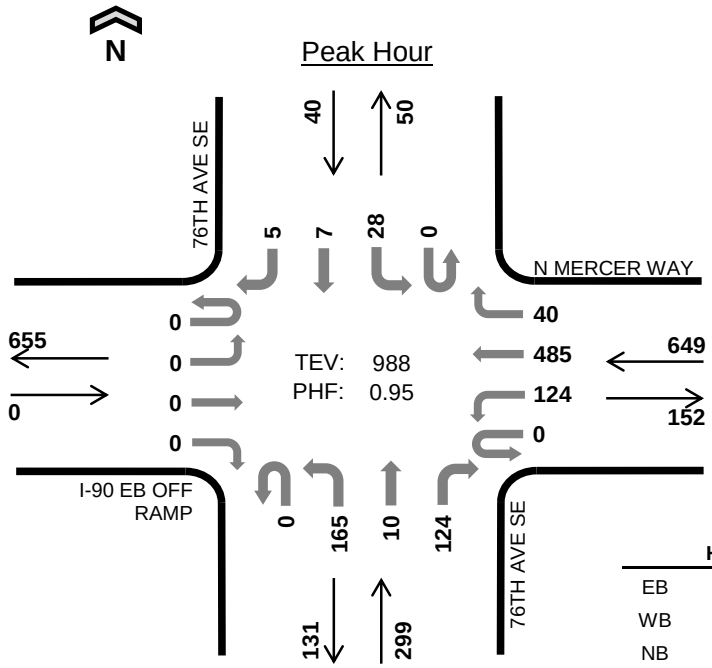
	SITE 5 (AM)	
TIME	**IN**	**OUT**
7:00	1	1
7:15	2	0
7:30	0	0
7:45	2	0
8:00	2	0
8:15	0	0
8:30	1	0
8:45	1	0
TOTAL	9	1

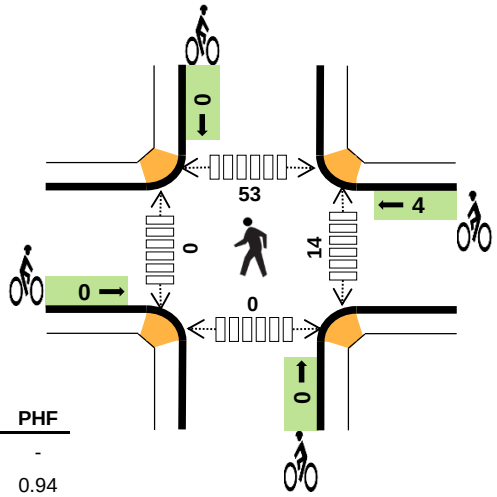
	Site 5 (PM)	
TIME	**IN**	**OUT**
16:00	4	1
16:15	4	1
16:30	2	0
16:45	8	4
17:00	3	0
17:15	4	2
17:30	4	1
17:45	10	1
TOTAL	39	10


77th Ave SE
77th Ave SE
78th Ave SE
78th Ave SE
BOTH DRIVEWAYS COMBINED
1
2
3
4
5
SE 29th St
SE 29th St

N MERCER WAY
76TH AVE SE

Date: Tue, Oct 03, 2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	-	-
WB	3.7%	0.94
NB	4.7%	0.89
SB	7.5%	0.77
TOTAL	4.1%	0.95

Two-Hour Count Summaries

Interval Start	I-90 EB OFF RAMP				N MERCER WAY				76TH AVE SE				76TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	18	104	3	0	41	0	21	0	2	1	1	191	0
7:15 AM	0	0	0	0	0	35	115	7	0	35	3	16	0	5	1	5	222	0
7:30 AM	0	0	0	0	0	28	113	16	0	40	3	27	0	7	7	4	245	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**28**	**113**	**8**	**0**	**36**	**0**	**39**	**0**	**10**	**2**	**1**	**237**	895
8:00 AM	**0**	**0**	**0**	**0**	**0**	**31**	**126**	**10**	**0**	**47**	**1**	**36**	**0**	**7**	**2**	**1**	**261**	965
8:15 AM	**0**	**0**	**0**	**0**	**0**	**21**	**132**	**8**	**0**	**41**	**5**	**24**	**0**	**8**	**0**	**1**	**240**	983
8:30 AM	**0**	**0**	**0**	**0**	**0**	**44**	**114**	**14**	**0**	**41**	**4**	**25**	**0**	**3**	**3**	**2**	**250**	**988**
8:45 AM	0	0	0	0	0	42	71	18	0	26	4	42	0	12	7	3	225	976
Count Total	0	0	0	0	0	247	888	84	0	307	20	230	0	54	23	18	1,871	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**124**	**485**	**40**	**0**	**165**	**10**	**124**	**0**	**28**	**7**	**5**	**988**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

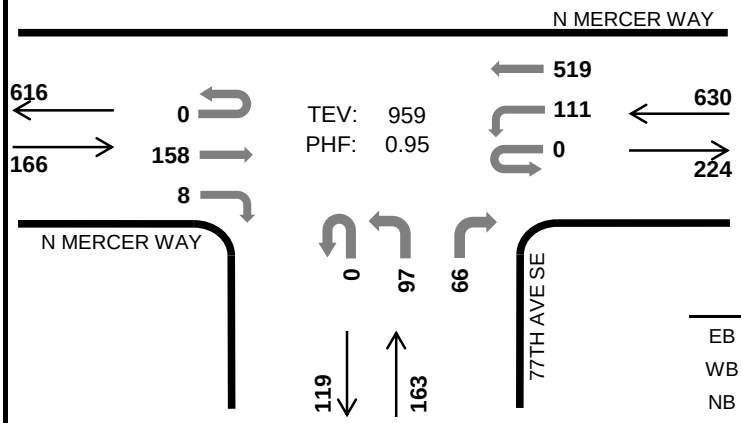
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	5	3	0	*8*	0	0	0	0	*0*	4	0	4	0	*8*
7:15 AM	0	6	5	0	*11*	0	2	0	0	*2*	4	0	6	0	*10*
7:30 AM	0	10	1	1	*12*	0	1	2	0	*3*	0	0	14	0	*14*
7:45 AM	**0**	**8**	**3**	**1**	***12***	**0**	**3**	**0**	**0**	***3***	**3**	**0**	**10**	**0**	*13*
8:00 AM	**0**	**6**	**3**	**1**	***10***	**0**	**1**	**0**	**0**	***1***	**2**	**0**	**12**	**0**	*14*
8:15 AM	**0**	**4**	**5**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**7**	**0**	**11**	**0**	*18*
8:30 AM	**0**	**6**	**3**	**1**	***10***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**20**	**0**	***22***
8:45 AM	0	10	4	1	*15*	0	1	1	0	*2*	2	0	8	0	*10*
Count Total	0	55	27	5	*87*	0	8	3	0	*11*	24	0	85	0	*109*
Peak Hour	**0**	**24**	**14**	**3**	***41***	**0**	**4**	**0**	**0**	***4***	**14**	**0**	**53**	**0**	***67***

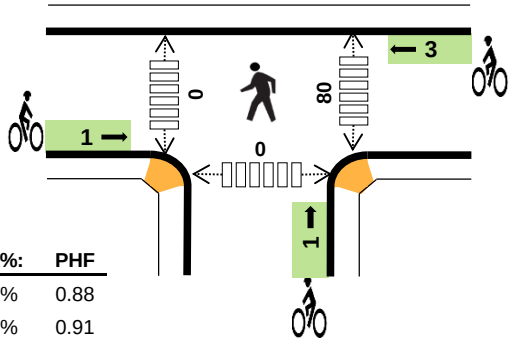
77TH AVE SE
N MERCER WAY

N

Peak Hour

Date: Tue, Oct 10, 2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	9.0%	0.88
WB	7.0%	0.91
NB	9.2%	0.95
SB	-	-
TOTAL	7.7%	0.95

Two-Hour Count Summaries

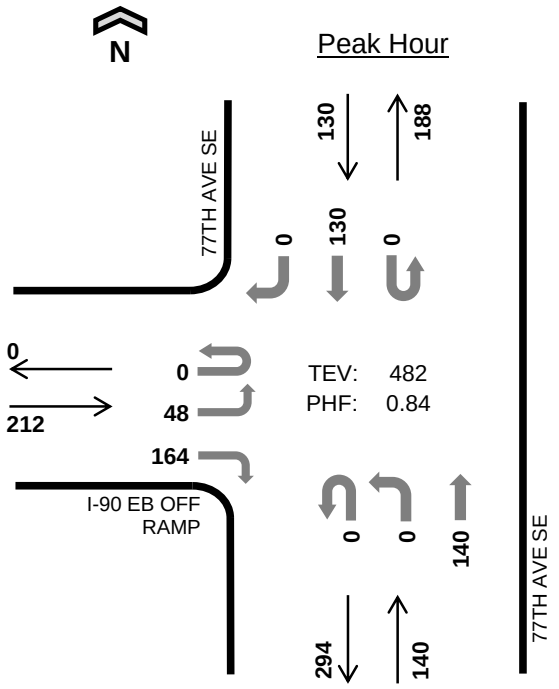
Interval Start	N MERCER WAY Eastbound				N MERCER WAY Westbound				77TH AVE SE Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	26	1	1	36	108	0	0	14	0	14	0	0	0	0	200	0
7:15 AM	0	0	20	3	0	18	121	0	0	22	0	16	0	0	0	0	200	0
7:30 AM	**0**	**0**	**43**	**4**	**0**	**30**	**119**	**0**	**0**	**28**	**0**	**14**	**0**	**0**	**0**	**0**	**238**	0
7:45 AM	**0**	**0**	**37**	**3**	**0**	**26**	**148**	**0**	**0**	**24**	**0**	**14**	**0**	**0**	**0**	**0**	**252**	890
8:00 AM	**0**	**0**	**39**	**0**	**0**	**30**	**127**	**0**	**0**	**24**	**0**	**16**	**0**	**0**	**0**	**0**	**236**	926
8:15 AM	**0**	**0**	**39**	**1**	**0**	**25**	**125**	**0**	**0**	**21**	**0**	**22**	**0**	**0**	**0**	**0**	**233**	**959**
8:30 AM	0	0	40	2	0	28	131	0	0	23	0	9	0	0	0	0	233	954
8:45 AM	0	0	45	3	0	23	115	0	0	25	0	16	0	0	0	0	227	929
Count Total	0	0	289	17	1	216	994	0	0	181	0	121	0	0	0	0	1,819	0
Peak Hour	**0**	**0**	**158**	**8**	**0**	**111**	**519**	**0**	**0**	**97**	**0**	**66**	**0**	**0**	**0**	**0**	**959**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

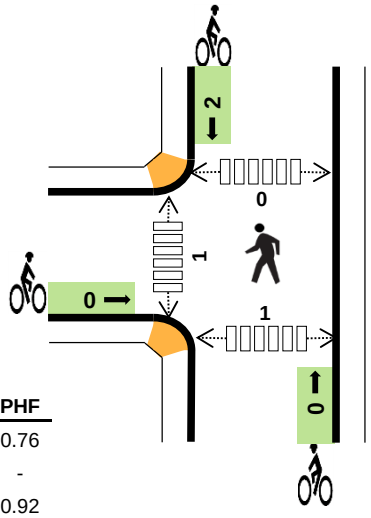
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	8	2	0	*12*	1	1	0	0	*2*	13	0	0	0	*13*
7:15 AM	4	8	2	0	*14*	0	2	0	0	*2*	20	0	0	0	*20*
7:30 AM	**3**	**11**	**5**	**0**	***19***	**1**	**2**	**0**	**0**	***3***	**11**	**0**	**0**	**0**	*11*
7:45 AM	**6**	**12**	**4**	**0**	***22***	**0**	**0**	**0**	**0**	***0***	**25**	**0**	**0**	**0**	*25*
8:00 AM	**3**	**12**	**1**	**0**	***16***	**0**	**1**	**1**	**0**	***2***	**21**	**0**	**0**	**0**	*21*
8:15 AM	**3**	**9**	**5**	**0**	***17***	**0**	**0**	**0**	**0**	***0***	**23**	**0**	**0**	**0**	***23***
8:30 AM	0	9	1	0	*10*	0	1	0	0	*1*	6	0	0	1	*7*
8:45 AM	6	12	2	0	*20*	0	1	0	0	*1*	8	0	0	0	*8*
Count Total	27	81	22	0	*130*	2	8	1	0	*11*	127	0	0	1	*128*
Peak Hr	**15**	**44**	**15**	**0**	***74***	**1**	**3**	**1**	**0**	***5***	**80**	**0**	**0**	**0**	***80***

77TH AVE SE
I-90 EB OFF RAMP

Peak Hour



Date: Tue, Mar 27, 2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	6.6%	0.76
WB	-	-
NB	5.7%	0.92
SB	6.9%	0.79
TOTAL	6.4%	0.84

Two-Hour Count Summaries

Interval Start	I-90 EB OFF RAMP				0				77TH AVE SE				77TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	6	0	29	0	0	0	0	0	0	21	0	0	0	28	0	84	0
7:15 AM	0	8	0	41	0	0	0	0	0	0	26	0	0	0	21	0	96	0
7:30 AM	0	13	0	37	0	0	0	0	0	0	25	0	0	0	27	0	102	0
7:45 AM	**0**	**19**	**0**	**51**	**0**	**0**	**0**	**0**	**0**	**0**	**33**	**0**	**0**	**0**	**41**	**0**	**144**	426
8:00 AM	**0**	**9**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**0**	**0**	**27**	**0**	**104**	446
8:15 AM	**0**	**8**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**0**	**0**	**22**	**0**	**99**	449
8:30 AM	**0**	**12**	**0**	**45**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**40**	**0**	**135**	**482**
8:45 AM	0	8	0	48	0	0	0	0	0	0	19	0	0	0	34	0	109	447
Count Total	0	83	0	319	0	0	0	0	0	0	231	0	0	0	240	0	873	0
Peak Hour	**0**	**48**	**0**	**164**	**0**	**0**	**0**	**0**	**0**	**0**	**140**	**0**	**0**	**0**	**130**	**0**	**482**	**0**

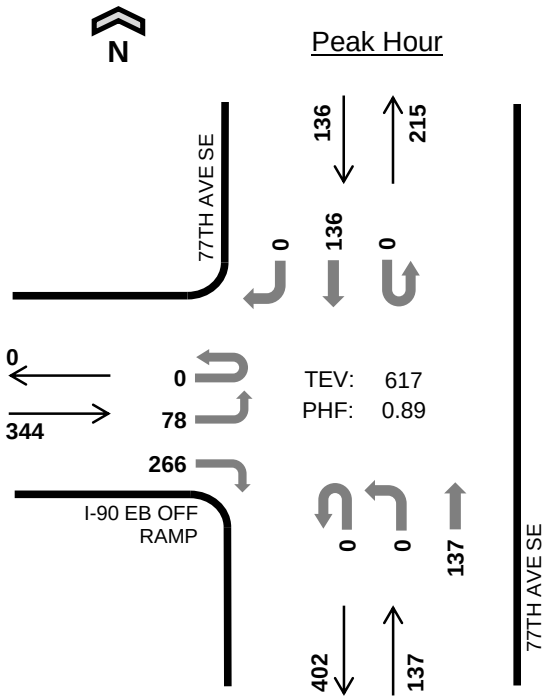
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

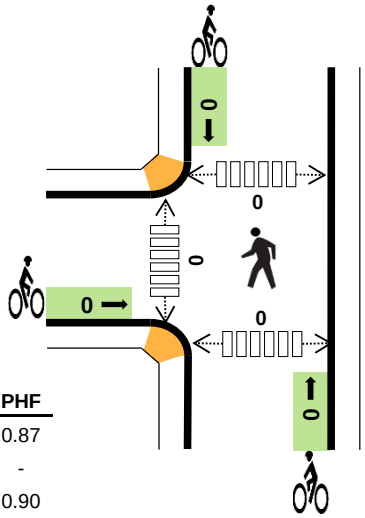
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	0	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	5	0	1	1	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	2	0	3	2	*7*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**6**	**0**	**1**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**1**	**0**	**1**	**4**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
8:15 AM	**4**	**0**	**3**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:30 AM	**3**	**0**	**3**	**2**	***8***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***
8:45 AM	3	0	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	26	0	13	14	*53*	0	0	0	2	*2*	0	1	0	1	*2*
Peak Hr	**14**	**0**	**8**	**9**	***31***	**0**	**0**	**0**	**2**	***2***	**0**	**1**	**0**	**1**	***2***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

77TH AVE SE
I-90 EB OFF RAMP

Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	5.2%	0.87
WB	-	-
NB	2.2%	0.90
SB	2.9%	0.89
TOTAL	4.1%	0.89

Two-Hour Count Summaries

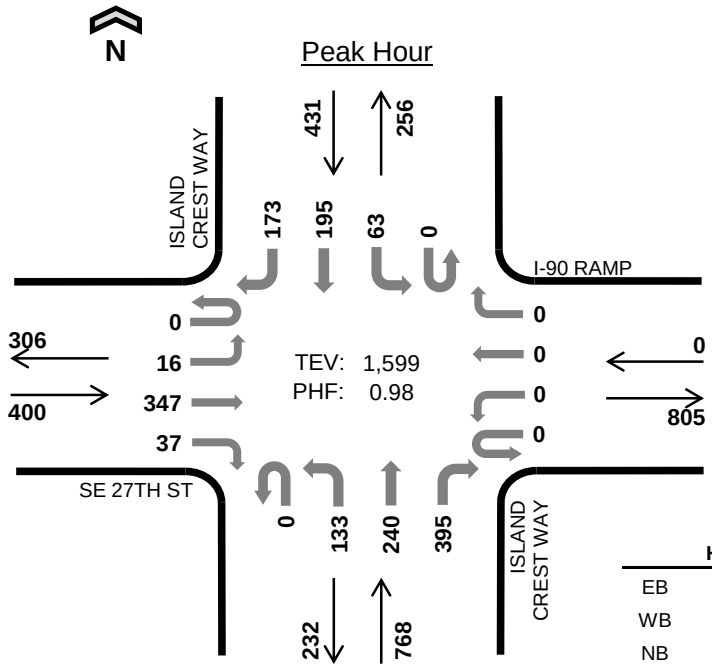
Interval Start	I-90 EB OFF RAMP				0				77TH AVE SE				77TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	14	0	47	0	0	0	0	0	0	39	0	0	0	42	0	142	0
4:15 PM	0	21	0	58	0	0	0	0	0	0	22	0	0	0	35	0	136	0
4:30 PM	0	22	0	62	0	0	0	0	0	0	31	0	0	0	27	0	142	0
4:45 PM	**0**	**18**	**0**	**68**	**0**	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**0**	**0**	**29**	**0**	**150**	570
5:00 PM	**0**	**16**	**0**	**58**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**0**	**0**	**0**	**38**	**0**	**143**	571
5:15 PM	**0**	**28**	**0**	**71**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**0**	**0**	**0**	**36**	**0**	**173**	608
5:30 PM	**0**	**16**	**0**	**69**	**0**	**0**	**0**	**0**	**0**	**0**	**33**	**0**	**0**	**0**	**33**	**0**	**151**	**617**
5:45 PM	0	19	0	61	0	0	0	0	0	0	25	0	0	0	40	0	145	612
Count Total	0	154	0	494	0	0	0	0	0	0	254	0	0	0	280	0	1,182	0
Peak Hour	**0**	**78**	**0**	**266**	**0**	**0**	**0**	**0**	**0**	**0**	**137**	**0**	**0**	**0**	**136**	**0**	**617**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

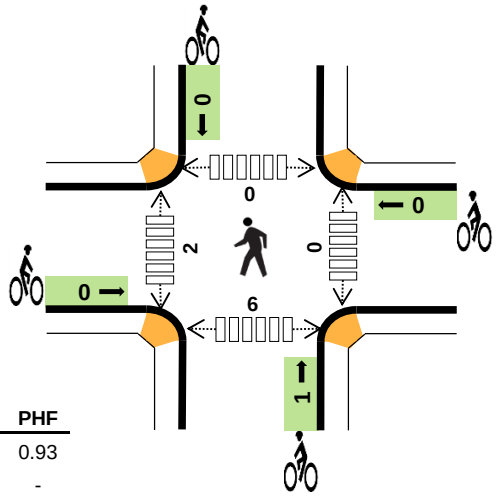
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	0	1	3	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	3	0	1	1	*5*	0	0	0	1	*1*	0	0	0	0	*0*
4:30 PM	6	0	1	1	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**3**	**0**	**1**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**4**	**0**	**1**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**5**	**0**	**1**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**6**	**0**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	8	0	1	1	*10*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	40	0	7	10	*57*	0	0	0	2	*2*	0	0	0	0	*0*
Peak Hr	**18**	**0**	**3**	**4**	***25***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

ISLAND CREST WAY
SE 27TH ST



Date: Tue, Oct 03, 2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	4.3%	0.93
WB	-	-
NB	2.0%	0.93
SB	6.5%	0.93
TOTAL	3.8%	0.98

Two-Hour Count Summaries

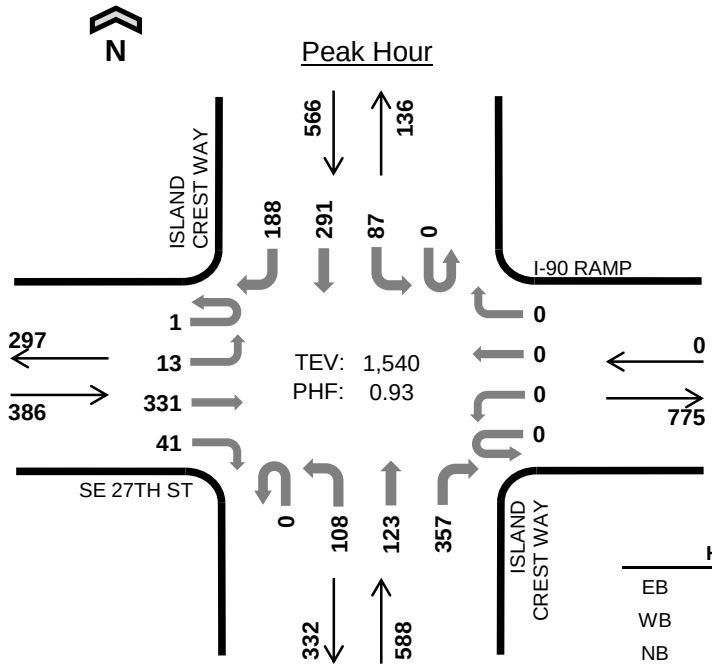
Interval Start	SE 27TH ST Eastbound				I-90 RAMP Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	74	6	0	0	0	0	0	33	41	60	0	11	34	31	291	0
7:15 AM	0	3	84	6	0	0	0	0	0	35	48	73	0	7	38	26	320	0
7:30 AM	0	1	62	10	0	0	0	0	0	35	53	88	0	13	63	53	378	0
7:45 AM	**0**	**1**	**87**	**12**	**0**	**0**	**0**	**0**	**0**	**32**	**65**	**93**	**0**	**19**	**50**	**31**	**390**	1,379
8:00 AM	**0**	**4**	**78**	**9**	**0**	**0**	**0**	**0**	**0**	**37**	**61**	**108**	**0**	**18**	**47**	**44**	**406**	1,494
8:15 AM	**0**	**7**	**85**	**9**	**0**	**0**	**0**	**0**	**0**	**35**	**67**	**97**	**0**	**13**	**47**	**46**	**406**	1,580
8:30 AM	**0**	**4**	**97**	**7**	**0**	**0**	**0**	**0**	**0**	**29**	**47**	**97**	**0**	**13**	**51**	**52**	**397**	**1,599**
8:45 AM	0	2	68	8	0	0	0	0	0	18	50	81	0	23	66	42	358	1,567
Count Total	0	23	635	67	0	0	0	0	0	254	432	697	0	117	396	325	2,946	0
Peak Hour	**0**	**16**	**347**	**37**	**0**	**0**	**0**	**0**	**0**	**133**	**240**	**395**	**0**	**63**	**195**	**173**	**1,599**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

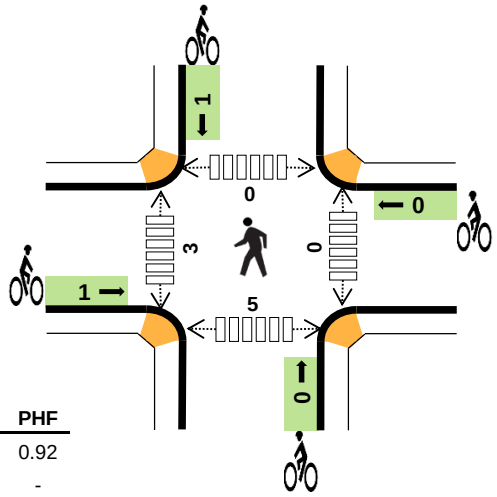
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	3	2	*6*	0	0	0	0	*0*	0	0	0	1	*1*
7:15 AM	4	0	2	2	*8*	0	0	1	0	*1*	0	1	0	1	*2*
7:30 AM	2	0	3	6	*11*	0	0	0	0	*0*	0	1	0	2	*3*
7:45 AM	**2**	**0**	**3**	**8**	***13***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:00 AM	**4**	**0**	**3**	**8**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:15 AM	**4**	**0**	**5**	**5**	***14***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**1**	*1*
8:30 AM	**7**	**0**	**4**	**7**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**3**	***4***
8:45 AM	4	0	5	3	*12*	0	0	1	0	*1*	0	0	0	0	*0*
Count Total	28	0	28	41	*97*	0	0	3	0	*3*	0	4	0	10	*14*
Peak Hour	**17**	**0**	**15**	**28**	***60***	**0**	**0**	**1**	**0**	***1***	**0**	**2**	**0**	**6**	***8***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

ISLAND CREST WAY
SE 27TH ST



Date: Tue, Oct 03, 2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.8%	0.92
WB	-	-
NB	1.2%	0.93
SB	0.9%	0.87
TOTAL	1.0%	0.93

Two-Hour Count Summaries

Interval Start	SE 27TH ST Eastbound				I-90 RAMP Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	4	98	3	0	0	0	0	1	22	34	100	0	23	73	44	402	0
4:15 PM	0	4	73	8	0	0	0	0	0	23	34	103	0	33	64	48	390	0
4:30 PM	0	5	85	16	0	0	0	0	0	19	33	77	0	30	61	59	385	0
4:45 PM	0	9	92	8	0	0	0	0	0	26	33	77	0	15	74	24	358	1,535
5:00 PM	**0**	**5**	**90**	**6**	**0**	**0**	**0**	**0**	**0**	**22**	**35**	**97**	**0**	**23**	**58**	**34**	**370**	1,503
5:15 PM	**0**	**2**	**93**	**10**	**0**	**0**	**0**	**0**	**0**	**32**	**33**	**93**	**0**	**22**	**77**	**54**	**416**	1,529
5:30 PM	**1**	**4**	**70**	**13**	**0**	**0**	**0**	**0**	**0**	**30**	**34**	**92**	**0**	**15**	**77**	**43**	**379**	1,523
5:45 PM	**0**	**2**	**78**	**12**	**0**	**0**	**0**	**0**	**0**	**24**	**21**	**75**	**0**	**27**	**79**	**57**	**375**	**1,540**
Count Total	1	35	679	76	0	0	0	0	1	198	257	714	0	188	563	363	3,075	0
Peak Hour	**1**	**13**	**331**	**41**	**0**	**0**	**0**	**0**	**0**	**108**	**123**	**357**	**0**	**87**	**291**	**188**	**1,540**	**0**

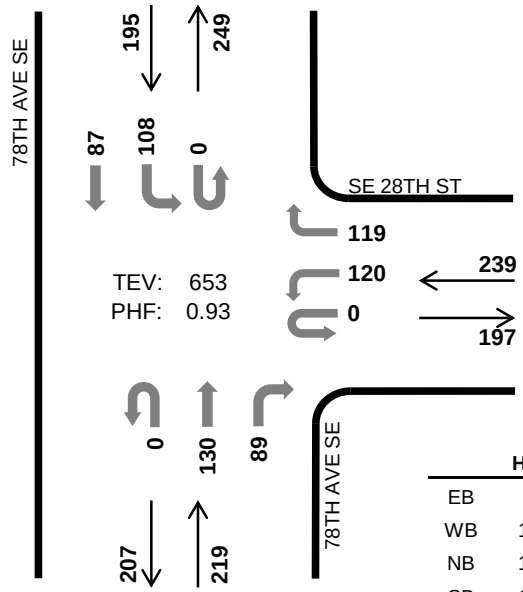
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	4	6	*12*	0	0	0	0	*0*	0	0	0	1	*1*
4:15 PM	1	0	0	2	*3*	0	0	0	0	*0*	0	1	0	0	*1*
4:30 PM	0	0	2	2	*4*	0	0	1	0	*1*	0	0	0	0	*0*
4:45 PM	0	0	1	2	*3*	0	0	0	0	*0*	0	1	0	4	*5*
5:00 PM	**1**	**0**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**1**	*2*
5:15 PM	**0**	**0**	**3**	**1**	***4***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**2**	*3*
5:30 PM	**1**	**0**	**1**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
5:45 PM	**1**	**0**	**2**	**1**	***4***	**0**	**0**	**0**	**1**	***1***	**0**	**1**	**0**	**1**	***2***
Count Total	6	0	14	17	*37*	1	0	1	1	*3*	0	5	0	10	*15*
Peak Hour	**3**	**0**	**7**	**5**	***15***	**1**	**0**	**0**	**1**	***2***	**0**	**3**	**0**	**5**	***8***

78TH AVE SE
SE 28TH ST

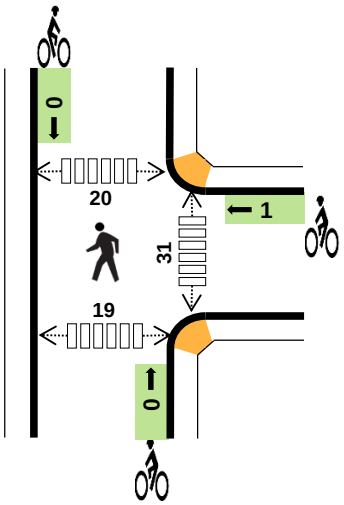
N

Peak Hour



	HV %:	PHF
EB	-	-
WB	1.3%	0.91
NB	1.8%	0.88
SB	1.5%	0.79
TOTAL	1.5%	0.93

Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



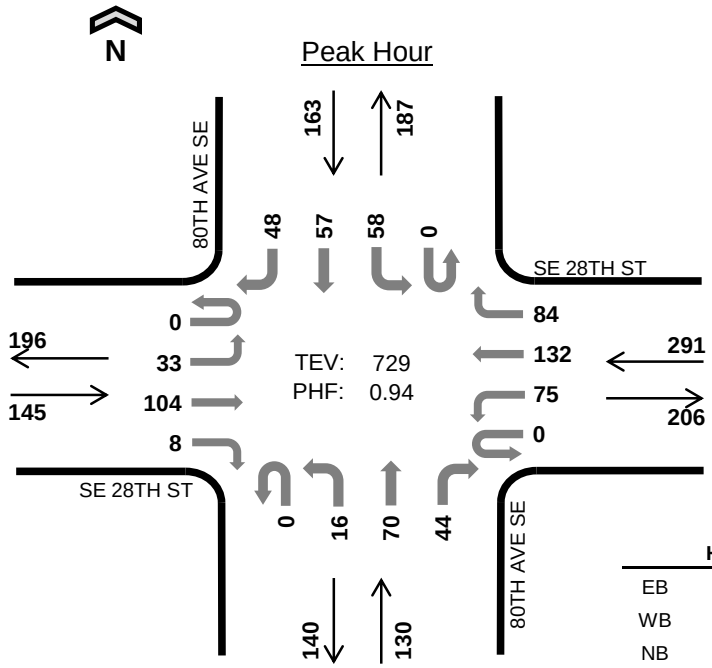
Two-Hour Count Summaries

Interval Start	0				SE 28TH ST				78TH AVE SE				78TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**38**	**0**	**0**	**26**	**24**	**0**	**21**	**21**	**0**	**158**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**33**	**0**	**28**	**0**	**0**	**32**	**18**	**0**	**22**	**15**	**0**	**148**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**31**	**0**	**22**	**0**	**0**	**40**	**17**	**0**	**37**	**25**	**0**	**172**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**28**	**0**	**31**	**0**	**0**	**32**	**30**	**0**	**28**	**26**	**0**	**175**	**653**
5:00 PM	0	0	0	0	0	24	0	17	0	0	25	33	0	22	28	0	149	644
5:15 PM	0	0	0	0	0	24	0	22	0	0	27	29	0	30	10	0	142	638
5:30 PM	0	0	0	0	0	22	0	31	0	0	24	13	0	31	18	0	139	605
5:45 PM	0	0	0	0	0	24	0	28	0	0	32	17	0	24	26	0	151	581
Count Total	0	0	0	0	0	214	0	217	0	0	238	181	0	215	169	0	1,234	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**120**	**0**	**119**	**0**	**0**	**130**	**89**	**0**	**108**	**87**	**0**	**653**	**0**

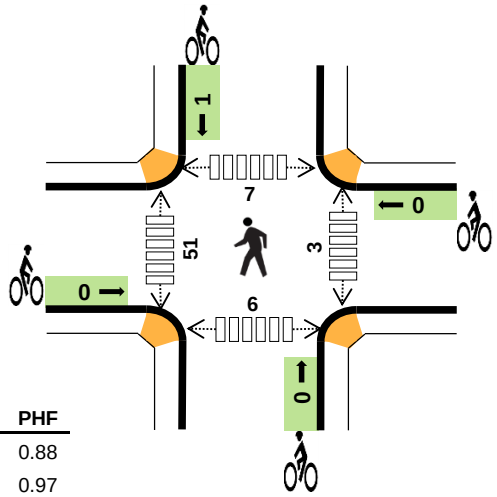
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**0**	**1**	**1**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**7**	**0**	**6**	**1**	*14*
4:15 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**6**	**0**	**5**	**4**	*15*
4:30 PM	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**0**	**0**	***1***	**6**	**0**	**4**	**6**	*16*
4:45 PM	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**12**	**0**	**5**	**8**	***25***
5:00 PM	0	0	1	1	*2*	0	0	0	0	*0*	3	0	2	2	*7*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	6	0	4	1	*11*
5:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	9	0	6	10	*25*
5:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	6	0	7	7	*20*
Count Total	0	4	6	5	*15*	0	1	0	0	*1*	55	0	39	39	*133*
Peak Hr	**0**	**3**	**4**	**3**	***10***	**0**	**1**	**0**	**0**	***1***	**31**	**0**	**20**	**19**	***70***

80TH AVE SE
SE 28TH ST



Date: Tue, Mar 27, 2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	0.7%	0.88
WB	2.4%	0.97
NB	0.8%	0.79
SB	1.2%	0.87
TOTAL	1.5%	0.94

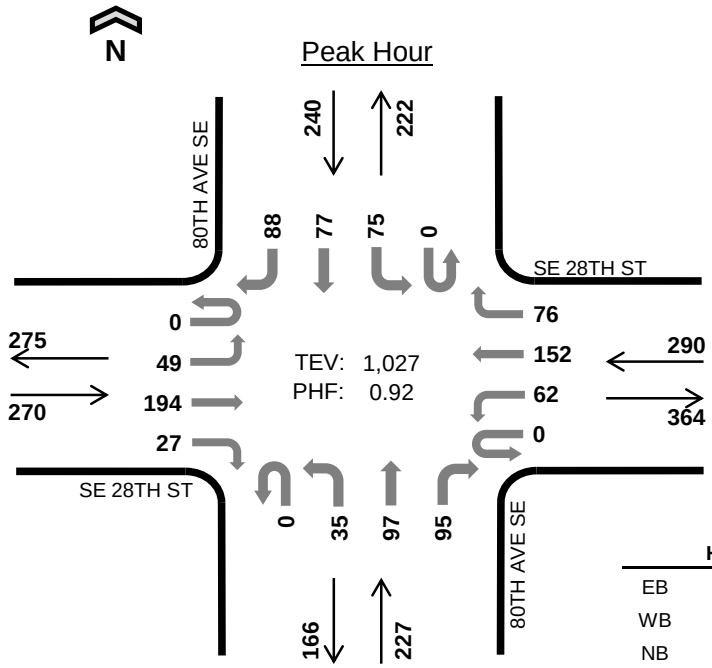
Two-Hour Count Summaries

Interval Start	SE 28TH ST Eastbound				SE 28TH ST Westbound				80TH AVE SE Northbound				80TH AVE SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	10	14	2	0	10	28	17	0	1	14	5	0	12	15	14	142	0
7:15 AM	0	9	25	3	0	16	25	17	0	5	6	4	0	13	10	11	144	0
7:30 AM	**0**	**7**	**33**	**1**	**0**	**18**	**32**	**24**	**0**	**2**	**16**	**11**	**0**	**17**	**12**	**7**	**180**	0
7:45 AM	**0**	**7**	**28**	**1**	**0**	**23**	**31**	**18**	**0**	**7**	**20**	**8**	**0**	**14**	**19**	**14**	**190**	656
8:00 AM	**0**	**2**	**22**	**3**	**0**	**14**	**33**	**23**	**0**	**4**	**11**	**10**	**0**	**16**	**12**	**15**	**165**	679
8:15 AM	**0**	**17**	**21**	**3**	**0**	**20**	**36**	**19**	**0**	**3**	**23**	**15**	**0**	**11**	**14**	**12**	**194**	**729**
8:30 AM	0	7	22	7	0	18	37	22	0	5	17	8	0	9	13	8	173	722
8:45 AM	0	13	20	3	0	23	37	18	0	4	19	10	0	6	19	10	182	714
Count Total	0	72	185	23	0	142	259	158	0	31	126	71	0	98	114	91	1,370	0
Peak Hour	**0**	**33**	**104**	**8**	**0**	**75**	**132**	**84**	**0**	**16**	**70**	**44**	**0**	**58**	**57**	**48**	**729**	**0**

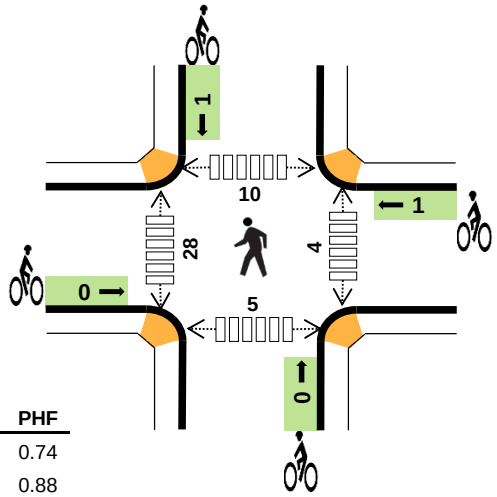
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	5	0	1	*6*
7:15 AM	0	1	0	2	*3*	0	1	0	0	*1*	0	15	0	0	*15*
7:30 AM	**1**	**3**	**1**	**0**	***5***	**0**	**0**	**0**	**1**	***1***	**0**	**8**	**1**	**1**	*10*
7:45 AM	**0**	**1**	**0**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**13**	**1**	**2**	*16*
8:00 AM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**3**	**15**	**3**	**3**	*24*
8:15 AM	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**15**	**2**	**0**	***17***
8:30 AM	3	1	0	0	*4*	0	0	0	0	*0*	1	9	0	4	*14*
8:45 AM	1	5	1	1	*8*	0	0	0	0	*0*	1	11	3	2	*17*
Count Total	6	15	2	5	*28*	0	1	0	1	*2*	5	91	10	13	*119*
Peak Hour	**1**	**7**	**1**	**2**	***11***	**0**	**0**	**0**	**1**	***1***	**3**	**51**	**7**	**6**	***67***

80TH AVE SE
SE 28TH ST



Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	0.4%	0.74
WB	1.4%	0.88
NB	3.1%	0.81
SB	2.5%	0.86
TOTAL	1.8%	0.92

Two-Hour Count Summaries

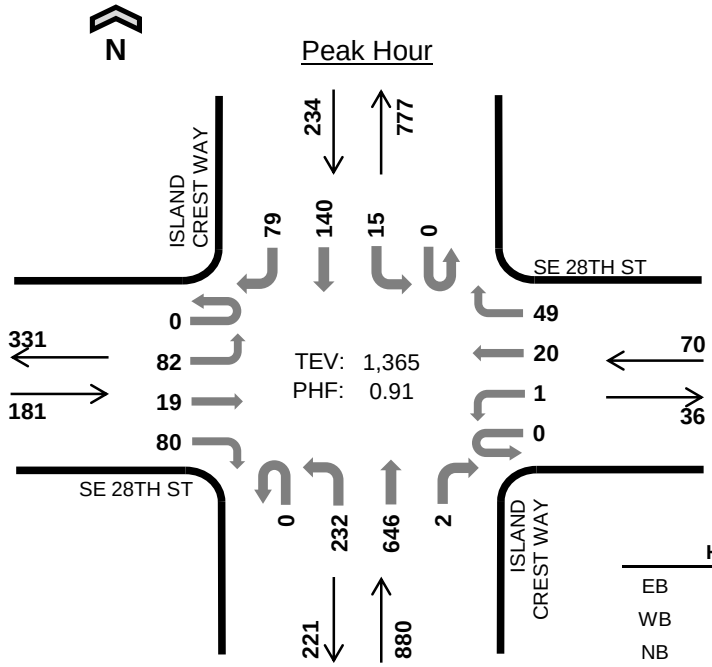
Interval Start	SE 28TH ST Eastbound				SE 28TH ST Westbound				80TH AVE SE Northbound				80TH AVE SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**11**	**53**	**3**	**0**	**14**	**43**	**25**	**0**	**12**	**23**	**27**	**0**	**23**	**27**	**17**	**278**	0
4:15 PM	**0**	**11**	**35**	**5**	**0**	**23**	**35**	**19**	**0**	**6**	**21**	**26**	**0**	**24**	**18**	**28**	**251**	0
4:30 PM	**0**	**10**	**43**	**8**	**0**	**11**	**39**	**13**	**0**	**13**	**35**	**22**	**0**	**14**	**19**	**25**	**252**	0
4:45 PM	**0**	**17**	**63**	**11**	**0**	**14**	**35**	**19**	**0**	**4**	**18**	**20**	**0**	**14**	**13**	**18**	**246**	**1,027**
5:00 PM	0	12	48	3	0	14	32	16	0	4	27	33	0	19	24	17	249	998
5:15 PM	0	13	61	6	0	17	32	24	0	7	31	17	0	19	13	14	254	1,001
5:30 PM	0	13	37	1	0	16	41	15	1	8	17	22	0	26	21	15	233	982
5:45 PM	0	9	38	3	0	9	37	6	0	7	16	21	0	23	12	23	204	940
Count Total	0	96	378	40	0	118	294	137	1	61	188	188	0	162	147	157	1,967	0
Peak Hour	**0**	**49**	**194**	**27**	**0**	**62**	**152**	**76**	**0**	**35**	**97**	**95**	**0**	**75**	**77**	**88**	**1,027**	**0**

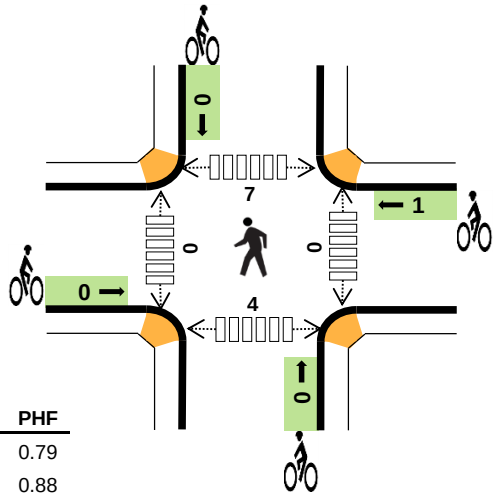
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	**1**	**4**	**3**	**3**	***11***	**0**	**0**	**0**	**0**	***0***	**2**	**10**	**4**	**2**	*18*
4:15 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**1**	***1***	**0**	**11**	**4**	**2**	*17*
4:30 PM	**0**	**0**	**1**	**0**	***1***	**0**	**1**	**0**	**0**	***1***	**1**	**4**	**2**	**0**	*7*
4:45 PM	**0**	**0**	**1**	**2**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**1**	***5***
5:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	9	4	0	*13*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	7	1	3	*11*
5:30 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	10	0	6	*16*
5:45 PM	0	2	0	0	*2*	0	0	0	0	*0*	0	11	1	3	*15*
Count Total	1	8	7	7	*23*	0	1	0	1	*2*	4	65	16	17	*102*
Peak Hour	**1**	**4**	**7**	**6**	***18***	**0**	**1**	**0**	**1**	***2***	**4**	**28**	**10**	**5**	***47***

ISLAND CREST WAY
SE 28TH ST

Date: Tue, Oct 03, 2017
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	2.8%	0.79
WB	5.7%	0.88
NB	1.3%	0.92
SB	9.4%	0.94
TOTAL	3.1%	0.91

Two-Hour Count Summaries

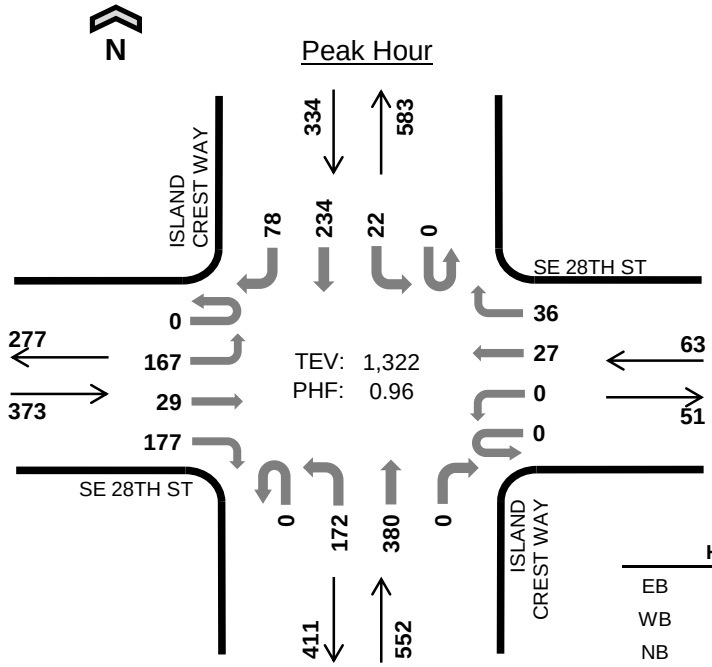
Interval Start	SE 28TH ST Eastbound				SE 28TH ST Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	11	3	22	0	0	7	4	0	34	118	1	0	2	24	13	239	0
7:15 AM	0	14	4	14	0	0	7	6	0	35	142	0	0	3	23	19	267	0
7:30 AM	0	21	3	23	0	0	4	10	0	42	137	0	0	7	42	23	312	0
7:45 AM	**0**	**13**	**3**	**27**	**0**	**1**	**3**	**10**	**0**	**63**	**170**	**1**	**0**	**3**	**39**	**20**	**353**	1,171
8:00 AM	**0**	**26**	**5**	**26**	**0**	**0**	**5**	**15**	**0**	**69**	**171**	**0**	**0**	**2**	**38**	**19**	**376**	1,308
8:15 AM	**0**	**21**	**3**	**12**	**0**	**0**	**6**	**11**	**0**	**50**	**165**	**1**	**0**	**4**	**25**	**25**	**323**	1,364
8:30 AM	**0**	**22**	**8**	**15**	**0**	**0**	**6**	**13**	**0**	**50**	**140**	**0**	**0**	**6**	**38**	**15**	**313**	**1,365**
8:45 AM	0	20	11	26	0	0	7	10	0	47	115	1	0	9	53	17	316	1,328
Count Total	0	148	40	165	0	1	45	79	0	390	1,158	4	0	36	282	151	2,499	0
Peak Hour	**0**	**82**	**19**	**80**	**0**	**1**	**20**	**49**	**0**	**232**	**646**	**2**	**0**	**15**	**140**	**79**	**1,365**	**0**

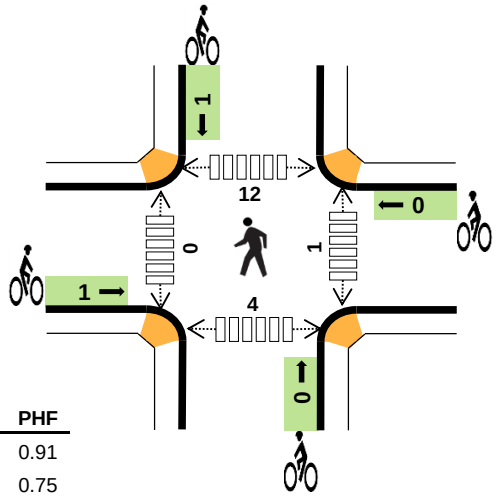
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	2	*5*	0	0	0	0	*0*	0	0	2	0	*2*
7:15 AM	1	0	3	3	*7*	0	1	0	0	*1*	0	0	1	1	*2*
7:30 AM	0	0	4	3	*7*	0	0	0	0	*0*	1	0	0	1	*2*
7:45 AM	**1**	**1**	**4**	**5**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**4**	*4*
8:00 AM	**1**	**2**	**1**	**6**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
8:15 AM	**1**	**1**	**3**	**4**	***9***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**4**	**0**	*4*
8:30 AM	**2**	**0**	**3**	**7**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
8:45 AM	0	0	6	3	*9*	0	1	0	0	*1*	0	0	1	0	*1*
Count Total	6	4	27	33	*70*	0	3	0	0	*3*	1	0	11	6	*18*
Peak Hour	**5**	**4**	**11**	**22**	***42***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**7**	**4**	***11***

ISLAND CREST WAY
SE 28TH ST

Date: Tue, Oct 03, 2017
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.91
WB	1.6%	0.75
NB	1.1%	0.96
SB	1.8%	0.90
TOTAL	1.0%	0.96

Two-Hour Count Summaries

Interval Start	SE 28TH ST Eastbound				SE 28TH ST Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	61	3	36	0	0	9	14	0	49	87	1	0	4	48	20	332	0
4:15 PM	0	61	9	43	0	0	9	12	0	65	86	1	0	2	61	16	365	0
4:30 PM	0	37	6	47	0	0	3	5	0	41	86	1	0	9	54	17	306	0
4:45 PM	0	49	5	37	0	1	5	5	0	28	81	0	0	4	46	27	288	1,291
5:00 PM	**0**	**52**	**7**	**43**	**0**	**0**	**12**	**9**	**0**	**40**	**103**	**0**	**0**	**5**	**46**	**16**	**333**	1,292
5:15 PM	**0**	**47**	**4**	**42**	**0**	**0**	**1**	**9**	**0**	**43**	**88**	**0**	**0**	**5**	**61**	**21**	**321**	1,248
5:30 PM	**0**	**40**	**9**	**49**	**0**	**0**	**6**	**11**	**0**	**39**	**105**	**0**	**0**	**4**	**63**	**20**	**346**	1,288
5:45 PM	**0**	**28**	**9**	**43**	**0**	**0**	**8**	**7**	**0**	**50**	**84**	**0**	**0**	**8**	**64**	**21**	**322**	**1,322**
Count Total	0	375	52	340	0	1	53	72	0	355	720	3	0	41	443	158	2,613	0
Peak Hour	**0**	**167**	**29**	**177**	**0**	**0**	**27**	**36**	**0**	**172**	**380**	**0**	**0**	**22**	**234**	**78**	**1,322**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	1	3	2	*8*	0	0	0	0	*0*	0	2	2	2	*6*
4:15 PM	2	0	0	3	*5*	0	0	0	0	*0*	1	1	3	1	*6*
4:30 PM	0	0	2	2	*4*	0	0	1	0	*1*	0	0	1	3	*4*
4:45 PM	0	0	1	0	*1*	0	1	0	0	*1*	1	0	7	1	*9*
5:00 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
5:15 PM	**0**	**0**	**3**	**1**	***4***	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**2**	*2*
5:30 PM	**0**	**1**	**0**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**0**	*3*
5:45 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**9**	**0**	***10***
Count Total	4	2	12	13	*31*	1	1	1	1	*4*	3	3	25	11	*42*
Peak Hour	**0**	**1**	**6**	**6**	***13***	**1**	**0**	**0**	**1**	***2***	**1**	**0**	**12**	**4**	***17***

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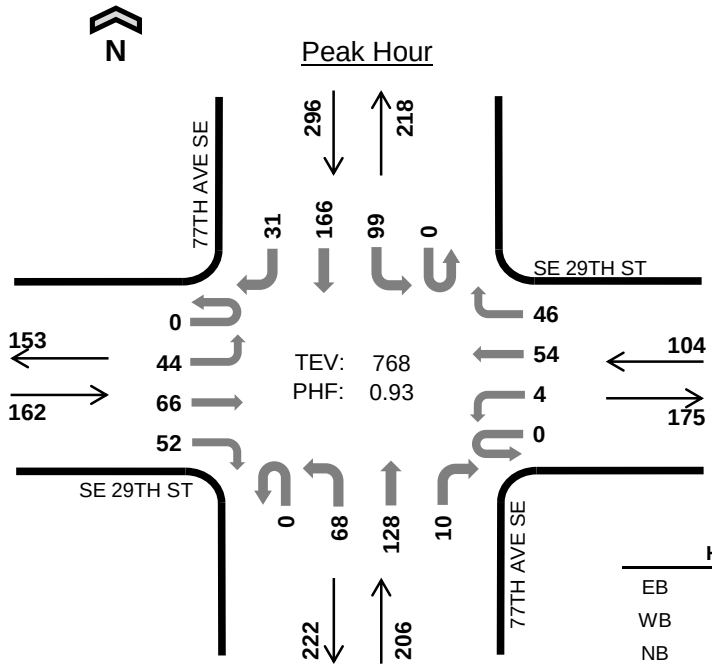
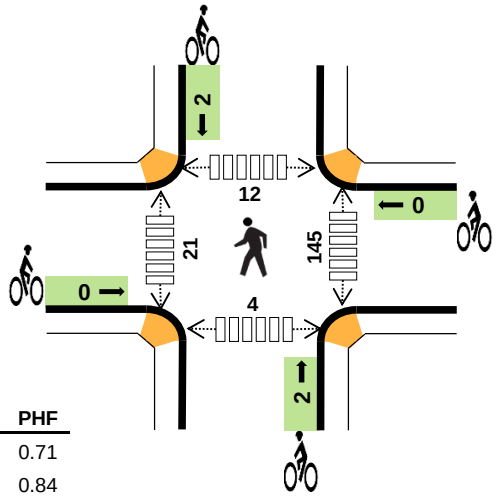
77TH AVE SE
SE 29TH ST



Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.71
WB	1.0%	0.84
NB	0.0%	0.87
SB	0.3%	0.90
TOTAL	0.3%	0.93

Two-Hour Count Summaries

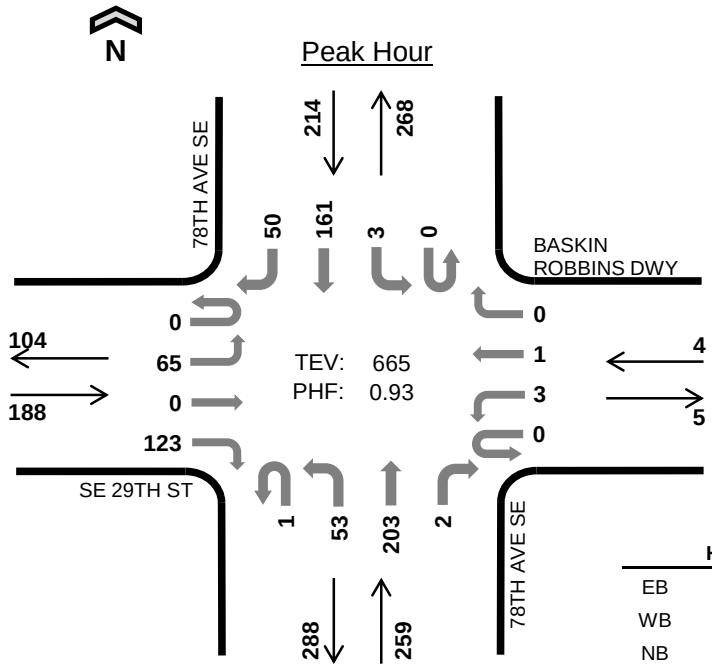
Interval Start	SE 29TH ST Eastbound				SE 29TH ST Westbound				77TH AVE SE Northbound				77TH AVE SE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	11	15	9	0	2	12	18	0	17	39	4	0	18	40	8	193	0
4:15 PM	0	12	9	11	0	0	11	7	0	13	34	1	0	22	44	15	179	0
4:30 PM	0	7	18	10	0	0	9	12	0	11	24	1	0	26	44	8	170	0
4:45 PM	0	10	19	11	0	4	9	14	0	8	32	3	0	22	31	10	173	715
5:00 PM	**0**	**21**	**25**	**11**	**0**	**1**	**10**	**10**	**0**	**24**	**31**	**4**	**0**	**26**	**36**	**7**	**206**	728
5:15 PM	**0**	**6**	**15**	**12**	**0**	**2**	**14**	**12**	**0**	**16**	**37**	**2**	**0**	**27**	**42**	**2**	**187**	736
5:30 PM	**0**	**6**	**14**	**17**	**0**	**1**	**17**	**13**	**0**	**17**	**28**	**0**	**0**	**26**	**43**	**13**	**195**	761
5:45 PM	**0**	**11**	**12**	**12**	**0**	**0**	**13**	**11**	**0**	**11**	**32**	**4**	**0**	**20**	**45**	**9**	**180**	**768**
Count Total	0	84	127	93	0	10	95	97	0	117	257	19	0	187	325	72	1,483	0
Peak Hour	**0**	**44**	**66**	**52**	**0**	**4**	**54**	**46**	**0**	**68**	**128**	**10**	**0**	**99**	**166**	**31**	**768**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

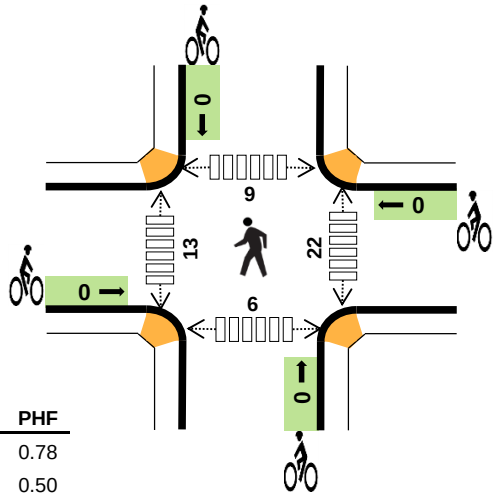
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	2	*4*	0	0	0	1	*1*	1	2	6	2	*11*
4:15 PM	0	0	0	3	*3*	0	0	0	0	*0*	0	3	1	1	*5*
4:30 PM	0	0	0	1	*1*	0	0	0	0	*0*	3	5	4	0	*12*
4:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	10	9	11	5	*35*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**2**	***3***	**4**	**8**	**4**	**1**	*17*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***	**54**	**6**	**1**	**1**	*62*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**78**	**5**	**6**	**2**	*91*
5:45 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**9**	**2**	**1**	**0**	***12***
Count Total	1	1	2	7	*11*	0	0	2	3	*5*	159	40	34	12	*245*
Peak Hour	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**2**	**2**	***4***	**145**	**21**	**12**	**4**	***182***

78TH AVE SE
SE 29TH ST

Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.0%	0.78
WB	0.0%	0.50
NB	0.8%	0.89
SB	0.9%	0.92
TOTAL	0.6%	0.93



Two-Hour Count Summaries

Interval Start	SE 29TH ST				BASKIN ROBBINS DWY				78TH AVE SE				78TH AVE SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	9	0	23	0	0	0	1	0	12	50	0	0	0	33	19	147	0
4:15 PM	0	17	0	13	0	0	0	0	0	5	44	0	0	0	46	12	137	0
4:30 PM	**0**	**7**	**0**	**37**	**0**	**0**	**0**	**0**	**1**	**13**	**56**	**0**	**0**	**0**	**48**	**9**	**171**	0
4:45 PM	**0**	**13**	**0**	**30**	**0**	**1**	**0**	**0**	**0**	**14**	**59**	**0**	**0**	**1**	**39**	**15**	**172**	627
5:00 PM	**0**	**26**	**0**	**34**	**0**	**1**	**1**	**0**	**0**	**13**	**44**	**1**	**0**	**1**	**43**	**14**	**178**	658
5:15 PM	**0**	**19**	**0**	**22**	**0**	**1**	**0**	**0**	**0**	**13**	**44**	**1**	**0**	**1**	**31**	**12**	**144**	**665**
5:30 PM	0	14	0	23	0	0	2	0	0	17	37	0	0	0	33	12	138	632
5:45 PM	0	14	0	22	0	0	0	0	0	20	45	0	0	3	44	7	155	615
Count Total	0	119	0	204	0	3	3	1	1	107	379	2	0	6	317	100	1,242	0
Peak Hour	**0**	**65**	**0**	**123**	**0**	**3**	**1**	**0**	**1**	**53**	**203**	**2**	**0**	**3**	**161**	**50**	**665**	**0**

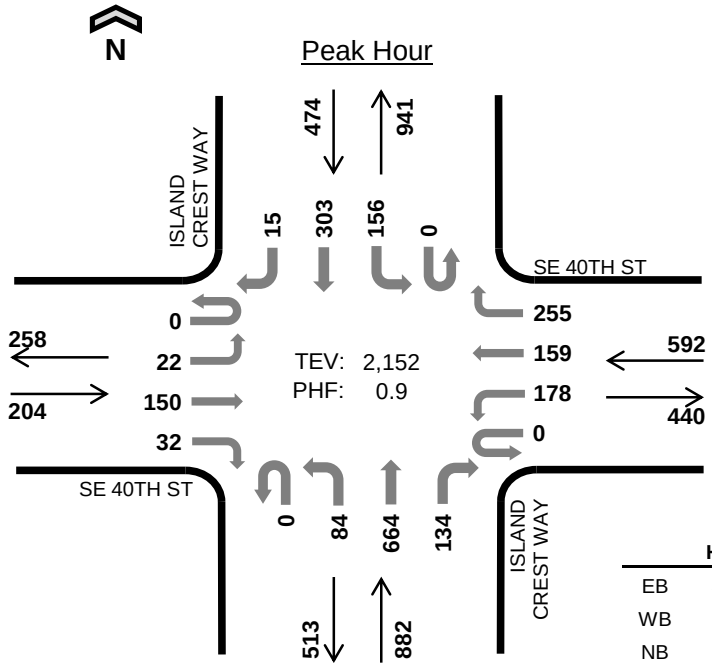
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

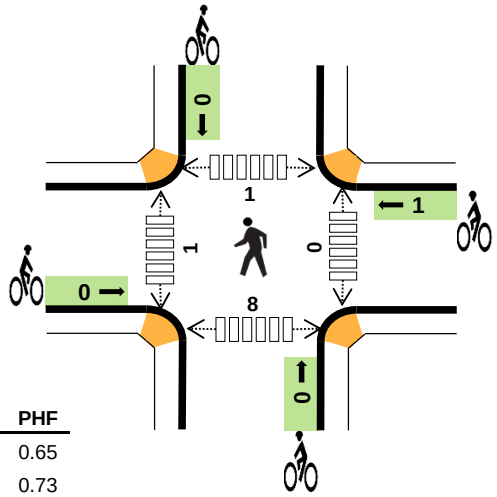
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	1	1	*3*	0	0	0	0	*0*	5	5	6	0	*16*
4:15 PM	0	0	2	1	*3*	0	0	0	0	*0*	5	4	3	1	*13*
4:30 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**11**	**1**	**2**	**1**	*15*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**5**	**2**	**6**	**1**	*14*
5:00 PM	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**4**	**1**	**4**	*10*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**5**	**6**	**0**	**0**	***11***
5:30 PM	0	0	1	1	*2*	0	0	0	0	*0*	10	6	4	3	*23*
5:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	6	10	3	1	*20*
Count Total	1	0	6	6	*13*	0	0	0	0	*0*	48	38	25	11	*122*
Peak Hour	**0**	**0**	**2**	**2**	***4***	**0**	**0**	**0**	**0**	***0***	**22**	**13**	**9**	**6**	***50***

Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

ISLAND CREST WAY
SE 40TH ST

Date: Tue, Mar 27, 2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	4.4%	0.65
WB	5.4%	0.73
NB	1.5%	0.91
SB	4.9%	0.88
TOTAL	3.6%	0.90

Two-Hour Count Summaries

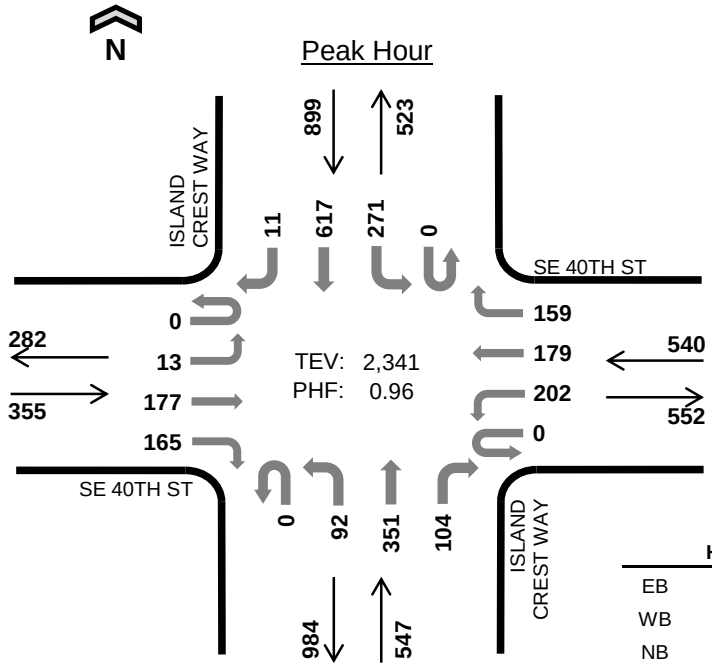
Interval Start	SE 40TH ST Eastbound				SE 40TH ST Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	11	6	0	27	19	33	0	13	116	12	0	22	67	6	333	0
7:15 AM	0	6	19	4	0	32	16	35	0	16	162	19	0	32	65	1	407	0
7:30 AM	**0**	**1**	**55**	**4**	**0**	**29**	**30**	**50**	**0**	**13**	**188**	**40**	**0**	**65**	**59**	**2**	**536**	0
7:45 AM	**0**	**10**	**59**	**9**	**0**	**59**	**44**	**60**	**0**	**14**	**135**	**25**	**0**	**44**	**87**	**3**	**549**	1,825
8:00 AM	**0**	**4**	**20**	**14**	**0**	**61**	**55**	**87**	**0**	**34**	**157**	**37**	**0**	**30**	**92**	**5**	**596**	2,088
8:15 AM	**0**	**7**	**16**	**5**	**0**	**29**	**30**	**58**	**0**	**23**	**184**	**32**	**0**	**17**	**65**	**5**	**471**	**2,152**
8:30 AM	0	4	19	9	0	36	35	49	0	18	154	23	0	30	55	1	433	2,049
8:45 AM	0	11	30	12	0	43	32	59	0	22	134	32	0	25	68	5	473	1,973
Count Total	0	44	229	63	0	316	261	431	0	153	1,230	220	0	265	558	28	3,798	0
Peak Hour	**0**	**22**	**150**	**32**	**0**	**178**	**159**	**255**	**0**	**84**	**664**	**134**	**0**	**156**	**303**	**15**	**2,152**	**0**

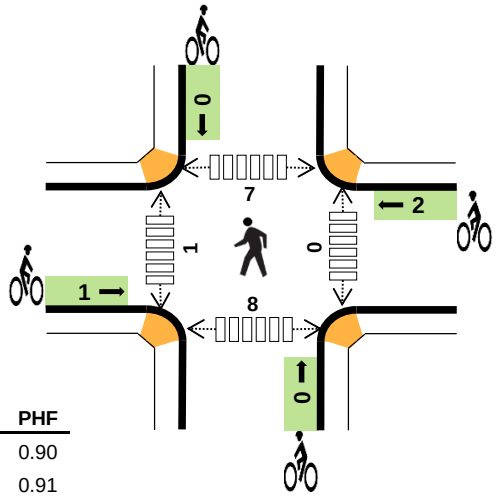
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	12	1	3	*17*	0	0	0	0	*0*	0	0	0	1	*1*
7:15 AM	0	3	5	5	*13*	0	1	0	0	*1*	0	0	0	0	*0*
7:30 AM	**2**	**10**	**2**	**4**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
7:45 AM	**2**	**8**	**2**	**7**	***19***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**6**	*6*
8:00 AM	**5**	**9**	**3**	**7**	***24***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
8:15 AM	**0**	**5**	**6**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***
8:30 AM	3	12	6	6	*27*	0	0	0	0	*0*	0	0	0	4	*4*
8:45 AM	2	8	2	6	*18*	0	0	0	0	*0*	0	0	0	5	*5*
Count Total	15	67	27	43	*152*	0	2	0	0	*2*	0	1	1	18	*20*
Peak Hour	**9**	**32**	**13**	**23**	***77***	**0**	**1**	**0**	**0**	***1***	**0**	**1**	**1**	**8**	***10***

ISLAND CREST WAY
SE 40TH ST

Date: Tue, Mar 27, 2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.6%	0.90
WB	0.9%	0.91
NB	0.7%	0.89
SB	0.4%	0.90
TOTAL	0.6%	0.96

Two-Hour Count Summaries

Interval Start	SE 40TH ST Eastbound				SE 40TH ST Westbound				ISLAND CREST WAY Northbound				ISLAND CREST WAY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	10	40	31	0	43	34	51	0	25	143	33	0	47	140	2	599	0
4:15 PM	0	6	27	35	0	36	34	37	0	28	112	31	0	61	138	1	546	0
4:30 PM	0	3	38	35	0	63	43	43	0	27	104	27	0	46	116	1	546	0
4:45 PM	0	4	31	38	0	47	40	22	0	30	94	13	0	66	148	4	537	2,228
5:00 PM	**0**	**2**	**48**	**49**	**0**	**45**	**43**	**35**	**0**	**22**	**103**	**28**	**0**	**59**	**129**	**4**	**567**	2,196
5:15 PM	**0**	**8**	**49**	**37**	**0**	**50**	**50**	**36**	**0**	**21**	**91**	**33**	**0**	**67**	**154**	**2**	**598**	2,248
5:30 PM	**0**	**2**	**43**	**48**	**0**	**51**	**46**	**51**	**0**	**20**	**91**	**22**	**0**	**73**	**158**	**2**	**607**	2,309
5:45 PM	**0**	**1**	**37**	**31**	**0**	**56**	**40**	**37**	**0**	**29**	**66**	**21**	**0**	**72**	**176**	**3**	**569**	**2,341**
Count Total	0	36	313	304	0	391	330	312	0	202	804	208	0	491	1,159	19	4,569	0
Peak Hour	**0**	**13**	**177**	**165**	**0**	**202**	**179**	**159**	**0**	**92**	**351**	**104**	**0**	**271**	**617**	**11**	**2,341**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	3	5	5	*13*	1	0	0	0	*1*	0	0	1	3	*4*
4:15 PM	1	1	4	7	*13*	0	0	0	0	*0*	0	0	1	4	*5*
4:30 PM	2	3	1	3	*9*	0	0	0	0	*0*	0	0	0	4	*4*
4:45 PM	1	0	1	3	*5*	0	0	0	0	*0*	1	0	0	0	*1*
5:00 PM	**1**	**2**	**2**	**0**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
5:15 PM	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**2**	*5*
5:30 PM	**1**	**2**	**2**	**0**	***5***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**1**	**1**	*2*
5:45 PM	**0**	**1**	**0**	**2**	***3***	**0**	**2**	**0**	**0**	***2***	**0**	**1**	**1**	**5**	***7***
Count Total	6	12	15	22	*55*	2	2	0	0	*4*	1	1	9	19	*30*
Peak Hour	**2**	**5**	**4**	**4**	***15***	**1**	**2**	**0**	**0**	***3***	**0**	**1**	**7**	**8**	***16***

Appendix B:LOS Definitions

Highway Capacity Manual 2010/6th Edition

Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control as well as provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Control delay is a complex measure based on many variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010* and 6th Edition (Transportation Research Board, 2010 and 2016, respectively).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F[1]	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010 and 6th Edition*, Transportation Research Board, 2010 and 2016, respectively.

1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop and two-way stop control. All-way stop control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection or by approach. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is because major-street through vehicles are assumed to experience zero delay, a weighted average of all movements results in very low overall average delay, and this calculated low delay could mask deficiencies of minor movements. Table 2 shows LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F[1]	>50

Source: *Highway Capacity Manual 2010 and 6th Edition*, Transportation Research Board, 2010 and 2016, respectively.

1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Appendix C:LOS Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	130	500	40	170	10	130	30	5	5
Future Volume (veh/h)	0	0	0	130	500	40	170	10	130	30	5	5
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	0.99		1.00	0.99		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1841	1841	1841	1826	1826	1826	1781	1781	1781
Adj Flow Rate, veh/h				137	526	42	179	11	0	32	5	5
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				4	4	4	5	5	5	8	8	8
Cap, veh/h				196	752	808	492	381		486	169	169
Arrive On Green				0.52	0.52	0.52	0.21	0.21	0.00	0.21	0.21	0.21
Sat Flow, veh/h				376	1445	1554	1352	1826	0	1318	811	811
Grp Volume(v), veh/h				663	0	42	179	11	0	32	0	10
Grp Sat Flow(s),veh/h/ln				1822	0	1554	1352	1826	0	1318	0	1622
Q Serve(g_s), s				9.1	0.0	0.4	4.0	0.2	0.0	0.7	0.0	0.2
Cycle Q Clear(g_c), s				9.1	0.0	0.4	4.2	0.2	0.0	0.8	0.0	0.2
Prop In Lane				0.21		1.00	1.00		0.00	1.00		0.50
Lane Grp Cap(c), veh/h				948	0	808	492	381		486	0	338
V/C Ratio(X)				0.70	0.00	0.05	0.36	0.03		0.07	0.00	0.03
Avail Cap(c_a), veh/h				3101	0	2645	1208	1348		1183	0	1197
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				6.0	0.0	3.9	12.1	10.5	0.0	10.8	0.0	10.5
Incr Delay (d2), s/veh				0.9	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.1	0.0	0.1	1.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	0.0	4.0	12.6	10.5	0.0	10.8	0.0	10.5
LnGrp LOS				A	A	A	B	B		B	A	B
Approach Vol, veh/h					705			190	A		42	
Approach Delay, s/veh					6.8			12.5			10.8	
Approach LOS					A			B			B	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	11.4			11.4		21.8						
Change Period (Y+Rc), s	4.5			4.5		4.5						
Max Green Setting (Gmax), s	24.5			24.5		56.5						
Max Q Clear Time (g_c+I1), s	6.2			2.8		11.1						
Green Ext Time (p_c), s	0.5			0.1		6.0						

Intersection Summary		
HCM 6th Ctrl Delay	8.1	
HCM 6th LOS	A	

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	165	10	115	535	100	70
Future Volume (veh/h)	165	10	115	535	100	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1761	1761	1834	1834	1804	1804
Adj Flow Rate, veh/h	174	11	121	563	105	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	7	7	9	9
Cap, veh/h	833	53	829	932	200	178
Arrive On Green	0.51	0.51	0.51	0.51	0.12	0.12
Sat Flow, veh/h	1639	104	1176	1834	1718	1529
Grp Volume(v), veh/h	0	185	121	563	105	74
Grp Sat Flow(s),veh/h/ln	0	1742	1176	1834	1718	1529
Q Serve(g_s), s	0.0	1.4	1.5	5.2	1.4	1.1
Cycle Q Clear(g_c), s	0.0	1.4	2.9	5.2	1.4	1.1
Prop In Lane		0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	885	829	932	200	178
V/C Ratio(X)	0.00	0.21	0.15	0.60	0.53	0.42
Avail Cap(c_a), veh/h	0	2944	2218	3100	1828	1627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	3.2	4.0	4.2	10.0	9.8
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.6	2.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.6	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.4	4.1	4.8	12.1	11.4
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	185			684	179	
Approach Delay, s/veh	3.4			4.7	11.8	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	7.3	16.7	16.7
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	40.5	40.5
Max Q Clear Time (g_c+I1), s	3.4	3.4	7.2
Green Ext Time (p_c), s	0.5	1.2	5.0

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

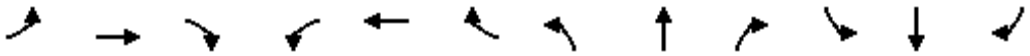
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	165	0	145	135	0
Future Vol, veh/h	50	165	0	145	135	0
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	6	6	7	7
Mvmt Flow	60	196	0	173	161	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	334	162	-	0	-	0
Stage 1	161	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Critical Hdwy	6.47	6.27	-	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	-	-	-	-
Pot Cap-1 Maneuver	651	870	0	-	-	0
Stage 1	856	-	0	-	-	0
Stage 2	845	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	651	869	-	-	-	-
Mov Cap-2 Maneuver	685	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	845	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	685	869	-
HCM Lane V/C Ratio	-	0.087	0.226	-
HCM Control Delay (s)	-	10.8	10.3	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.3	0.9	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	245	85	60	225	45	95	85	45	90	140	65
Future Volume (veh/h)	15	245	85	60	225	45	95	85	45	90	140	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.97	0.97		0.94	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	16	258	89	63	237	47	100	89	47	95	147	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	5	5	5
Cap, veh/h	394	429	148	342	493	98	433	271	143	490	279	129
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.06	0.24	0.24	0.06	0.24	0.24
Sat Flow, veh/h	1080	1311	452	1021	1508	299	1753	1108	585	1739	1156	535
Grp Volume(v), veh/h	16	0	347	63	0	284	100	0	136	95	0	215
Grp Sat Flow(s),veh/h/ln	1080	0	1763	1021	0	1807	1753	0	1693	1739	0	1691
Q Serve(g_s), s	0.5	0.0	6.7	2.2	0.0	5.1	1.7	0.0	2.7	1.6	0.0	4.5
Cycle Q Clear(g_c), s	5.6	0.0	6.7	9.0	0.0	5.1	1.7	0.0	2.7	1.6	0.0	4.5
Prop In Lane	1.00		0.26	1.00		0.17	1.00		0.35	1.00		0.32
Lane Grp Cap(c), veh/h	394	0	576	342	0	591	433	0	414	490	0	409
V/C Ratio(X)	0.04	0.00	0.60	0.18	0.00	0.48	0.23	0.00	0.33	0.19	0.00	0.53
Avail Cap(c_a), veh/h	917	0	1430	837	0	1465	624	0	832	685	0	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	11.5	15.2	0.0	10.9	10.7	0.0	12.6	10.6	0.0	13.4
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.3	0.0	0.6	0.3	0.0	0.5	0.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.3	0.5	0.0	1.8	0.6	0.0	0.9	0.5	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	12.5	15.5	0.0	11.5	11.0	0.0	13.1	10.8	0.0	14.5
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		363			347			236			310	
Approach Delay, s/veh		12.5			12.3			12.2			13.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.3	7.6	14.8		18.3	7.4	15.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		8.7	3.7	6.5		11.0	3.6	4.7				
Green Ext Time (p_c), s		2.4	0.1	1.0		2.1	0.1	0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	360	40	0	0	0	135	245	405	65	200	180
Future Volume (veh/h)	15	360	40	0	0	0	135	245	405	65	200	180
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1879	1879	1879				1949	1949	1949	1790	1790	1790
Adj Flow Rate, veh/h	15	367	41				138	250	0	66	204	184
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4				2	2	2	7	7	7
Cap, veh/h	572	531	59				456	485		410	364	308
Arrive On Green	0.32	0.32	0.32				0.09	0.25	0.00	0.04	0.20	0.20
Sat Flow, veh/h	1790	1659	185				1856	1949	1651	1705	1790	1517
Grp Volume(v), veh/h	15	0	408				138	250	0	66	204	184
Grp Sat Flow(s),veh/h/ln	1790	0	1845				1856	1949	1651	1705	1790	1517
Q Serve(g_s), s	0.2	0.0	7.3				2.2	4.2	0.0	1.1	3.9	4.2
Cycle Q Clear(g_c), s	0.2	0.0	7.3				2.2	4.2	0.0	1.1	3.9	4.2
Prop In Lane	1.00		0.10				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	572	0	590				456	485		410	364	308
V/C Ratio(X)	0.03	0.00	0.69				0.30	0.52		0.16	0.56	0.60
Avail Cap(c_a), veh/h	1622	0	1672				1292	2074		1256	1906	1615
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	11.3				10.6	12.3	0.0	10.2	13.6	13.7
Incr Delay (d2), s/veh	0.0	0.0	1.5				0.1	0.6	0.0	0.1	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.6				0.7	1.5	0.0	0.3	1.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.0	12.7				10.7	12.9	0.0	10.3	14.6	15.1
LnGrp LOS	A	A	B				B	B		B	B	B
Approach Vol, veh/h		423						388	A		454	
Approach Delay, s/veh		12.6						12.1			14.2	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8
Phs Duration (G+Y+Rc), s		6.2	14.0		17.7	7.9	12.3
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6
Max Green Setting (Gmax), s		20.4	40.4		34.4	20.4	40.4
Max Q Clear Time (g_c+I1), s		3.1	6.2		9.3	4.2	6.2
Green Ext Time (p_c), s		0.1	1.2		2.9	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	90	60	65	50	45	50
Future Vol, veh/h	90	60	65	50	45	50
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	1	1	8	8	3	3
Mvmt Flow	108	72	78	60	54	60
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.7	8.3	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	47%
Vol Thru, %	57%	0%	0%	53%
Vol Right, %	43%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	90	60	95
LT Vol	0	90	0	45
Through Vol	65	0	0	50
RT Vol	50	0	60	0
Lane Flow Rate	139	108	72	114
Geometry Grp	2	7	7	2
Degree of Util (X)	0.168	0.169	0.088	0.148
Departure Headway (Hd)	4.366	5.597	4.391	4.655
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	642	816	771
Service Time	2.385	3.323	2.117	2.676
HCM Lane V/C Ratio	0.169	0.168	0.088	0.148
HCM Control Delay	8.3	9.5	7.5	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.6	0.3	0.5

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	105	10	75	135	85	15	70	45	60	60	50
Future Vol, veh/h	35	105	10	75	135	85	15	70	45	60	60	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	2	2	2	1	1	1	1	1	1
Mvmt Flow	37	112	11	80	144	90	16	74	48	64	64	53
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.9	10.9	9.9	9.8
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	36%	0%	100%	0%
Vol Thru, %	0%	61%	0%	91%	64%	0%	0%	55%
Vol Right, %	0%	39%	0%	9%	0%	100%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	115	35	115	210	85	60	110
LT Vol	15	0	35	0	75	0	60	0
Through Vol	0	70	0	105	135	0	0	60
RT Vol	0	45	0	10	0	85	0	50
Lane Flow Rate	16	122	37	122	223	90	64	117
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.029	0.198	0.066	0.198	0.365	0.125	0.116	0.186
Departure Headway (Hd)	6.607	5.823	6.379	5.812	5.874	4.988	6.536	5.708
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	543	617	563	618	614	720	549	630
Service Time	4.338	3.554	4.107	3.539	3.598	2.711	4.266	3.438
HCM Lane V/C Ratio	0.029	0.198	0.066	0.197	0.363	0.125	0.117	0.186
HCM Control Delay	9.5	10	9.6	10	11.9	8.4	10.1	9.7
HCM Lane LOS	A	A	A	A	B	A	B	A
HCM 95th-tile Q	0.1	0.7	0.2	0.7	1.7	0.4	0.4	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	20	80	5	20	50	240	665	5	15	145	80
Future Volume (veh/h)	85	20	80	5	20	50	240	665	5	15	145	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1803	1803	1803	1967	1967	1967	1964	1964	1964	1761	1761	1761
Adj Flow Rate, veh/h	93	22	88	5	22	55	264	731	5	16	159	88
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	9	9	9
Cap, veh/h	185	44	196	9	39	97	531	1322	9	316	223	124
Arrive On Green	0.13	0.13	0.13	0.08	0.08	0.08	0.15	0.35	0.35	0.01	0.21	0.21
Sat Flow, veh/h	1401	331	1487	104	457	1142	1870	3798	26	1677	1065	590
Grp Volume(v), veh/h	115	0	88	82	0	0	264	359	377	16	0	247
Grp Sat Flow(s),veh/h/ln	1732	0	1487	1702	0	0	1870	1865	1959	1677	0	1655
Q Serve(g_s), s	2.7	0.0	2.4	2.0	0.0	0.0	4.6	6.8	6.8	0.3	0.0	6.1
Cycle Q Clear(g_c), s	2.7	0.0	2.4	2.0	0.0	0.0	4.6	6.8	6.8	0.3	0.0	6.1
Prop In Lane	0.81		1.00	0.06		0.67	1.00		0.01	1.00		0.36
Lane Grp Cap(c), veh/h	228	0	196	145	0	0	531	649	682	316	0	347
V/C Ratio(X)	0.50	0.00	0.45	0.57	0.00	0.00	0.50	0.55	0.55	0.05	0.00	0.71
Avail Cap(c_a), veh/h	1209	0	1037	993	0	0	912	2134	2241	890	0	1892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	17.5	19.2	0.0	0.0	11.0	11.5	11.5	9.6	0.0	16.1
Incr Delay (d2), s/veh	1.3	0.0	1.2	2.6	0.0	0.0	0.3	0.7	0.7	0.0	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.8	0.8	0.0	0.0	1.5	2.3	2.4	0.1	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	18.7	21.8	0.0	0.0	11.2	12.2	12.2	9.6	0.0	18.8
LnGrp LOS	B	A	B	C	A	A	B	B	B	A	A	B
Approach Vol, veh/h		203			82			1000			263	
Approach Delay, s/veh		18.8			21.8			12.0			18.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.2	5.0	20.2	10.3	11.1	14.2
Change Period (Y+Rc), s	4.5	4.5	5.0	4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	15.5	50.0	30.5	15.5	50.0
Max Q Clear Time (g_c+I1), s	4.0	2.3	8.8	4.7	6.6	8.1
Green Ext Time (p_c), s	0.3	0.0	5.0	0.8	0.3	1.6

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	30	10	5	25	30	20	105	5	45	80	25
Future Vol, veh/h	25	30	10	5	25	30	20	105	5	45	80	25
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	5	5	5
Mvmt Flow	32	38	13	6	32	38	25	133	6	57	101	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.6	8.2	8.9	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	38%	8%	100%	0%
Vol Thru, %	0%	95%	46%	42%	0%	76%
Vol Right, %	0%	5%	15%	50%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	110	65	60	45	105
LT Vol	20	0	25	5	45	0
Through Vol	0	105	30	25	0	80
RT Vol	0	5	10	30	0	25
Lane Flow Rate	25	139	82	76	57	133
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.039	0.195	0.112	0.098	0.089	0.183
Departure Headway (Hd)	5.567	5.032	4.912	4.657	5.625	4.955
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	643	713	729	768	637	723
Service Time	3.303	2.768	2.948	2.694	3.36	2.689
HCM Lane V/C Ratio	0.039	0.195	0.112	0.099	0.089	0.184
HCM Control Delay	8.5	9	8.6	8.2	8.9	8.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.4	0.3	0.3	0.7

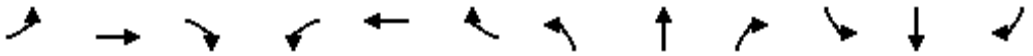
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	45	20	110	95	30
Future Vol, veh/h	25	45	20	110	95	30
Conflicting Peds, #/hr	6	6	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	7	7	4	4
Mvmt Flow	33	60	27	147	127	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	360	159	173	0	-	0
Stage 1	153	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.17	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.263	-	-	-
Pot Cap-1 Maneuver	639	886	1374	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	877	1367	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1367	-	763	-	-
HCM Lane V/C Ratio	0.02	-	0.122	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	155	35	180	160	260	85	675	135	160	310	15
Future Volume (veh/h)	20	155	35	180	160	260	85	675	135	160	310	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	22	172	39	189	193	289	94	750	150	178	344	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	5	5	5	2	2	2	5	5	5
Cap, veh/h	212	223	287	321	337	461	116	1285	257	201	1636	81
Arrive On Green	0.12	0.12	0.12	0.06	0.06	0.06	0.06	0.44	0.44	0.12	0.49	0.49
Sat Flow, veh/h	1753	1841	1529	1739	1826	1527	1781	2950	590	1739	3365	166
Grp Volume(v), veh/h	22	172	39	189	193	289	94	452	448	178	177	184
Grp Sat Flow(s),veh/h/ln	1753	1841	1529	1739	1826	1527	1781	1777	1763	1739	1735	1796
Q Serve(g_s), s	1.6	12.7	3.0	14.8	14.4	22.8	7.3	26.9	26.9	14.1	8.2	8.2
Cycle Q Clear(g_c), s	1.6	12.7	3.0	14.8	14.4	22.8	7.3	26.9	26.9	14.1	8.2	8.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.09
Lane Grp Cap(c), veh/h	212	223	287	321	337	461	116	774	768	201	844	873
V/C Ratio(X)	0.10	0.77	0.14	0.59	0.57	0.63	0.81	0.58	0.58	0.89	0.21	0.21
Avail Cap(c_a), veh/h	351	368	407	373	391	506	191	774	768	248	844	873
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	59.6	47.6	60.6	60.4	48.6	64.6	29.9	29.9	61.0	20.6	20.6
Incr Delay (d2), s/veh	0.1	2.1	0.1	0.7	0.5	1.3	5.1	3.2	3.2	22.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.1	1.2	7.0	7.2	9.5	3.5	12.1	12.0	7.5	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	61.8	47.7	61.2	60.9	49.9	69.7	33.1	33.1	83.9	21.1	21.1
LnGrp LOS	D	E	D	E	E	D	E	C	C	F	C	C
Approach Vol, veh/h		233			671			994			539	
Approach Delay, s/veh		58.8			56.3			36.6			41.9	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.2	66.0		30.9	14.1	73.1		22.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	42.0		30.0	15.0	47.0		28.0				
Max Q Clear Time (g_c+I1), s	16.1	28.9		24.8	9.3	10.2		14.7				
Green Ext Time (p_c), s	0.1	3.2		0.9	0.0	1.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		45.3	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

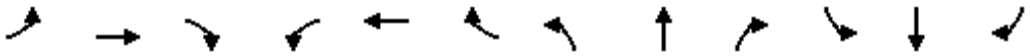
Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	270	0	140	140	0
Future Vol, veh/h	80	270	0	140	140	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	2	2	3	3
Mvmt Flow	90	303	0	157	157	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	314	157	-	0	-	0
Stage 1	157	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	-	-
Pot Cap-1 Maneuver	673	881	0	-	-	0
Stage 1	864	-	0	-	-	0
Stage 2	864	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	673	881	-	-	-	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	864	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	701	881	-
HCM Lane V/C Ratio	-	0.128	0.344	-
HCM Control Delay (s)	-	10.9	11.2	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.4	1.5	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	295	125	45	230	55	130	80	75	125	205	65
Future Volume (veh/h)	35	295	125	45	230	55	130	80	75	125	205	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.96	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	38	321	136	49	250	60	141	87	82	136	223	71
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
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	390	445	189	277	523	125	405	215	203	494	330	105
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.09	0.25	0.25	0.08	0.24	0.24
Sat Flow, veh/h	1062	1247	528	936	1465	352	1795	876	826	1795	1357	432
Grp Volume(v), veh/h	38	0	457	49	0	310	141	0	169	136	0	294
Grp Sat Flow(s),veh/h/ln	1062	0	1776	936	0	1817	1795	0	1702	1795	0	1789
Q Serve(g_s), s	1.4	0.0	10.6	2.3	0.0	6.3	2.7	0.0	4.0	2.6	0.0	7.1
Cycle Q Clear(g_c), s	7.7	0.0	10.6	12.9	0.0	6.3	2.7	0.0	4.0	2.6	0.0	7.1
Prop In Lane	1.00		0.30	1.00		0.19	1.00		0.49	1.00		0.24
Lane Grp Cap(c), veh/h	390	0	634	277	0	648	405	0	418	494	0	435
V/C Ratio(X)	0.10	0.00	0.72	0.18	0.00	0.48	0.35	0.00	0.40	0.28	0.00	0.68
Avail Cap(c_a), veh/h	747	0	1231	591	0	1260	516	0	715	610	0	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	13.3	18.8	0.0	11.9	12.3	0.0	15.0	11.9	0.0	16.3
Incr Delay (d2), s/veh	0.1	0.0	1.6	0.3	0.0	0.5	0.5	0.0	0.6	0.3	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.9	0.5	0.0	2.3	1.0	0.0	1.4	1.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	0.0	14.8	19.1	0.0	12.4	12.8	0.0	15.7	12.2	0.0	18.2
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		495			359			310			430	
Approach Delay, s/veh		14.8			13.3			14.4			16.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	9.1	16.6		22.0	8.9	16.7				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		12.6	4.7	9.1		14.9	4.6	6.0				
Green Ext Time (p_c), s		3.3	0.1	1.3		2.1	0.1	0.8				

Intersection Summary												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	340	40	0	0	0	110	125	370	90	300	190
Future Volume (veh/h)	15	340	40	0	0	0	110	125	370	90	300	190
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1924	1924	1924				1964	1964	1964	1879	1879	1879
Adj Flow Rate, veh/h	16	366	43				118	134	0	97	323	204
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1				1	1	1	1	1	1
Cap, veh/h	557	512	60				412	544		563	498	411
Arrive On Green	0.30	0.30	0.30				0.07	0.28	0.00	0.06	0.27	0.27
Sat Flow, veh/h	1833	1684	198				1870	1964	1664	1790	1879	1550
Grp Volume(v), veh/h	16	0	409				118	134	0	97	323	204
Grp Sat Flow(s),veh/h/ln	1833	0	1882				1870	1964	1664	1790	1879	1550
Q Serve(g_s), s	0.3	0.0	8.0				1.8	2.2	0.0	1.6	6.3	4.6
Cycle Q Clear(g_c), s	0.3	0.0	8.0				1.8	2.2	0.0	1.6	6.3	4.6
Prop In Lane	1.00		0.11				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	557	0	572				412	544		563	498	411
V/C Ratio(X)	0.03	0.00	0.72				0.29	0.25		0.17	0.65	0.50
Avail Cap(c_a), veh/h	1176	0	1207				1115	1451		1257	1388	1145
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	12.7				10.2	11.5	0.0	9.6	13.4	12.8
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.1	0.2	0.0	0.1	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.0				0.6	0.8	0.0	0.5	2.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	14.4				10.4	11.7	0.0	9.7	14.5	13.5
LnGrp LOS	B	A	B				B	B		A	B	B
Approach Vol, veh/h		425						252	A		624	
Approach Delay, s/veh		14.3						11.1			13.4	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8
Phs Duration (G+Y+Rc), s		7.1	16.0		18.1	7.5	15.5
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6
Max Green Setting (Gmax), s		18.4	30.4		26.4	18.4	30.4
Max Q Clear Time (g_c+I1), s		3.6	4.2		10.0	3.8	8.3
Green Ext Time (p_c), s		0.1	0.6		2.5	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	120	120	135	90	110	90
Future Vol, veh/h	120	120	135	90	110	90
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	129	129	145	97	118	97
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.6	9.8	10.2
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	55%
Vol Thru, %	60%	0%	0%	45%
Vol Right, %	40%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	120	120	200
LT Vol	0	120	0	110
Through Vol	135	0	0	90
RT Vol	90	0	120	0
Lane Flow Rate	242	129	129	215
Geometry Grp	2	7	7	2
Degree of Util (X)	0.311	0.218	0.175	0.298
Departure Headway (Hd)	4.624	6.081	4.871	4.986
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	587	730	716
Service Time	2.679	3.854	2.642	3.045
HCM Lane V/C Ratio	0.313	0.22	0.177	0.3
HCM Control Delay	9.8	10.6	8.7	10.2
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	1.3	0.8	0.6	1.2

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	200	30	65	155	80	35	100	95	75	80	90
Future Vol, veh/h	50	200	30	65	155	80	35	100	95	75	80	90
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	1	1	1	3	3	3	3	3	3
Mvmt Flow	54	217	33	71	168	87	38	109	103	82	87	98
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	14.5	14	13.5	12.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	30%	0%	100%	0%
Vol Thru, %	0%	51%	0%	87%	70%	0%	0%	47%
Vol Right, %	0%	49%	0%	13%	0%	100%	0%	53%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	195	50	230	220	80	75	170
LT Vol	35	0	50	0	65	0	75	0
Through Vol	0	100	0	200	155	0	0	80
RT Vol	0	95	0	30	0	80	0	90
Lane Flow Rate	38	212	54	250	239	87	82	185
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.08	0.397	0.111	0.466	0.462	0.147	0.171	0.343
Departure Headway (Hd)	7.597	6.737	7.32	6.716	6.951	6.086	7.571	6.681
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	472	534	490	537	519	590	474	538
Service Time	5.337	4.477	5.059	4.455	4.689	3.823	5.312	4.421
HCM Lane V/C Ratio	0.081	0.397	0.11	0.466	0.461	0.147	0.173	0.344
HCM Control Delay	11	13.9	11	15.2	15.5	9.9	11.9	12.9
HCM Lane LOS	B	B	B	C	C	A	B	B
HCM 95th-tile Q	0.3	1.9	0.4	2.4	2.4	0.5	0.6	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	30	180	0	30	35	175	390	0	25	240	80
Future Volume (veh/h)	170	30	180	0	30	35	175	390	0	25	240	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2027	2027	2027	1964	1964	1964	1864	1864	1864
Adj Flow Rate, veh/h	177	31	188	0	31	36	182	406	0	26	250	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	306	54	308	0	70	81	420	1254	0	421	335	111
Arrive On Green	0.20	0.20	0.20	0.00	0.08	0.08	0.10	0.34	0.00	0.02	0.25	0.25
Sat Flow, veh/h	1508	264	1519	0	834	968	1870	3829	0	1776	1339	445
Grp Volume(v), veh/h	208	0	188	0	0	67	182	406	0	26	0	333
Grp Sat Flow(s),veh/h/ln	1772	0	1519	0	0	1802	1870	1865	0	1776	0	1784
Q Serve(g_s), s	5.5	0.0	5.8	0.0	0.0	1.8	3.6	4.2	0.0	0.5	0.0	8.9
Cycle Q Clear(g_c), s	5.5	0.0	5.8	0.0	0.0	1.8	3.6	4.2	0.0	0.5	0.0	8.9
Prop In Lane	0.85		1.00	0.00		0.54	1.00		0.00	1.00		0.25
Lane Grp Cap(c), veh/h	360	0	308	0	0	151	420	1254	0	421	0	446
V/C Ratio(X)	0.58	0.00	0.61	0.00	0.00	0.44	0.43	0.32	0.00	0.06	0.00	0.75
Avail Cap(c_a), veh/h	1049	0	900	0	0	892	970	3260	0	1095	0	1559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	18.7	0.0	0.0	22.5	12.8	12.7	0.0	11.1	0.0	17.8
Incr Delay (d2), s/veh	1.1	0.0	1.5	0.0	0.0	1.5	0.3	0.1	0.0	0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.9	0.0	0.0	0.8	1.3	1.5	0.0	0.2	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	0.0	20.1	0.0	0.0	24.0	13.1	12.9	0.0	11.1	0.0	20.3
LnGrp LOS	B	A	C	A	A	C	B	B	A	B	A	C
Approach Vol, veh/h		396			67			588			359	
Approach Delay, s/veh		19.9			24.0			12.9			19.6	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4		6	7	8
Phs Duration (G+Y+Rc), s	8.8	5.4	22.3		15.0	9.9	17.9
Change Period (Y+Rc), s	4.5	4.5	5.0		4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	20.5	45.0		30.5	20.5	45.0
Max Q Clear Time (g_c+I1), s	3.8	2.5	6.2		7.8	5.6	10.9
Green Ext Time (p_c), s	0.2	0.0	2.8		1.5	0.2	2.1

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	65	55	5	55	45	70	130	10	100	170	30
Future Vol, veh/h	45	65	55	5	55	45	70	130	10	100	170	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	0	0	0
Mvmt Flow	48	70	59	5	59	48	75	140	11	108	183	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.3	9.5	10.1	10.7
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	27%	5%	100%	0%
Vol Thru, %	0%	93%	39%	52%	0%	85%
Vol Right, %	0%	7%	33%	43%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	140	165	105	100	200
LT Vol	70	0	45	5	100	0
Through Vol	0	130	65	55	0	170
RT Vol	0	10	55	45	0	30
Lane Flow Rate	75	151	177	113	108	215
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.131	0.239	0.264	0.169	0.183	0.329
Departure Headway (Hd)	6.262	5.705	5.365	5.403	6.126	5.514
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	574	631	669	664	587	654
Service Time	3.988	3.431	3.397	3.438	3.85	3.238
HCM Lane V/C Ratio	0.131	0.239	0.265	0.17	0.184	0.329
HCM Control Delay	9.9	10.2	10.3	9.5	10.2	10.9
HCM Lane LOS	A	B	B	A	B	B
HCM 95th-tile Q	0.4	0.9	1.1	0.6	0.7	1.4

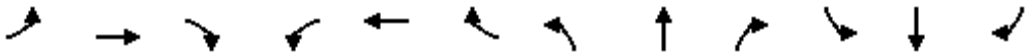
Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	125	55	205	165	50
Future Vol, veh/h	65	125	55	205	165	50
Conflicting Peds, #/hr	22	19	19	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	70	134	59	220	177	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	586	245	253	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	476	799	1318	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	435	772	1294	-	-	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1294	-	610	-	-
HCM Lane V/C Ratio	0.046	-	0.335	-	-
HCM Control Delay (s)	7.9	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	-	-



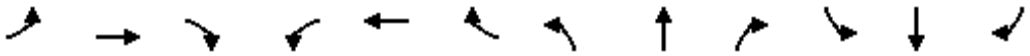
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	180	170	205	185	160	95	360	105	275	630	10
Future Volume (veh/h)	15	180	170	205	185	160	95	360	105	275	630	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	16	188	177	204	208	167	99	375	109	286	656	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	284	298	383	310	326	566	151	519	149	337	1061	16
Arrive On Green	0.16	0.16	0.16	0.17	0.17	0.17	0.08	0.19	0.19	0.19	0.29	0.29
Sat Flow, veh/h	1795	1885	1573	1795	1885	1553	1795	2744	788	1810	3639	55
Grp Volume(v), veh/h	16	188	177	204	208	167	99	243	241	286	325	341
Grp Sat Flow(s),veh/h/ln	1795	1885	1573	1795	1885	1553	1795	1791	1741	1810	1805	1890
Q Serve(g_s), s	0.5	6.4	6.5	7.2	7.0	5.3	3.6	8.7	8.9	10.4	10.6	10.6
Cycle Q Clear(g_c), s	0.5	6.4	6.5	7.2	7.0	5.3	3.6	8.7	8.9	10.4	10.6	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.03
Lane Grp Cap(c), veh/h	284	298	383	310	326	566	151	339	329	337	526	551
V/C Ratio(X)	0.06	0.63	0.46	0.66	0.64	0.29	0.66	0.72	0.73	0.85	0.62	0.62
Avail Cap(c_a), veh/h	711	747	757	922	968	1095	474	946	919	717	1191	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	26.8	22.1	26.3	26.2	15.7	30.3	25.9	26.0	26.8	20.9	20.9
Incr Delay (d2), s/veh	0.0	0.8	0.3	0.9	0.8	0.1	1.8	1.1	1.2	2.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.8	0.0	3.0	3.1	1.7	1.6	3.5	3.5	4.4	4.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	27.6	22.4	27.2	27.0	15.8	32.1	27.0	27.2	29.1	21.3	21.3
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		381			579			583			952	
Approach Delay, s/veh		25.1			23.8			27.9			23.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.7	17.9		16.8	10.7	24.9		15.8				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	27.0	36.0		35.0	18.0	45.0		27.0				
Max Q Clear Time (g_c+I1), s	12.4	10.9		9.2	5.6	12.6		8.5				
Green Ext Time (p_c), s	0.3	1.8		1.3	0.1	2.6		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		24.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	135	515	40	175	10	135	30	5	5
Future Volume (veh/h)	0	0	0	135	515	40	175	10	135	30	5	5
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	0.99		1.00	0.99		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1841	1841	1841	1826	1826	1826	1781	1781	1781
Adj Flow Rate, veh/h				142	542	42	184	11	0	32	5	5
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				4	4	4	5	5	5	8	8	8
Cap, veh/h				200	762	820	488	387		481	172	172
Arrive On Green				0.53	0.53	0.53	0.21	0.21	0.00	0.21	0.21	0.21
Sat Flow, veh/h				378	1444	1554	1352	1826	0	1318	811	811
Grp Volume(v), veh/h				684	0	42	184	11	0	32	0	10
Grp Sat Flow(s),veh/h/ln				1822	0	1554	1352	1826	0	1318	0	1622
Q Serve(g_s), s				9.8	0.0	0.5	4.3	0.2	0.0	0.7	0.0	0.2
Cycle Q Clear(g_c), s				9.8	0.0	0.5	4.5	0.2	0.0	0.8	0.0	0.2
Prop In Lane				0.21		1.00	1.00		0.00	1.00		0.50
Lane Grp Cap(c), veh/h				961	0	820	488	387		481	0	343
V/C Ratio(X)				0.71	0.00	0.05	0.38	0.03		0.07	0.00	0.03
Avail Cap(c_a), veh/h				2980	0	2542	1161	1295		1137	0	1150
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				6.2	0.0	4.0	12.6	10.8	0.0	11.1	0.0	10.8
Incr Delay (d2), s/veh				1.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.3	0.0	0.1	1.1	0.1	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.2	0.0	4.0	13.1	10.8	0.0	11.2	0.0	10.8
LnGrp LOS				A	A	A	B	B		B	A	B
Approach Vol, veh/h					726			195	A		42	
Approach Delay, s/veh					7.0			12.9			11.1	
Approach LOS					A			B			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		11.8				11.8		22.7				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		24.5				24.5		56.5				
Max Q Clear Time (g_c+I1), s		6.5				2.8		11.8				
Green Ext Time (p_c), s		0.5				0.1		6.3				

Intersection Summary		
HCM 6th Ctrl Delay	8.4	
HCM 6th LOS	A	

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	170	10	120	550	105	70
Future Volume (veh/h)	170	10	120	550	105	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1761	1761	1834	1834	1804	1804
Adj Flow Rate, veh/h	179	11	126	579	111	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	7	7	9	9
Cap, veh/h	847	52	828	946	202	180
Arrive On Green	0.52	0.52	0.52	0.52	0.12	0.12
Sat Flow, veh/h	1642	101	1170	1834	1718	1529
Grp Volume(v), veh/h	0	190	126	579	111	74
Grp Sat Flow(s),veh/h/ln	0	1743	1170	1834	1718	1529
Q Serve(g_s), s	0.0	1.5	1.6	5.5	1.5	1.1
Cycle Q Clear(g_c), s	0.0	1.5	3.1	5.5	1.5	1.1
Prop In Lane		0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	899	828	946	202	180
V/C Ratio(X)	0.00	0.21	0.15	0.61	0.55	0.41
Avail Cap(c_a), veh/h	0	2877	2156	3028	1786	1589
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	3.2	4.1	4.2	10.2	10.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.6	2.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.7	0.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.3	4.1	4.9	12.5	11.5
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	190			705	185	
Approach Delay, s/veh	3.3			4.7	12.1	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	7.4	17.2	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	40.5	40.5
Max Q Clear Time (g_c+I1), s	3.5	3.5	7.5
Green Ext Time (p_c), s	0.5	1.2	5.2

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

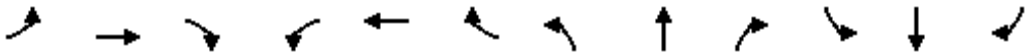
Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	170	0	150	140	0
Future Vol, veh/h	50	170	0	150	140	0
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	6	6	7	7
Mvmt Flow	60	202	0	179	167	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	346	168	-	0	-	0
Stage 1	167	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Critical Hdwy	6.47	6.27	-	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	-	-	-	-
Pot Cap-1 Maneuver	641	863	0	-	-	0
Stage 1	851	-	0	-	-	0
Stage 2	840	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	641	862	-	-	-	-
Mov Cap-2 Maneuver	678	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	678	862	-
HCM Lane V/C Ratio	-	0.088	0.235	-
HCM Control Delay (s)	-	10.8	10.5	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.3	0.9	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	250	90	60	230	45	100	90	45	95	145	65
Future Volume (veh/h)	15	250	90	60	230	45	100	90	45	95	145	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.97	0.97		0.94	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	16	263	95	63	242	47	105	95	47	100	153	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	5	5	5
Cap, veh/h	392	428	155	335	501	97	431	279	138	488	284	126
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.07	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	1075	1293	467	1012	1514	294	1753	1137	562	1739	1173	521
Grp Volume(v), veh/h	16	0	358	63	0	289	105	0	142	100	0	221
Grp Sat Flow(s),veh/h/ln	1075	0	1760	1012	0	1808	1753	0	1699	1739	0	1694
Q Serve(g_s), s	0.5	0.0	7.1	2.3	0.0	5.3	1.8	0.0	2.9	1.8	0.0	4.7
Cycle Q Clear(g_c), s	5.8	0.0	7.1	9.4	0.0	5.3	1.8	0.0	2.9	1.8	0.0	4.7
Prop In Lane	1.00		0.27	1.00		0.16	1.00		0.33	1.00		0.31
Lane Grp Cap(c), veh/h	392	0	582	335	0	599	431	0	416	488	0	410
V/C Ratio(X)	0.04	0.00	0.61	0.19	0.00	0.48	0.24	0.00	0.34	0.20	0.00	0.54
Avail Cap(c_a), veh/h	890	0	1397	804	0	1436	610	0	818	672	0	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	11.7	15.6	0.0	11.1	10.9	0.0	12.9	10.7	0.0	13.7
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.3	0.0	0.6	0.3	0.0	0.5	0.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.4	0.5	0.0	1.8	0.6	0.0	1.0	0.6	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	0.0	12.7	15.9	0.0	11.7	11.2	0.0	13.4	10.9	0.0	14.8
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		374			352			247			321	
Approach Delay, s/veh		12.8			12.4			12.5			13.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.8	7.7	15.1		18.8	7.6	15.2				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		9.1	3.8	6.7		11.4	3.8	4.9				
Green Ext Time (p_c), s		2.5	0.1	1.1		2.1	0.1	0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.8									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	370	40	0	0	0	140	250	415	65	205	185
Future Volume (veh/h)	15	370	40	0	0	0	140	250	415	65	205	185
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1879	1879	1879				1949	1949	1949	1790	1790	1790
Adj Flow Rate, veh/h	15	378	41				143	255	0	66	209	189
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4				2	2	2	7	7	7
Cap, veh/h	581	540	59				455	494		408	368	311
Arrive On Green	0.32	0.32	0.32				0.09	0.25	0.00	0.04	0.21	0.21
Sat Flow, veh/h	1790	1665	181				1856	1949	1651	1705	1790	1517
Grp Volume(v), veh/h	15	0	419				143	255	0	66	209	189
Grp Sat Flow(s),veh/h/ln	1790	0	1846				1856	1949	1651	1705	1790	1517
Q Serve(g_s), s	0.2	0.0	7.7				2.3	4.4	0.0	1.1	4.1	4.4
Cycle Q Clear(g_c), s	0.2	0.0	7.7				2.3	4.4	0.0	1.1	4.1	4.4
Prop In Lane	1.00		0.10				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	0	599				455	494		408	368	311
V/C Ratio(X)	0.03	0.00	0.70				0.31	0.52		0.16	0.57	0.61
Avail Cap(c_a), veh/h	1583	0	1632				1261	2024		1231	1859	1576
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	0.0	11.5				10.7	12.5	0.0	10.3	13.9	14.0
Incr Delay (d2), s/veh	0.0	0.0	1.5				0.1	0.6	0.0	0.1	1.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.8				0.7	1.5	0.0	0.3	1.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	0.0	13.0				10.9	13.1	0.0	10.4	14.9	15.5
LnGrp LOS	A	A	B				B	B		B	B	B
Approach Vol, veh/h		434						398	A		464	
Approach Delay, s/veh		12.8						12.3			14.5	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8
Phs Duration (G+Y+Rc), s		6.2	14.5		18.2	8.1	12.6
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6
Max Green Setting (Gmax), s		20.4	40.4		34.4	20.4	40.4
Max Q Clear Time (g_c+I1), s		3.1	6.4		9.7	4.3	6.4
Green Ext Time (p_c), s		0.1	1.2		2.9	0.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	95	60	65	50	45	50
Future Vol, veh/h	95	60	65	50	45	50
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	1	1	8	8	3	3
Mvmt Flow	114	72	78	60	54	60
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.7	8.3	8.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	47%
Vol Thru, %	57%	0%	0%	53%
Vol Right, %	43%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	95	60	95
LT Vol	0	95	0	45
Through Vol	65	0	0	50
RT Vol	50	0	60	0
Lane Flow Rate	139	114	72	114
Geometry Grp	2	7	7	2
Degree of Util (X)	0.169	0.178	0.088	0.149
Departure Headway (Hd)	4.382	5.598	4.393	4.672
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	642	815	769
Service Time	2.403	3.326	2.12	2.694
HCM Lane V/C Ratio	0.17	0.178	0.088	0.148
HCM Control Delay	8.3	9.5	7.5	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.6	0.3	0.5

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	110	10	75	140	90	15	70	45	60	60	50
Future Vol, veh/h	35	110	10	75	140	90	15	70	45	60	60	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	2	2	2	1	1	1	1	1	1
Mvmt Flow	37	117	11	80	149	96	16	74	48	64	64	53
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10	11	10	9.9
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	35%	0%	100%	0%
Vol Thru, %	0%	61%	0%	92%	65%	0%	0%	55%
Vol Right, %	0%	39%	0%	8%	0%	100%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	115	35	120	215	90	60	110
LT Vol	15	0	35	0	75	0	60	0
Through Vol	0	70	0	110	140	0	0	60
RT Vol	0	45	0	10	0	90	0	50
Lane Flow Rate	16	122	37	128	229	96	64	117
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.029	0.199	0.066	0.207	0.374	0.133	0.117	0.187
Departure Headway (Hd)	6.65	5.866	6.397	5.832	5.882	4.999	6.579	5.751
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	539	612	561	617	613	718	546	625
Service Time	4.384	3.6	4.127	3.562	3.607	2.724	4.31	3.481
HCM Lane V/C Ratio	0.03	0.199	0.066	0.207	0.374	0.134	0.117	0.187
HCM Control Delay	9.6	10.1	9.6	10.1	12.1	8.5	10.2	9.8
HCM Lane LOS	A	B	A	B	B	A	B	A
HCM 95th-tile Q	0.1	0.7	0.2	0.8	1.7	0.5	0.4	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	20	80	5	20	50	245	685	5	15	150	80
Future Volume (veh/h)	90	20	80	5	20	50	245	685	5	15	150	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1803	1803	1803	1967	1967	1967	1964	1964	1964	1761	1761	1761
Adj Flow Rate, veh/h	99	22	88	5	22	55	269	753	5	16	165	88
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	9	9	9
Cap, veh/h	192	43	201	9	39	97	530	1341	9	310	230	123
Arrive On Green	0.14	0.14	0.14	0.08	0.08	0.08	0.15	0.35	0.35	0.01	0.21	0.21
Sat Flow, veh/h	1417	315	1488	104	457	1142	1870	3799	25	1677	1081	576
Grp Volume(v), veh/h	121	0	88	82	0	0	269	370	388	16	0	253
Grp Sat Flow(s),veh/h/ln	1732	0	1488	1702	0	0	1870	1865	1959	1677	0	1657
Q Serve(g_s), s	2.9	0.0	2.4	2.1	0.0	0.0	4.8	7.1	7.1	0.3	0.0	6.3
Cycle Q Clear(g_c), s	2.9	0.0	2.4	2.1	0.0	0.0	4.8	7.1	7.1	0.3	0.0	6.3
Prop In Lane	0.82		1.00	0.06		0.67	1.00		0.01	1.00		0.35
Lane Grp Cap(c), veh/h	234	0	201	145	0	0	530	658	692	310	0	353
V/C Ratio(X)	0.52	0.00	0.44	0.57	0.00	0.00	0.51	0.56	0.56	0.05	0.00	0.72
Avail Cap(c_a), veh/h	1184	0	1018	973	0	0	896	2091	2196	873	0	1858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	17.7	19.6	0.0	0.0	11.1	11.6	11.6	9.7	0.0	16.3
Incr Delay (d2), s/veh	1.3	0.0	1.1	2.6	0.0	0.0	0.3	0.8	0.7	0.0	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.8	0.9	0.0	0.0	1.5	2.4	2.5	0.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	18.8	22.2	0.0	0.0	11.4	12.4	12.4	9.7	0.0	19.0
LnGrp LOS	B	A	B	C	A	A	B	B	B	A	A	B
Approach Vol, veh/h		209			82			1027			269	
Approach Delay, s/veh		19.1			22.2			12.1			18.5	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.3	5.0	20.7	10.5	11.3	14.5
Change Period (Y+Rc), s	4.5	4.5	5.0	4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	15.5	50.0	30.5	15.5	50.0
Max Q Clear Time (g_c+I1), s	4.1	2.3	9.1	4.9	6.8	8.3
Green Ext Time (p_c), s	0.3	0.0	5.2	0.8	0.3	1.6

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	30	10	5	25	30	20	110	5	45	80	25
Future Vol, veh/h	25	30	10	5	25	30	20	110	5	45	80	25
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	5	5	5
Mvmt Flow	32	38	13	6	32	38	25	139	6	57	101	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.6	8.2	9	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	38%	8%	100%	0%
Vol Thru, %	0%	96%	46%	42%	0%	76%
Vol Right, %	0%	4%	15%	50%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	115	65	60	45	105
LT Vol	20	0	25	5	45	0
Through Vol	0	110	30	25	0	80
RT Vol	0	5	10	30	0	25
Lane Flow Rate	25	146	82	76	57	133
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.039	0.204	0.113	0.099	0.089	0.183
Departure Headway (Hd)	5.57	5.036	4.927	4.671	5.633	4.962
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	642	712	727	766	636	722
Service Time	3.308	2.774	2.965	2.71	3.371	2.7
HCM Lane V/C Ratio	0.039	0.205	0.113	0.099	0.09	0.184
HCM Control Delay	8.5	9.1	8.6	8.2	8.9	8.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.4	0.3	0.3	0.7

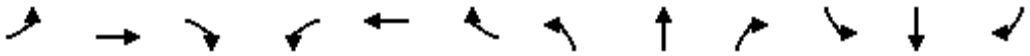
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	45	20	115	100	30
Future Vol, veh/h	25	45	20	115	100	30
Conflicting Peds, #/hr	6	6	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	7	7	4	4
Mvmt Flow	33	60	27	153	133	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	372	165	179	0	-	0
Stage 1	159	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.17	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.263	-	-	-
Pot Cap-1 Maneuver	629	879	1367	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	609	870	1360	-	-	-
Mov Cap-2 Maneuver	609	-	-	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1360	-	755	-	-
HCM Lane V/C Ratio	0.02	-	0.124	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	160	35	185	165	270	90	695	140	165	320	15
Future Volume (veh/h)	20	160	35	185	165	270	90	695	140	165	320	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	22	178	39	194	199	300	100	772	156	183	356	17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	5	5	5	2	2	2	5	5	5
Cap, veh/h	217	228	297	329	345	472	122	1253	253	206	1603	76
Arrive On Green	0.12	0.12	0.12	0.06	0.06	0.06	0.07	0.43	0.43	0.12	0.48	0.48
Sat Flow, veh/h	1753	1841	1530	1739	1826	1528	1781	2944	595	1739	3371	160
Grp Volume(v), veh/h	22	178	39	194	199	300	100	466	462	183	183	190
Grp Sat Flow(s),veh/h/ln	1753	1841	1530	1739	1826	1528	1781	1777	1762	1739	1735	1797
Q Serve(g_s), s	1.6	13.1	3.0	15.2	14.8	23.5	7.8	28.6	28.6	14.5	8.6	8.7
Cycle Q Clear(g_c), s	1.6	13.1	3.0	15.2	14.8	23.5	7.8	28.6	28.6	14.5	8.6	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		0.09
Lane Grp Cap(c), veh/h	217	228	297	329	345	472	122	756	750	206	825	854
V/C Ratio(X)	0.10	0.78	0.13	0.59	0.58	0.64	0.82	0.62	0.62	0.89	0.22	0.22
Avail Cap(c_a), veh/h	351	368	413	373	391	511	191	756	750	248	825	854
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	59.5	46.8	60.4	60.2	48.2	64.3	31.3	31.3	60.8	21.5	21.5
Incr Delay (d2), s/veh	0.1	2.2	0.1	0.9	0.6	1.5	7.6	3.7	3.8	24.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.3	1.1	7.2	7.4	9.9	3.8	12.9	12.8	7.8	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	61.7	46.9	61.2	60.8	49.7	71.9	35.0	35.1	85.0	22.1	22.1
LnGrp LOS	D	E	D	E	E	D	E	D	D	F	C	C
Approach Vol, veh/h		239			693			1028			556	
Approach Delay, s/veh		58.6			56.1			38.6			42.8	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.6	64.6		31.5	14.6	71.6		22.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	42.0		30.0	15.0	47.0		28.0				
Max Q Clear Time (g_c+I1), s	16.5	30.6		25.5	9.8	10.7		15.1				
Green Ext Time (p_c), s	0.1	3.1		0.8	0.0	1.4		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		46.3	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

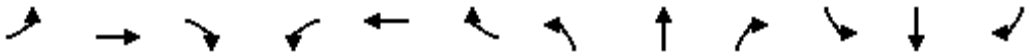
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	280	0	145	145	0
Future Vol, veh/h	80	280	0	145	145	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	2	2	3	3
Mvmt Flow	90	315	0	163	163	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	326	163	-	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	-	-
Pot Cap-1 Maneuver	662	874	0	-	-	0
Stage 1	859	-	0	-	-	0
Stage 2	859	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	662	874	-	-	-	-
Mov Cap-2 Maneuver	694	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	859	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	694	874	-
HCM Lane V/C Ratio	-	0.13	0.36	-
HCM Control Delay (s)	-	11	11.4	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.4	1.6	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	305	130	45	235	55	135	80	75	130	210	65
Future Volume (veh/h)	35	305	130	45	235	55	135	80	75	130	210	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.96	0.98		0.97	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	38	332	141	49	255	60	147	87	82	141	228	71
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
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	390	453	192	269	535	126	402	215	203	494	331	103
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.09	0.25	0.25	0.08	0.24	0.24
Sat Flow, veh/h	1059	1247	529	924	1472	346	1795	876	826	1795	1365	425
Grp Volume(v), veh/h	38	0	473	49	0	315	147	0	169	141	0	299
Grp Sat Flow(s),veh/h/ln	1059	0	1776	924	0	1819	1795	0	1702	1795	0	1790
Q Serve(g_s), s	1.4	0.0	11.3	2.4	0.0	6.5	2.9	0.0	4.1	2.8	0.0	7.4
Cycle Q Clear(g_c), s	7.9	0.0	11.3	13.7	0.0	6.5	2.9	0.0	4.1	2.8	0.0	7.4
Prop In Lane	1.00		0.30	1.00		0.19	1.00		0.49	1.00		0.24
Lane Grp Cap(c), veh/h	390	0	645	269	0	661	402	0	418	494	0	434
V/C Ratio(X)	0.10	0.00	0.73	0.18	0.00	0.48	0.37	0.00	0.40	0.29	0.00	0.69
Avail Cap(c_a), veh/h	719	0	1196	556	0	1225	500	0	695	598	0	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	13.5	19.5	0.0	12.0	12.6	0.0	15.5	12.2	0.0	16.9
Incr Delay (d2), s/veh	0.1	0.0	1.6	0.3	0.0	0.5	0.6	0.0	0.6	0.3	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.2	0.5	0.0	2.4	1.1	0.0	1.5	1.0	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	15.2	19.8	0.0	12.5	13.2	0.0	16.1	12.5	0.0	18.8
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		511			364			316			440	
Approach Delay, s/veh		15.2			13.5			14.7			16.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.8	9.3	16.9		22.8	9.2	17.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		13.3	4.9	9.4		15.7	4.8	6.1				
Green Ext Time (p_c), s		3.4	0.1	1.3		2.1	0.1	0.8				

Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	350	40	0	0	0	115	130	380	95	310	195
Future Volume (veh/h)	15	350	40	0	0	0	115	130	380	95	310	195
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1924	1924	1924				1964	1964	1964	1879	1879	1879
Adj Flow Rate, veh/h	16	376	43				124	140	0	102	333	210
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1				1	1	1	1	1	1
Cap, veh/h	563	519	59				410	551		564	505	416
Arrive On Green	0.31	0.31	0.31				0.07	0.28	0.00	0.06	0.27	0.27
Sat Flow, veh/h	1833	1689	193				1870	1964	1664	1790	1879	1550
Grp Volume(v), veh/h	16	0	419				124	140	0	102	333	210
Grp Sat Flow(s),veh/h/ln	1833	0	1883				1870	1964	1664	1790	1879	1550
Q Serve(g_s), s	0.3	0.0	8.4				2.0	2.3	0.0	1.7	6.7	4.8
Cycle Q Clear(g_c), s	0.3	0.0	8.4				2.0	2.3	0.0	1.7	6.7	4.8
Prop In Lane	1.00		0.10				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	563	0	578				410	551		564	505	416
V/C Ratio(X)	0.03	0.00	0.72				0.30	0.25		0.18	0.66	0.50
Avail Cap(c_a), veh/h	1144	0	1175				1084	1411		1230	1350	1114
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	13.1				10.4	11.8	0.0	9.8	13.7	13.1
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.2	0.2	0.0	0.1	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.2				0.7	0.9	0.0	0.6	2.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	0.0	14.8				10.5	12.0	0.0	9.8	14.8	13.8
LnGrp LOS	B	A	B				B	B		A	B	B
Approach Vol, veh/h		435						264	A		645	
Approach Delay, s/veh		14.6						11.3			13.7	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8
Phs Duration (G+Y+Rc), s		7.2	16.5		18.6	7.7	16.0
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6
Max Green Setting (Gmax), s		18.4	30.4		26.4	18.4	30.4
Max Q Clear Time (g_c+I1), s		3.7	4.3		10.4	4.0	8.7
Green Ext Time (p_c), s		0.1	0.6		2.5	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	125	125	140	95	115	95
Future Vol, veh/h	125	125	140	95	115	95
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	134	134	151	102	124	102
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.8	10	10.4
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	55%
Vol Thru, %	60%	0%	0%	45%
Vol Right, %	40%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	125	125	210
LT Vol	0	125	0	115
Through Vol	140	0	0	95
RT Vol	95	0	125	0
Lane Flow Rate	253	134	134	226
Geometry Grp	2	7	7	2
Degree of Util (X)	0.328	0.229	0.184	0.316
Departure Headway (Hd)	4.668	6.133	4.921	5.032
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	581	722	709
Service Time	2.728	3.915	2.703	3.095
HCM Lane V/C Ratio	0.33	0.231	0.186	0.319
HCM Control Delay	10	10.8	8.8	10.4
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	1.4	0.9	0.7	1.4

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	205	30	65	160	80	35	105	100	75	80	95
Future Vol, veh/h	50	205	30	65	160	80	35	105	100	75	80	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	1	1	1	3	3	3	3	3	3
Mvmt Flow	54	223	33	71	174	87	38	114	109	82	87	103
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	15	14.5	14	12.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	29%	0%	100%	0%
Vol Thru, %	0%	51%	0%	87%	71%	0%	0%	46%
Vol Right, %	0%	49%	0%	13%	0%	100%	0%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	205	50	235	225	80	75	175
LT Vol	35	0	50	0	65	0	75	0
Through Vol	0	105	0	205	160	0	0	80
RT Vol	0	100	0	30	0	80	0	95
Lane Flow Rate	38	223	54	255	245	87	82	190
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.081	0.422	0.112	0.483	0.478	0.149	0.173	0.357
Departure Headway (Hd)	7.674	6.813	7.413	6.811	7.041	6.178	7.661	6.76
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	467	528	484	529	511	580	469	533
Service Time	5.417	4.555	5.155	4.553	4.782	3.919	5.406	4.505
HCM Lane V/C Ratio	0.081	0.422	0.112	0.482	0.479	0.15	0.175	0.356
HCM Control Delay	11.1	14.5	11.1	15.8	16.1	10	12	13.2
HCM Lane LOS	B	B	B	C	C	A	B	B
HCM 95th-tile Q	0.3	2.1	0.4	2.6	2.6	0.5	0.6	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	30	185	0	30	35	180	400	0	25	245	80
Future Volume (veh/h)	175	30	185	0	30	35	180	400	0	25	245	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2027	2027	2027	1964	1964	1964	1864	1864	1864
Adj Flow Rate, veh/h	182	31	193	0	31	36	188	417	0	26	255	83
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	310	53	312	0	70	81	421	1271	0	418	340	111
Arrive On Green	0.21	0.21	0.21	0.00	0.08	0.08	0.11	0.34	0.00	0.02	0.25	0.25
Sat Flow, veh/h	1514	258	1519	0	834	968	1870	3829	0	1776	1347	438
Grp Volume(v), veh/h	213	0	193	0	0	67	188	417	0	26	0	338
Grp Sat Flow(s),veh/h/ln	1771	0	1519	0	0	1802	1870	1865	0	1776	0	1785
Q Serve(g_s), s	5.7	0.0	6.1	0.0	0.0	1.9	3.8	4.4	0.0	0.5	0.0	9.2
Cycle Q Clear(g_c), s	5.7	0.0	6.1	0.0	0.0	1.9	3.8	4.4	0.0	0.5	0.0	9.2
Prop In Lane	0.85		1.00	0.00		0.54	1.00		0.00	1.00		0.25
Lane Grp Cap(c), veh/h	363	0	312	0	0	151	421	1271	0	418	0	450
V/C Ratio(X)	0.59	0.00	0.62	0.00	0.00	0.44	0.45	0.33	0.00	0.06	0.00	0.75
Avail Cap(c_a), veh/h	1030	0	883	0	0	876	953	3201	0	1080	0	1531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	19.0	0.0	0.0	22.9	13.0	12.8	0.0	11.1	0.0	18.1
Incr Delay (d2), s/veh	1.1	0.0	1.5	0.0	0.0	1.5	0.3	0.1	0.0	0.0	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.0	0.0	0.0	0.8	1.3	1.5	0.0	0.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	20.5	0.0	0.0	24.4	13.2	13.0	0.0	11.2	0.0	20.6
LnGrp LOS	B	A	C	A	A	C	B	B	A	B	A	C
Approach Vol, veh/h		406			67			605			364	
Approach Delay, s/veh		20.2			24.4			13.1			20.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.9	5.4	22.9	15.3	10.1	18.2
Change Period (Y+Rc), s	4.5	4.5	5.0	4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	20.5	45.0	30.5	20.5	45.0
Max Q Clear Time (g_c+I1), s	3.9	2.5	6.4	8.1	5.8	11.2
Green Ext Time (p_c), s	0.2	0.0	2.9	1.6	0.2	2.2

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	65	55	5	55	45	70	135	10	105	175	30
Future Vol, veh/h	45	65	55	5	55	45	70	135	10	105	175	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	0	0	0
Mvmt Flow	48	70	59	5	59	48	75	145	11	113	188	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.4	9.6	10.2	10.8
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	27%	5%	100%	0%
Vol Thru, %	0%	93%	39%	52%	0%	85%
Vol Right, %	0%	7%	33%	43%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	145	165	105	105	205
LT Vol	70	0	45	5	105	0
Through Vol	0	135	65	55	0	175
RT Vol	0	10	55	45	0	30
Lane Flow Rate	75	156	177	113	113	220
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.131	0.248	0.266	0.171	0.193	0.339
Departure Headway (Hd)	6.284	5.729	5.407	5.447	6.141	5.531
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	628	664	658	586	650
Service Time	4.014	3.458	3.441	3.484	3.866	3.257
HCM Lane V/C Ratio	0.131	0.248	0.267	0.172	0.193	0.338
HCM Control Delay	10	10.3	10.4	9.6	10.3	11.1
HCM Lane LOS	A	B	B	A	B	B
HCM 95th-tile Q	0.4	1	1.1	0.6	0.7	1.5

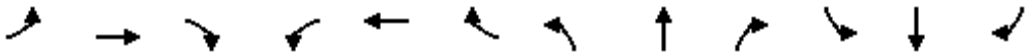
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	130	55	210	170	50
Future Vol, veh/h	65	130	55	210	170	50
Conflicting Peds, #/hr	22	19	19	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	70	140	59	226	183	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	598	251	259	0	-	0
Stage 1	232	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	468	793	1311	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	428	766	1287	-	-	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.1	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1287	-	606	-	-
HCM Lane V/C Ratio	0.046	-	0.346	-	-
HCM Control Delay (s)	7.9	0	14.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	-	-



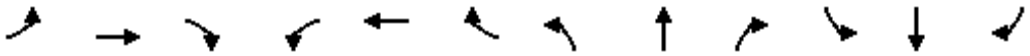
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	185	175	210	190	165	100	370	110	285	650	10
Future Volume (veh/h)	15	185	175	210	190	165	100	370	110	285	650	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	16	193	182	208	213	172	104	385	115	297	677	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	286	300	388	311	327	575	154	524	155	347	1086	16
Arrive On Green	0.16	0.16	0.16	0.17	0.17	0.17	0.09	0.19	0.19	0.19	0.30	0.30
Sat Flow, veh/h	1795	1885	1574	1795	1885	1553	1795	2725	804	1810	3641	54
Grp Volume(v), veh/h	16	193	182	208	213	172	104	251	249	297	336	351
Grp Sat Flow(s),veh/h/ln	1795	1885	1574	1795	1885	1553	1795	1791	1738	1810	1805	1890
Q Serve(g_s), s	0.5	6.8	7.0	7.6	7.4	5.6	4.0	9.3	9.5	11.2	11.3	11.3
Cycle Q Clear(g_c), s	0.5	6.8	7.0	7.6	7.4	5.6	4.0	9.3	9.5	11.2	11.3	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.03
Lane Grp Cap(c), veh/h	286	300	388	311	327	575	154	345	334	347	538	564
V/C Ratio(X)	0.06	0.64	0.47	0.67	0.65	0.30	0.68	0.73	0.74	0.86	0.62	0.62
Avail Cap(c_a), veh/h	687	721	739	890	934	1076	458	913	886	692	1150	1205
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	27.8	22.8	27.3	27.2	16.0	31.3	26.8	26.9	27.6	21.4	21.4
Incr Delay (d2), s/veh	0.0	0.9	0.3	0.9	0.8	0.1	1.9	1.1	1.2	2.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.0	2.5	3.2	3.3	1.9	1.7	3.8	3.8	4.8	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	28.7	23.1	28.2	28.0	16.1	33.3	27.9	28.1	30.0	21.8	21.8
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		391			593			604			984	
Approach Delay, s/veh		25.9			24.6			28.9			24.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.5	18.6		17.2	11.1	26.1		16.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	27.0	36.0		35.0	18.0	45.0		27.0				
Max Q Clear Time (g_c+I1), s	13.2	11.5		9.6	6.0	13.3		9.0				
Green Ext Time (p_c), s	0.4	1.9		1.4	0.1	2.7		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		25.7
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	135	527	40	175	10	135	30	5	5
Future Volume (veh/h)	0	0	0	135	527	40	175	10	135	30	5	5
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	0.99		1.00	0.99		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1841	1841	1841	1826	1826	1826	1781	1781	1781
Adj Flow Rate, veh/h				142	555	42	184	11	0	32	5	5
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				4	4	4	5	5	5	8	8	8
Cap, veh/h				198	774	829	484	386		477	171	171
Arrive On Green				0.53	0.53	0.53	0.21	0.21	0.00	0.21	0.21	0.21
Sat Flow, veh/h				371	1451	1554	1352	1826	0	1318	811	811
Grp Volume(v), veh/h				697	0	42	184	11	0	32	0	10
Grp Sat Flow(s),veh/h/ln				1822	0	1554	1352	1826	0	1318	0	1622
Q Serve(g_s), s				10.2	0.0	0.5	4.4	0.2	0.0	0.7	0.0	0.2
Cycle Q Clear(g_c), s				10.2	0.0	0.5	4.6	0.2	0.0	0.9	0.0	0.2
Prop In Lane				0.20		1.00	1.00		0.00	1.00		0.50
Lane Grp Cap(c), veh/h				972	0	829	484	386		477	0	343
V/C Ratio(X)				0.72	0.00	0.05	0.38	0.03		0.07	0.00	0.03
Avail Cap(c_a), veh/h				2924	0	2494	1139	1270		1115	0	1128
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh				6.2	0.0	3.9	12.8	11.0	0.0	11.4	0.0	11.0
Incr Delay (d2), s/veh				1.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.1	1.1	0.1	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.2	0.0	4.0	13.3	11.0	0.0	11.4	0.0	11.1
LnGrp LOS				A	A	A	B	B		B	A	B
Approach Vol, veh/h					739			195	A		42	
Approach Delay, s/veh					7.0			13.2			11.3	
Approach LOS					A			B			B	

Timer - Assigned Phs	2		6		8							
Phs Duration (G+Y+Rc), s	11.9		11.9		23.3							
Change Period (Y+Rc), s	4.5		4.5		4.5							
Max Green Setting (Gmax), s	24.5		24.5		56.5							
Max Q Clear Time (g_c+I1), s	6.6		2.9		12.2							
Green Ext Time (p_c), s	0.5		0.1		6.5							

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

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	170	10	120	550	117	70
Future Volume (veh/h)	170	10	120	550	117	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1761	1761	1834	1834	1804	1804
Adj Flow Rate, veh/h	179	11	126	579	123	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	9	9	7	7	9	9
Cap, veh/h	841	52	819	940	218	194
Arrive On Green	0.51	0.51	0.51	0.51	0.13	0.13
Sat Flow, veh/h	1642	101	1170	1834	1718	1529
Grp Volume(v), veh/h	0	190	126	579	123	74
Grp Sat Flow(s),veh/h/ln	0	1743	1170	1834	1718	1529
Q Serve(g_s), s	0.0	1.5	1.6	5.6	1.7	1.1
Cycle Q Clear(g_c), s	0.0	1.5	3.1	5.6	1.7	1.1
Prop In Lane		0.06	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	893	819	940	218	194
V/C Ratio(X)	0.00	0.21	0.15	0.62	0.57	0.38
Avail Cap(c_a), veh/h	0	2830	2119	2979	1757	1563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	3.3	4.2	4.3	10.2	10.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.7	2.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.8	0.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.4	4.3	5.0	12.5	11.2
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	190			705	197	
Approach Delay, s/veh	3.4			4.9	12.0	
Approach LOS	A			A	B	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	7.7	17.3	17.3
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	40.5	40.5
Max Q Clear Time (g_c+I1), s	3.7	3.5	7.6
Green Ext Time (p_c), s	0.6	1.2	5.2

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

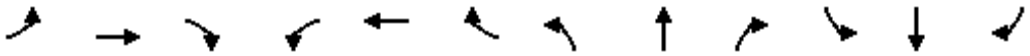
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	175	0	162	140	0
Future Vol, veh/h	50	175	0	162	140	0
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	7	7	6	6	7	7
Mvmt Flow	60	208	0	193	167	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	360	168	-	0	-	0
Stage 1	167	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Critical Hdwy	6.47	6.27	-	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.363	-	-	-	-
Pot Cap-1 Maneuver	629	863	0	-	-	0
Stage 1	851	-	0	-	-	0
Stage 2	828	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	629	862	-	-	-	-
Mov Cap-2 Maneuver	670	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	670	862	-
HCM Lane V/C Ratio	-	0.089	0.242	-
HCM Control Delay (s)	-	10.9	10.5	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.3	0.9	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	250	95	60	230	45	104	102	45	95	150	65
Future Volume (veh/h)	15	250	95	60	230	45	104	102	45	95	150	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.97	0.97		0.94	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	16	263	100	63	242	47	109	107	47	100	158	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	4	4	4	5	5	5
Cap, veh/h	392	423	161	331	503	98	430	295	130	481	288	124
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.07	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	1075	1272	484	1007	1514	294	1753	1188	522	1739	1187	511
Grp Volume(v), veh/h	16	0	363	63	0	289	109	0	154	100	0	226
Grp Sat Flow(s),veh/h/ln	1075	0	1756	1007	0	1808	1753	0	1710	1739	0	1697
Q Serve(g_s), s	0.5	0.0	7.3	2.4	0.0	5.3	1.9	0.0	3.1	1.8	0.0	4.9
Cycle Q Clear(g_c), s	5.9	0.0	7.3	9.7	0.0	5.3	1.9	0.0	3.1	1.8	0.0	4.9
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.31	1.00		0.30
Lane Grp Cap(c), veh/h	392	0	584	331	0	601	430	0	425	481	0	413
V/C Ratio(X)	0.04	0.00	0.62	0.19	0.00	0.48	0.25	0.00	0.36	0.21	0.00	0.55
Avail Cap(c_a), veh/h	877	0	1376	785	0	1417	602	0	812	661	0	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	11.8	15.9	0.0	11.2	11.0	0.0	13.1	10.9	0.0	13.9
Incr Delay (d2), s/veh	0.0	0.0	1.1	0.3	0.0	0.6	0.3	0.0	0.5	0.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.5	0.5	0.0	1.9	0.7	0.0	1.1	0.6	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	0.0	12.9	16.2	0.0	11.8	11.3	0.0	13.6	11.1	0.0	15.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		379			352			263			326	
Approach Delay, s/veh		12.9			12.6			12.6			13.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.0	7.9	15.2		19.0	7.6	15.5				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		9.3	3.9	6.9		11.7	3.8	5.1				
Green Ext Time (p_c), s		2.5	0.1	1.1		2.1	0.1	0.7				

Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	370	40	0	0	0	140	250	435	65	212	185
Future Volume (veh/h)	15	370	40	0	0	0	140	250	435	65	212	185
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1879	1879	1879				1949	1949	1949	1790	1790	1790
Adj Flow Rate, veh/h	15	378	41				143	255	0	66	216	189
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4				2	2	2	7	7	7
Cap, veh/h	580	540	59				451	496		408	369	313
Arrive On Green	0.32	0.32	0.32				0.09	0.25	0.00	0.04	0.21	0.21
Sat Flow, veh/h	1790	1665	181				1856	1949	1651	1705	1790	1517
Grp Volume(v), veh/h	15	0	419				143	255	0	66	216	189
Grp Sat Flow(s),veh/h/ln	1790	0	1846				1856	1949	1651	1705	1790	1517
Q Serve(g_s), s	0.2	0.0	7.7				2.3	4.4	0.0	1.1	4.2	4.4
Cycle Q Clear(g_c), s	0.2	0.0	7.7				2.3	4.4	0.0	1.1	4.2	4.4
Prop In Lane	1.00		0.10				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	0	599				451	496		408	369	313
V/C Ratio(X)	0.03	0.00	0.70				0.32	0.51		0.16	0.59	0.60
Avail Cap(c_a), veh/h	1580	0	1630				1256	2020		1230	1856	1573
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	0.0	11.5				10.7	12.5	0.0	10.3	14.0	14.0
Incr Delay (d2), s/veh	0.0	0.0	1.5				0.1	0.6	0.0	0.1	1.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.8				0.7	1.5	0.0	0.3	1.6	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	0.0	13.0				10.9	13.1	0.0	10.4	15.1	15.4
LnGrp LOS	A	A	B				B	B		B	B	B
Approach Vol, veh/h		434						398	A		471	
Approach Delay, s/veh		12.9						12.3			14.6	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8
Phs Duration (G+Y+Rc), s		6.2	14.5		18.2	8.1	12.6
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6
Max Green Setting (Gmax), s		20.4	40.4		34.4	20.4	40.4
Max Q Clear Time (g_c+I1), s		3.1	6.4		9.7	4.3	6.4
Green Ext Time (p_c), s		0.1	1.2		2.9	0.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	102	60	65	70	45	50
Future Vol, veh/h	102	60	65	70	45	50
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	1	1	8	8	3	3
Mvmt Flow	123	72	78	84	54	60
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.9	8.5	8.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	47%
Vol Thru, %	48%	0%	0%	53%
Vol Right, %	52%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	102	60	95
LT Vol	0	102	0	45
Through Vol	65	0	0	50
RT Vol	70	0	60	0
Lane Flow Rate	163	123	72	114
Geometry Grp	2	7	7	2
Degree of Util (X)	0.197	0.193	0.089	0.15
Departure Headway (Hd)	4.362	5.649	4.443	4.726
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	635	806	760
Service Time	2.383	3.381	2.174	2.75
HCM Lane V/C Ratio	0.198	0.194	0.089	0.15
HCM Control Delay	8.5	9.7	7.6	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.7	0.3	0.5

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	130	10	75	147	90	15	70	45	60	60	50
Future Vol, veh/h	35	130	10	75	147	90	15	70	45	60	60	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	1	1	2	2	2	1	1	1	1	1	1
Mvmt Flow	37	138	11	80	156	96	16	74	48	64	64	53
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10.3	11.3	10.1	10
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	34%	0%	100%	0%
Vol Thru, %	0%	61%	0%	93%	66%	0%	0%	55%
Vol Right, %	0%	39%	0%	7%	0%	100%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	115	35	140	222	90	60	110
LT Vol	15	0	35	0	75	0	60	0
Through Vol	0	70	0	130	147	0	0	60
RT Vol	0	45	0	10	0	90	0	50
Lane Flow Rate	16	122	37	149	236	96	64	117
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.03	0.202	0.066	0.243	0.388	0.134	0.118	0.19
Departure Headway (Hd)	6.742	5.957	6.424	5.868	5.92	5.043	6.668	5.839
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	531	603	558	612	609	711	538	614
Service Time	4.477	3.692	4.156	3.599	3.649	2.771	4.402	3.572
HCM Lane V/C Ratio	0.03	0.202	0.066	0.243	0.388	0.135	0.119	0.191
HCM Control Delay	9.7	10.2	9.6	10.5	12.4	8.6	10.3	9.9
HCM Lane LOS	A	B	A	B	B	A	B	A
HCM 95th-tile Q	0.1	0.8	0.2	0.9	1.8	0.5	0.4	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	20	80	0	20	50	245	685	5	15	150	87
Future Volume (veh/h)	110	20	80	0	20	50	245	685	5	15	150	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1803	1803	1803	1967	1967	1967	1964	1964	1964	1761	1761	1761
Adj Flow Rate, veh/h	121	22	88	0	22	55	269	753	5	16	165	96
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	6	6	6	1	1	1	9	9	9
Cap, veh/h	218	40	222	0	39	98	521	1355	9	308	228	133
Arrive On Green	0.15	0.15	0.15	0.00	0.08	0.08	0.15	0.36	0.36	0.01	0.22	0.22
Sat Flow, veh/h	1463	266	1492	0	483	1207	1870	3799	25	1677	1044	607
Grp Volume(v), veh/h	143	0	88	0	0	77	269	370	388	16	0	261
Grp Sat Flow(s),veh/h/ln	1729	0	1492	0	0	1690	1870	1865	1959	1677	0	1651
Q Serve(g_s), s	3.5	0.0	2.5	0.0	0.0	2.0	4.9	7.3	7.3	0.3	0.0	6.8
Cycle Q Clear(g_c), s	3.5	0.0	2.5	0.0	0.0	2.0	4.9	7.3	7.3	0.3	0.0	6.8
Prop In Lane	0.85		1.00	0.00		0.71	1.00		0.01	1.00		0.37
Lane Grp Cap(c), veh/h	258	0	222	0	0	137	521	665	699	308	0	361
V/C Ratio(X)	0.56	0.00	0.40	0.00	0.00	0.56	0.52	0.56	0.56	0.05	0.00	0.72
Avail Cap(c_a), veh/h	1144	0	987	0	0	935	870	2024	2125	852	0	1791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	17.7	0.0	0.0	20.4	11.4	11.9	11.9	9.9	0.0	16.7
Incr Delay (d2), s/veh	1.4	0.0	0.8	0.0	0.0	2.7	0.3	0.7	0.7	0.0	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.8	0.0	0.0	0.8	1.6	2.5	2.6	0.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	0.0	18.6	0.0	0.0	23.1	11.7	12.6	12.6	9.9	0.0	19.5
LnGrp LOS	B	A	B	A	A	C	B	B	B	A	A	B
Approach Vol, veh/h		231			77			1027			277	
Approach Delay, s/veh		19.2			23.1			12.4			18.9	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.2	5.1	21.4	11.4	11.4	15.1
Change Period (Y+Rc), s	4.5	4.5	5.0	4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	15.5	50.0	30.5	15.5	50.0
Max Q Clear Time (g_c+I1), s	4.0	2.3	9.3	5.5	6.9	8.8
Green Ext Time (p_c), s	0.3	0.0	5.2	0.9	0.3	1.7

Intersection Summary	
HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	34	10	5	31	46	20	110	5	55	80	25
Future Vol, veh/h	25	34	10	5	31	46	20	110	5	55	80	25
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	5	5	5
Mvmt Flow	32	43	13	6	39	58	25	139	6	70	101	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.7	8.5	9.1	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	36%	6%	100%	0%
Vol Thru, %	0%	96%	49%	38%	0%	76%
Vol Right, %	0%	4%	14%	56%	0%	24%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	115	69	82	55	105
LT Vol	20	0	25	5	55	0
Through Vol	0	110	34	31	0	80
RT Vol	0	5	10	46	0	25
Lane Flow Rate	25	146	87	104	70	133
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.04	0.208	0.121	0.135	0.111	0.186
Departure Headway (Hd)	5.673	5.139	5.005	4.679	5.721	5.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	696	714	764	625	708
Service Time	3.419	2.885	3.053	2.725	3.466	2.795
HCM Lane V/C Ratio	0.04	0.21	0.122	0.136	0.112	0.188
HCM Control Delay	8.7	9.2	8.7	8.5	9.2	9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.4	0.5	0.4	0.7

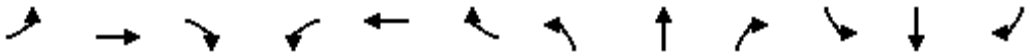
Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	57	31	115	100	37
Future Vol, veh/h	45	57	31	115	100	37
Conflicting Peds, #/hr	6	6	6	0	0	6
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	7	7	4	4
Mvmt Flow	60	76	41	153	133	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	405	170	188	0	-	0
Stage 1	164	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.17	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.263	-	-	-
Pot Cap-1 Maneuver	602	874	1357	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	576	865	1350	-	-	-
Mov Cap-2 Maneuver	576	-	-	-	-	-
Stage 1	832	-	-	-	-	-
Stage 2	795	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1350	-	708	-	-
HCM Lane V/C Ratio	0.031	-	0.192	-	-
HCM Control Delay (s)	7.8	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	160	35	185	165	273	90	702	140	167	326	18
Future Volume (veh/h)	21	160	35	185	165	273	90	702	140	167	326	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1826	1826	1826	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	23	178	39	194	199	303	100	780	156	186	362	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	5	5	5	2	2	2	5	5	5
Cap, veh/h	217	228	297	330	347	476	122	1248	250	209	1587	87
Arrive On Green	0.12	0.12	0.12	0.06	0.06	0.06	0.07	0.42	0.42	0.12	0.47	0.47
Sat Flow, veh/h	1753	1841	1530	1739	1826	1528	1781	2950	590	1739	3343	184
Grp Volume(v), veh/h	23	178	39	194	199	303	100	470	466	186	187	195
Grp Sat Flow(s),veh/h/ln	1753	1841	1530	1739	1826	1528	1781	1777	1763	1739	1735	1793
Q Serve(g_s), s	1.6	13.1	3.0	15.2	14.8	23.7	7.8	29.0	29.0	14.8	8.9	9.0
Cycle Q Clear(g_c), s	1.6	13.1	3.0	15.2	14.8	23.7	7.8	29.0	29.0	14.8	8.9	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.10
Lane Grp Cap(c), veh/h	217	228	297	330	347	476	122	752	746	209	823	851
V/C Ratio(X)	0.11	0.78	0.13	0.59	0.57	0.64	0.82	0.63	0.63	0.89	0.23	0.23
Avail Cap(c_a), veh/h	351	368	413	373	391	513	191	752	746	248	823	851
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	59.5	46.8	60.3	60.1	48.0	64.3	31.7	31.7	60.7	21.7	21.7
Incr Delay (d2), s/veh	0.1	2.2	0.1	0.8	0.6	1.5	7.6	3.9	3.9	25.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.3	1.1	7.2	7.4	9.9	3.8	13.2	13.1	7.9	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	61.7	46.9	61.1	60.7	49.5	71.9	35.6	35.6	85.6	22.3	22.3
LnGrp LOS	D	E	D	E	E	D	E	D	D	F	C	C
Approach Vol, veh/h		240			696			1036			568	
Approach Delay, s/veh		58.6			55.9			39.1			43.0	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.8	64.2		31.6	14.6	71.4		22.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	20.0	42.0		30.0	15.0	47.0		28.0				
Max Q Clear Time (g_c+I1), s	16.8	31.0		25.7	9.8	11.0		15.1				
Green Ext Time (p_c), s	0.1	3.1		0.8	0.0	1.4		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		46.4	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	75	50	24	37	26
Future Vol, veh/h	18	75	50	24	37	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	82	54	26	40	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	189	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1518	-	-	-	800	997
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	903	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1518	-	-	-	789	997
Mov Cap-2 Maneuver	-	-	-	-	789	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	903	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1518	-	-	-	863
HCM Lane V/C Ratio	0.013	-	-	-	0.079
HCM Control Delay (s)	7.4	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

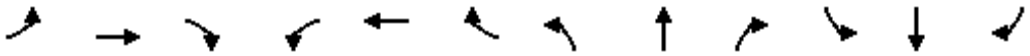
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	285	0	146	145	0
Future Vol, veh/h	80	285	0	146	145	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	2	2	3	3
Mvmt Flow	90	320	0	164	163	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	327	163	-	0	-	0
Stage 1	163	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	-	-
Pot Cap-1 Maneuver	661	874	0	-	-	0
Stage 1	859	-	0	-	-	0
Stage 2	858	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	661	874	-	-	-	-
Mov Cap-2 Maneuver	693	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	858	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	693	874	-
HCM Lane V/C Ratio	-	0.13	0.366	-
HCM Control Delay (s)	-	11	11.5	-
HCM Lane LOS	-	B	B	-
HCM 95th %tile Q(veh)	-	0.4	1.7	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	305	133	45	235	55	135	81	75	130	215	65
Future Volume (veh/h)	35	305	133	45	235	55	135	81	75	130	215	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.99		0.96	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	38	332	145	49	255	60	147	88	82	141	234	71
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
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	391	451	197	266	537	126	398	218	203	494	336	102
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.09	0.25	0.25	0.08	0.24	0.24
Sat Flow, veh/h	1059	1235	539	922	1472	346	1795	881	821	1795	1375	417
Grp Volume(v), veh/h	38	0	477	49	0	315	147	0	170	141	0	305
Grp Sat Flow(s),veh/h/ln	1059	0	1774	922	0	1819	1795	0	1703	1795	0	1792
Q Serve(g_s), s	1.4	0.0	11.6	2.4	0.0	6.6	2.9	0.0	4.1	2.8	0.0	7.7
Cycle Q Clear(g_c), s	8.0	0.0	11.6	14.0	0.0	6.6	2.9	0.0	4.1	2.8	0.0	7.7
Prop In Lane	1.00		0.30	1.00		0.19	1.00		0.48	1.00		0.23
Lane Grp Cap(c), veh/h	391	0	647	266	0	664	398	0	421	494	0	437
V/C Ratio(X)	0.10	0.00	0.74	0.18	0.00	0.47	0.37	0.00	0.40	0.29	0.00	0.70
Avail Cap(c_a), veh/h	711	0	1183	545	0	1213	494	0	688	595	0	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	13.7	19.7	0.0	12.1	12.7	0.0	15.6	12.3	0.0	17.0
Incr Delay (d2), s/veh	0.1	0.0	1.7	0.3	0.0	0.5	0.6	0.0	0.6	0.3	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	4.3	0.5	0.0	2.4	1.1	0.0	1.5	1.0	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	15.3	20.1	0.0	12.6	13.3	0.0	16.2	12.6	0.0	19.1
LnGrp LOS	B	A	B	C	A	B	B	A	B	B	A	B
Approach Vol, veh/h		515			364			317			446	
Approach Delay, s/veh		15.3			13.6			14.9			17.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.1	9.4	17.1		23.1	9.2	17.2				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		33.0	7.0	20.0		33.0	7.0	20.0				
Max Q Clear Time (g_c+I1), s		13.6	4.9	9.7		16.0	4.8	6.1				
Green Ext Time (p_c), s		3.4	0.1	1.4		2.1	0.1	0.8				

Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	350	40	0	0	0	115	130	381	95	318	195
Future Volume (veh/h)	15	350	40	0	0	0	115	130	381	95	318	195
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1924	1924	1924				1964	1964	1964	1879	1879	1879
Adj Flow Rate, veh/h	16	376	43				124	140	0	102	342	210
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1				1	1	1	1	1	1
Cap, veh/h	561	517	59				407	559		567	513	423
Arrive On Green	0.31	0.31	0.31				0.07	0.28	0.00	0.06	0.27	0.27
Sat Flow, veh/h	1833	1689	193				1870	1964	1664	1790	1879	1550
Grp Volume(v), veh/h	16	0	419				124	140	0	102	342	210
Grp Sat Flow(s),veh/h/ln	1833	0	1883				1870	1964	1664	1790	1879	1550
Q Serve(g_s), s	0.3	0.0	8.5				2.0	2.3	0.0	1.7	6.9	4.9
Cycle Q Clear(g_c), s	0.3	0.0	8.5				2.0	2.3	0.0	1.7	6.9	4.9
Prop In Lane	1.00		0.10				1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	561	0	577				407	559		567	513	423
V/C Ratio(X)	0.03	0.00	0.73				0.30	0.25		0.18	0.67	0.50
Avail Cap(c_a), veh/h	1133	0	1164				1074	1398		1227	1338	1104
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	13.2				10.4	11.8	0.0	9.7	13.8	13.1
Incr Delay (d2), s/veh	0.0	0.0	1.8				0.2	0.2	0.0	0.1	1.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.3				0.7	0.9	0.0	0.6	2.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	0.0	15.0				10.5	11.9	0.0	9.8	14.9	13.7
LnGrp LOS	B	A	B				B	B		A	B	B
Approach Vol, veh/h		435						264	A		654	
Approach Delay, s/veh		14.8						11.3			13.7	
Approach LOS		B						B			B	

Timer - Assigned Phs		3	4		6	7	8					
Phs Duration (G+Y+Rc), s		7.3	16.8		18.7	7.8	16.3					
Change Period (Y+Rc), s		4.6	4.6		5.6	4.6	4.6					
Max Green Setting (Gmax), s		18.4	30.4		26.4	18.4	30.4					
Max Q Clear Time (g_c+I1), s		3.7	4.3		10.5	4.0	8.9					
Green Ext Time (p_c), s		0.1	0.6		2.5	0.1	2.3					

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	133	125	140	96	115	95
Future Vol, veh/h	133	125	140	96	115	95
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	143	134	151	103	124	102
Number of Lanes	1	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.9	10.1	10.5
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	100%	0%	55%
Vol Thru, %	59%	0%	0%	45%
Vol Right, %	41%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	236	133	125	210
LT Vol	0	133	0	115
Through Vol	140	0	0	95
RT Vol	96	0	125	0
Lane Flow Rate	254	143	134	226
Geometry Grp	2	7	7	2
Degree of Util (X)	0.331	0.244	0.184	0.317
Departure Headway (Hd)	4.69	6.138	4.927	5.056
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	761	581	720	707
Service Time	2.753	3.922	2.71	3.124
HCM Lane V/C Ratio	0.334	0.246	0.186	0.32
HCM Control Delay	10.1	10.9	8.8	10.5
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.5	1	0.7	1.4

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	206	30	65	168	80	35	105	100	75	80	95
Future Vol, veh/h	50	206	30	65	168	80	35	105	100	75	80	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	1	1	1	3	3	3	3	3	3
Mvmt Flow	54	224	33	71	183	87	38	114	109	82	87	103
Number of Lanes	1	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	15.1	14.9	14.1	13
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	28%	0%	100%	0%
Vol Thru, %	0%	51%	0%	87%	72%	0%	0%	46%
Vol Right, %	0%	49%	0%	13%	0%	100%	0%	54%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	205	50	236	233	80	75	175
LT Vol	35	0	50	0	65	0	75	0
Through Vol	0	105	0	206	168	0	0	80
RT Vol	0	100	0	30	0	80	0	95
Lane Flow Rate	38	223	54	257	253	87	82	190
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.082	0.424	0.112	0.488	0.496	0.15	0.174	0.36
Departure Headway (Hd)	7.717	6.856	7.445	6.843	7.052	6.194	7.705	6.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	526	482	526	512	578	465	529
Service Time	5.462	4.6	5.188	4.586	4.794	3.936	5.45	4.549
HCM Lane V/C Ratio	0.082	0.424	0.112	0.489	0.494	0.151	0.176	0.359
HCM Control Delay	11.2	14.6	11.1	16	16.6	10	12.1	13.4
HCM Lane LOS	B	B	B	C	C	A	B	B
HCM 95th-tile Q	0.3	2.1	0.4	2.6	2.7	0.5	0.6	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	30	185	0	30	35	180	400	0	25	245	88
Future Volume (veh/h)	176	30	185	0	30	35	180	400	0	25	245	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2027	2027	2027	1964	1964	1964	1864	1864	1864
Adj Flow Rate, veh/h	183	31	193	0	31	36	188	417	0	26	255	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	310	52	311	0	70	81	418	1290	0	422	337	122
Arrive On Green	0.20	0.20	0.20	0.00	0.08	0.08	0.11	0.35	0.00	0.02	0.26	0.26
Sat Flow, veh/h	1515	257	1519	0	834	968	1870	3829	0	1776	1307	472
Grp Volume(v), veh/h	214	0	193	0	0	67	188	417	0	26	0	347
Grp Sat Flow(s),veh/h/ln	1771	0	1519	0	0	1802	1870	1865	0	1776	0	1779
Q Serve(g_s), s	5.8	0.0	6.1	0.0	0.0	1.9	3.8	4.4	0.0	0.5	0.0	9.5
Cycle Q Clear(g_c), s	5.8	0.0	6.1	0.0	0.0	1.9	3.8	4.4	0.0	0.5	0.0	9.5
Prop In Lane	0.86		1.00	0.00		0.54	1.00		0.00	1.00		0.27
Lane Grp Cap(c), veh/h	362	0	311	0	0	151	418	1290	0	422	0	459
V/C Ratio(X)	0.59	0.00	0.62	0.00	0.00	0.44	0.45	0.32	0.00	0.06	0.00	0.76
Avail Cap(c_a), veh/h	1017	0	873	0	0	865	942	3162	0	1075	0	1508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	0.0	19.3	0.0	0.0	23.2	13.0	12.8	0.0	11.1	0.0	18.2
Incr Delay (d2), s/veh	1.1	0.0	1.5	0.0	0.0	1.5	0.3	0.1	0.0	0.0	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.0	0.0	0.0	0.8	1.3	1.6	0.0	0.2	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	20.8	0.0	0.0	24.7	13.3	12.9	0.0	11.1	0.0	20.7
LnGrp LOS	C	A	C	A	A	C	B	B	A	B	A	C
Approach Vol, veh/h		407			67			605			373	
Approach Delay, s/veh		20.5			24.7			13.0			20.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	8.9	5.5	23.4	15.4	10.1	18.7
Change Period (Y+Rc), s	4.5	4.5	5.0	4.5	4.5	5.0
Max Green Setting (Gmax), s	25.5	20.5	45.0	30.5	20.5	45.0
Max Q Clear Time (g_c+I1), s	3.9	2.5	6.4	8.1	5.8	11.5
Green Ext Time (p_c), s	0.2	0.0	2.9	1.6	0.2	2.2

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	68	55	5	55	46	70	135	10	113	175	30
Future Vol, veh/h	45	68	55	5	55	46	70	135	10	113	175	30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	0	0	0
Mvmt Flow	48	73	59	5	59	49	75	145	11	122	188	32
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.5	9.7	10.3	10.9
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	27%	5%	100%	0%
Vol Thru, %	0%	93%	40%	52%	0%	85%
Vol Right, %	0%	7%	33%	43%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	145	168	106	113	205
LT Vol	70	0	45	5	113	0
Through Vol	0	135	68	55	0	175
RT Vol	0	10	55	46	0	30
Lane Flow Rate	75	156	181	114	122	220
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.132	0.249	0.273	0.173	0.208	0.34
Departure Headway (Hd)	6.315	5.759	5.435	5.476	6.159	5.549
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	568	624	661	654	583	648
Service Time	4.047	3.491	3.469	3.513	3.887	3.277
HCM Lane V/C Ratio	0.132	0.25	0.274	0.174	0.209	0.34
HCM Control Delay	10	10.4	10.5	9.7	10.5	11.1
HCM Lane LOS	A	B	B	A	B	B
HCM 95th-tile Q	0.5	1	1.1	0.6	0.8	1.5

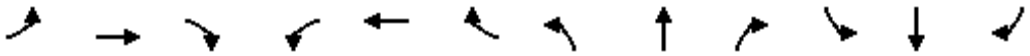
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	129	62	210	170	58
Future Vol, veh/h	66	129	62	210	170	58
Conflicting Peds, #/hr	22	19	19	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	71	139	67	226	183	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	618	255	267	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	456	789	1303	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	413	762	1279	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1279	-	593	-	-
HCM Lane V/C Ratio	0.052	-	0.354	-	-
HCM Control Delay (s)	8	0	14.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	185	175	210	190	167	100	374	110	285	649	10
Future Volume (veh/h)	16	185	175	210	190	167	100	374	110	285	649	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	17	193	182	208	213	174	104	390	115	297	676	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	286	300	387	311	327	575	154	529	154	347	1091	16
Arrive On Green	0.16	0.16	0.16	0.17	0.17	0.17	0.09	0.19	0.19	0.19	0.30	0.30
Sat Flow, veh/h	1795	1885	1574	1795	1885	1553	1795	2734	797	1810	3641	54
Grp Volume(v), veh/h	17	193	182	208	213	174	104	254	251	297	335	351
Grp Sat Flow(s),veh/h/ln	1795	1885	1574	1795	1885	1553	1795	1791	1739	1810	1805	1890
Q Serve(g_s), s	0.6	6.8	7.0	7.7	7.5	5.7	4.0	9.4	9.6	11.2	11.3	11.3
Cycle Q Clear(g_c), s	0.6	6.8	7.0	7.7	7.5	5.7	4.0	9.4	9.6	11.2	11.3	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.03
Lane Grp Cap(c), veh/h	286	300	387	311	327	575	154	347	337	347	541	566
V/C Ratio(X)	0.06	0.64	0.47	0.67	0.65	0.30	0.68	0.73	0.75	0.86	0.62	0.62
Avail Cap(c_a), veh/h	684	718	736	887	931	1073	456	910	884	690	1146	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	27.9	22.8	27.4	27.3	16.1	31.4	26.8	26.9	27.7	21.3	21.3
Incr Delay (d2), s/veh	0.0	0.9	0.3	0.9	0.8	0.1	1.9	1.1	1.2	2.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.0	2.5	3.2	3.3	1.9	1.7	3.9	3.9	4.8	4.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	28.8	23.2	28.3	28.1	16.2	33.4	28.0	28.2	30.1	21.8	21.8
LnGrp LOS	C	C	C	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		392			595			609			983	
Approach Delay, s/veh		26.0			24.7			29.0			24.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.6	18.7		17.3	11.1	26.2		16.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	27.0	36.0		35.0	18.0	45.0		27.0				
Max Q Clear Time (g_c+I1), s	13.2	11.6		9.7	6.0	13.3		9.0				
Green Ext Time (p_c), s	0.4	1.9		1.4	0.1	2.7		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		25.8	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	177	103	42	28	20
Future Vol, veh/h	32	177	103	42	28	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	192	112	46	30	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	158	0	-	0	397	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1422	-	-	-	608	914
Stage 1	-	-	-	-	891	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1422	-	-	-	591	914
Mov Cap-2 Maneuver	-	-	-	-	591	-
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	782	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1422	-	-	-	693
HCM Lane V/C Ratio	0.024	-	-	-	0.075
HCM Control Delay (s)	7.6	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Appendix D:Trip Generation

AM Peak Hour Trip Generation

Land Use	Size	Trip Rate[1]	Total Trips				Internal Trips[3]			Driveway Trips			Pass-By Trips				Primary Trips		
			Total	In%[2]	In	Out	In	Out	Total	In	Out	Total	Pass-By Rate[4]	In	Out	Total	In	Out	Total
Proposed																			
Shopping Center (820)	7,930 sq ft	0.94 per 1000 sq ft	7	62%	4	3	0	0	0	4	3	7	0%	0	0	0	4	3	7
High-Turnover (Sit-Down) Restaurant (932)	5,417 sq ft	9.94 per 1000 sq ft	54	55%	30	24	6	1	7	24	23	47	0%	0	0	0	24	23	47
Multifamily Housing (Mid-Rise) (221)	160 units	0.36 per unit	58	26%	15	43	1	6	7	14	37	51	0%	0	0	0	14	37	51
Existing[5]																			
Various Uses[5]	19,136 sq ft												0%	0	0	0	10	9	19
Net New																	**32**	**54**	**86**

1. Trip rate from ITE *Trip Generation*, 10th Edition (2017) and methods in *Trip Generation Handbook*, 3rd Edition (2017).
2: In/out percentages based on ITE *Trip Generation*, 10th Edition (2017)
3: Internal Trips methodology consistent with ITE *Trip Generation Handbook*, 3rd Edition (2017)
4: No weekday AM peak hour pass-by rate is given, assumed to be 0% for conservative purposes.
5. Existing trip generation based on driveway counts conducted in November 2018.

PM Peak Hour Trip Generation

Land Use	Size	Trip Rate[1]	Total Trips				Internal Trips[3]			Driveway Trips			Pass-By Trips				Primary Trips		
			Total	In%[2]	In	Out	In	Out	Total	In	Out	Total	Pass-By Rate[4]	In	Out	Total	In	Out	Total
Proposed																			
Shopping Center (820)	7,930 sq ft	Ln(T)=.74*LN(X)+2.89	83	48%	40	43	12	21	33	28	22	50	34%	9	9	18	19	13	32
High-Turnover (Sit-Down) Restaurant (932)	5,417 sq ft	9.77 per 1000 sq ft	53	62%	33	20	15	12	27	18	8	26	43%	6	6	12	12	2	14
Multifamily Housing (Mid-Rise) (221)	160 units	0.44 per unit	70	61%	43	27	15	9	24	28	18	46	0%	0	0	0	28	18	46
Existing[5]																			
Various Uses[5]	19,136 sq ft												34%	16	16	32	33	32	65
Net New																	**26**	**1**	**27**

1. Trip rate from ITE *Trip Generation* , 10th Edition (2017) and methods in *Trip Generation Handbook* , 3rd Edition (2017).
2: In/out percentages based on ITE *Trip Generation* , 10th Edition (2017)
3: Internal Trips methodology consistent with ITE *Trip Generation Handbook* , 3rd Edition (2017)
4: Weekday PM peak hour pass-by rate from ITE *Trip Generation Handbook* , 3rd Edition (2017).
5. Existing trip generation based on driveway counts conducted in November 2018.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Mercer Island Residential	**Organization:**	Transpo Group
Project Location:	Mercer Island Residential	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				7	4	3
Restaurant				54	30	24
Cinema/Entertainment				0	0	0
Residential				58	15	43
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				119	49	70

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	119	49	70
Internal Capture Percentage	12%	14%	10%
External Vehicle-Trips[5]	105	42	63
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	0%	0%
Restaurant	20%	4%
Cinema/Entertainment	N/A	N/A
Residential	7%	14%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Mercer Island Residential
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	4	4	1.00	3	3
Restaurant	1.00	30	30	1.00	24	24
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	15	15	1.00	43	43
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		0	0	0	0
Restaurant	7	3		0	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	9	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	7	0	0	0
Retail	0		15	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	6	0		0
Hotel	0	0	2	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	4	4	4	0	0
Restaurant	6	24	30	24	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	14	15	14	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	3	3	3	0	0
Restaurant	1	23	24	23	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	6	37	43	37	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Mercer Island Residential	**Organization:**	
Project Location:	Mercer Island Residential	**Performed By:**	
Scenario Description:		**Date:**	
Analysis Year:		**Checked By:**	
Analysis Period:	**PM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				83	40	43
Restaurant				53	33	20
Cinema/Entertainment				0	0	0
Residential				70	43	27
Hotel				0	0	0
All Other Land Uses[2]				0	0	0
				206	116	90

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%	1.00	0%	0%
Retail	1.00	0%	0%	1.00	0%	0%
Restaurant	1.00	0%	0%	1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%	1.00	0%	0%
Residential	1.00	0%	0%	1.00	0%	0%
Hotel	1.00	0%	0%	1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%	1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		10	0	11	0
Restaurant	0	8		0	4	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	5	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	206	116	90
Internal Capture Percentage	41%	36%	47%
External Vehicle-Trips[5]	122	74	48
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	30%	49%
Restaurant	45%	60%
Cinema/Entertainment	N/A	N/A
Residential	35%	33%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Mercer Island Residential
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	40	40	1.00	43	43
Restaurant	1.00	33	33	1.00	20	20
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	43	43	1.00	27	27
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		12	2	11	2
Restaurant	1	8		2	4	1
Cinema/Entertainment	0	0	0		0	0
Residential	1	11	6	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	1	0	2	0
Retail	0		10	0	20	0
Restaurant	0	20		0	7	0
Cinema/Entertainment	0	2	1		2	0
Residential	0	4	5	0		0
Hotel	0	1	2	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	12	28	40	28	0	0
Restaurant	15	18	33	18	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	15	28	43	28	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	21	22	43	22	0	0
Restaurant	12	8	20	8	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	9	18	27	18	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

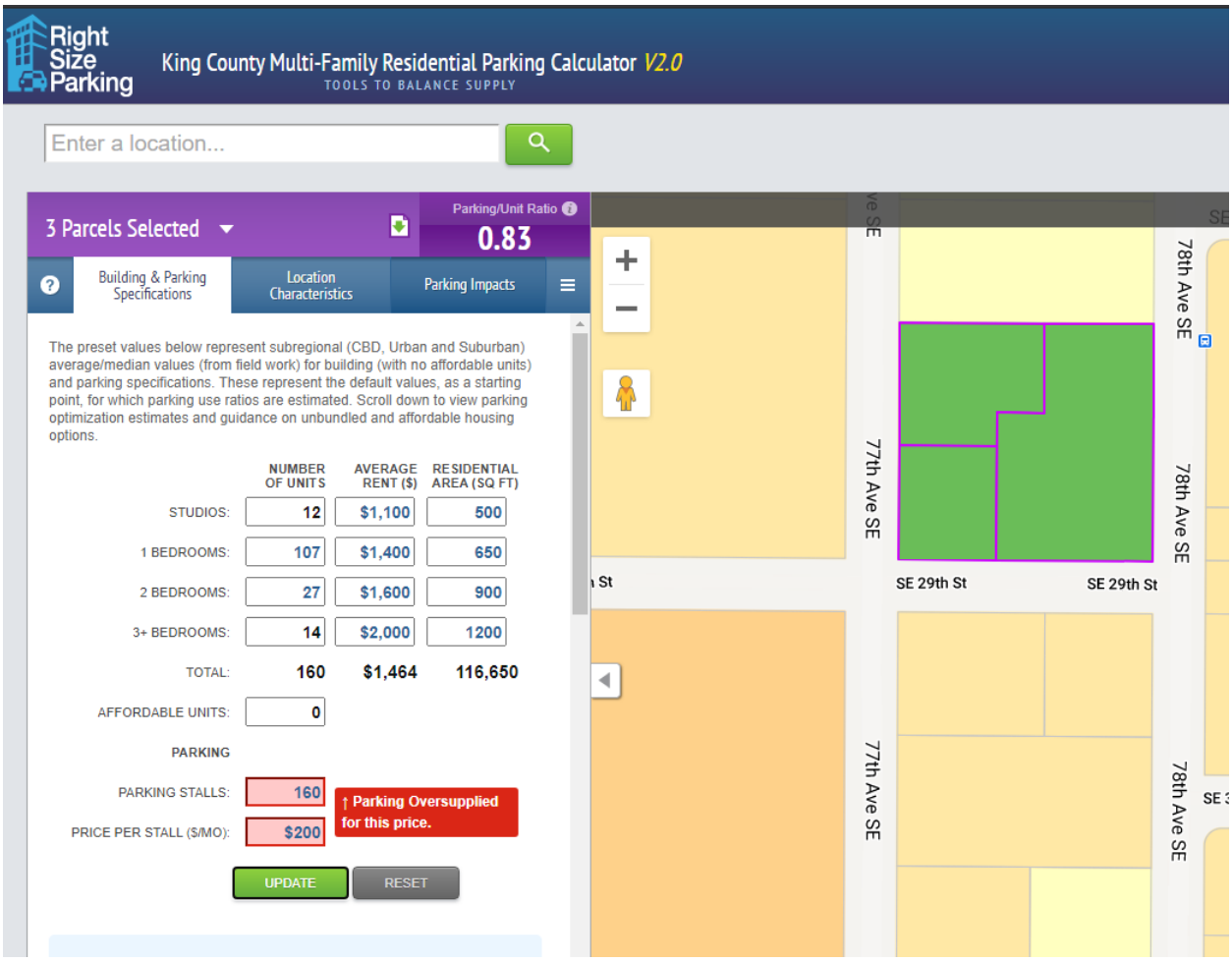
[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Appendix E:Parking Information


Right Size Parking
King County Multi-Family Residential Parking Calculator V2.0
TOOLS TO BALANCE SUPPLY
Enter a location...
3 Parcels Selected
Parking/Unit Ratio
0.83
Building & Parking Specifications
Location Characteristics
Parking Impacts
The preset values below represent subregional (CBD, Urban and Suburban) average/median values (from field work) for building (with no affordable units) and parking specifications. These represent the default values, as a starting point, for which parking use ratios are estimated. Scroll down to view parking optimization estimates and guidance on unbundled and affordable housing options.
NUMBER OF UNITS
AVERAGE RENT ($)
RESIDENTIAL AREA (SQ FT)
STUDIOS: 12 $1,100 500
1 BEDROOMS: 107 $1,400 650
2 BEDROOMS: 27 $1,600 900
3+ BEDROOMS: 14 $2,000 1200
TOTAL: 160 $1,464 116,650
AFFORDABLE UNITS: 0
PARKING
PARKING STALLS: 160
PRICE PER STALL ($/MO): $200
↑ Parking Oversupplied for this price.
UPDATE
RESET
77th Ave SE
78th Ave SE
SE 29th St
SE 29th St

Retail Parking Demand Rate Calculation

Project Information

Project: Mercer Island Mixed Use

Project No: 18352.00

Retail Size:

Commercial Space

7,930 sf Retail

Local Mode Split Data[1]:

Vehicle	100%
Walk / Bicycle	0%
Transit	0%
	100%

Parking Demand Rate[2]:

1.95 stalls / 1,000 sf (ITE Shopping Center #820)

Localized Parking Demand Rate:

Parking Demand Rate x Vehicle Mode Split

1.95 vehicles / 1,000 sf Shopping Center

Parking Demand:

Retail Size x Localized Parking Demand Rate

15 vehicles

Notes:

1 Based on ITE Parking Generation (5th Edition, 2019) shopping center land use 820 for non-Friday weekday, non-December.

Restaurant Parking Demand Rate Calculation

Project Information

Project:	Mercer Island Mixed Use
Project No:	18352.00

Retail Size:

Commercial Space

5,417	sf	Restaurant

Local Mode Split Data[1]:

Vehicle	100%
Walk / Bicycle	0%
Transit	0%
	100%

Parking Demand Rate[2]:

9.44	stalls / 1,000 sf (High-Turnover Sit Down Restaurant)

Localized Parking Demand Rate:

Parking Demand Rate x Vehicle Mode Split

9.44	vehicles / 1,000 sf	Restaurant

Parking Demand:

Retail Size x Localized Parking Demand Rate

51	vehicles

Notes:

1 Based on ITE Parking Generation (5th Edition, 2019)) High-Turnover Sit Down Restaurant land use 932 on a weekday

Weekday Shared Parking Demand Estimate

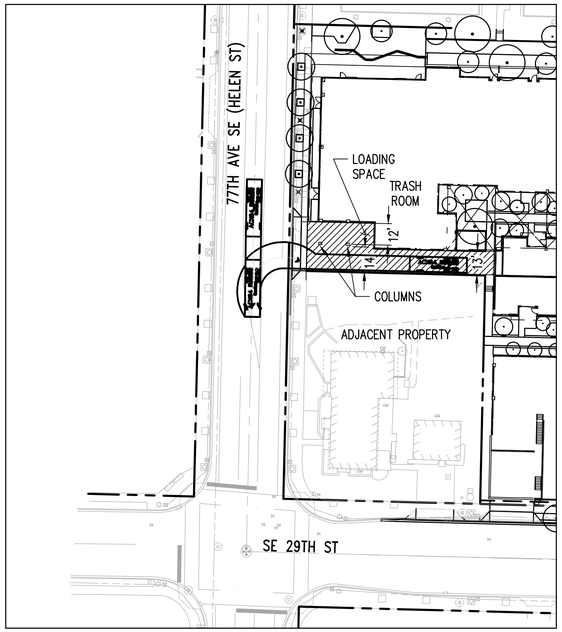
	Retail (LU #820)		Restaurant (LU #932)		Residential (LU#221)		
Size	**7,930 sf**		**5,417 sf**		**160 units**		
Rate[1]	1.95 vehicles per 1,000 sf		9.44 vehicles per 1,000 sf		.83 vehicles per unit		
Peak Demand	**15**		**51**		**131**		
Time of Day[2]	**% Hourly Demand**	**Hourly Demand**	**% Hourly Demand**	**Hourly Demand**	**% Hourly Demand**	**Hourly Demand**	**Cumulative Parking Demand**
12-4:00 AM	0%	0	0%	0	100%	131	131
5:00 AM	0%	0	0%	0	94%	123	123
6:00 AM	0%	0	0%	0	83%	109	109
7:00 AM	0%	0	0%	0	71%	93	93
8:00 AM	15%	2	0%	0	61%	80	82
9:00 AM	32%	5	0%	0	55%	72	77
10:00 AM	54%	8	9%	5	54%	71	84
11:00 AM	71%	11	15%	8	53%	69	88
12:00 PM	99%	15	100%	51	50%	66	132
1:00 PM	100%	15	81%	41	49%	64	120
2:00 PM	90%	14	54%	28	49%	64	106
3:00 PM	83%	13	33%	17	50%	66	96
4:00 PM	81%	13	26%	13	58%	76	102
5:00 PM	84%	13	29%	15	64%	84	112
6:00 PM	86%	13	58%	30	67%	88	131
7:00 PM	80%	12	70%	36	70%	92	140
8:00 PM	63%	10	77%	39	76%	100	149
9:00 PM	42%	6	61%	31	83%	109	146
10:00 PM	15%	2	41%	21	90%	118	141
11:00 PM	0%	0	0%	0	93%	122	122
Note: sf = square-feet, DU = dwelling units							149

1. Retail and Restaurant Parking demand rate based on the ITE Parking Generation, 5th Edition . Residential parking demand rate based on Right Size parking.

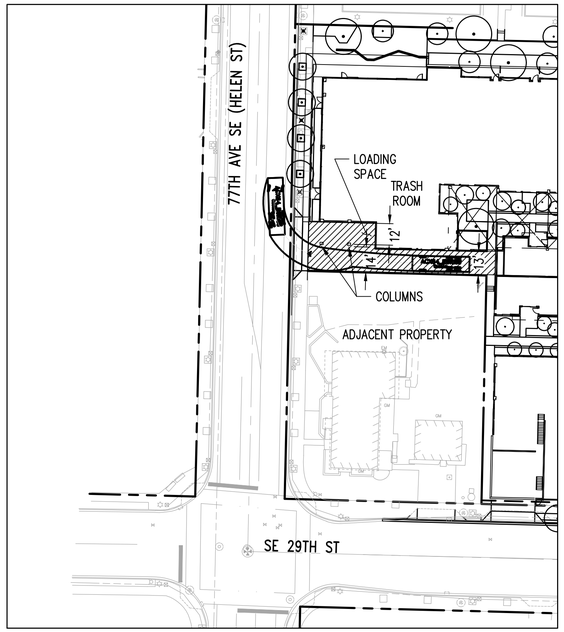
2. Commerical internal capture assumed in analysis consistent with the trip generation analysis.

2. Time of day based on the ITE Parking Generation, 5th Edition.

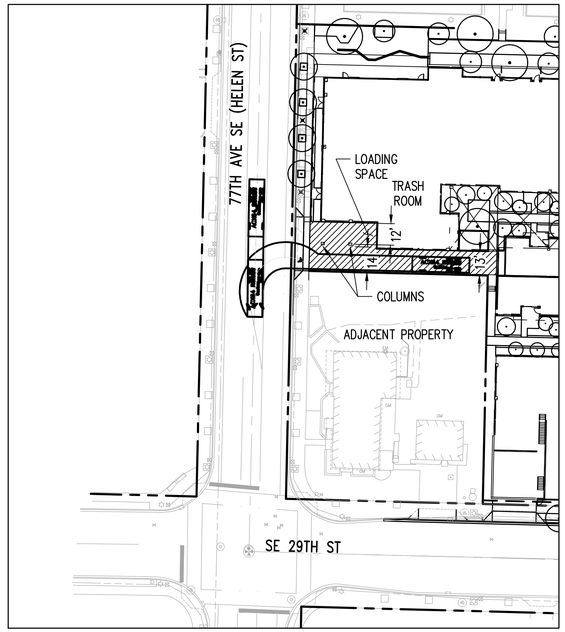
Appendix F:Loading Area Sight Distance and Autoturns



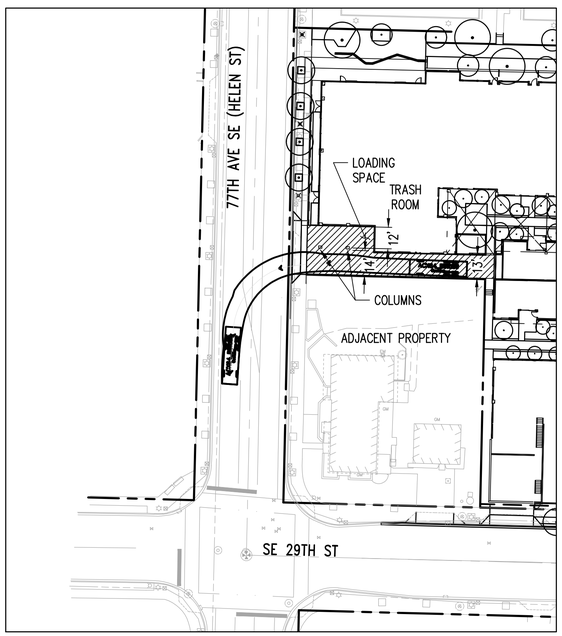
REFUSE TRUCK NB INGRESS
SCALE: 1"=40'
1



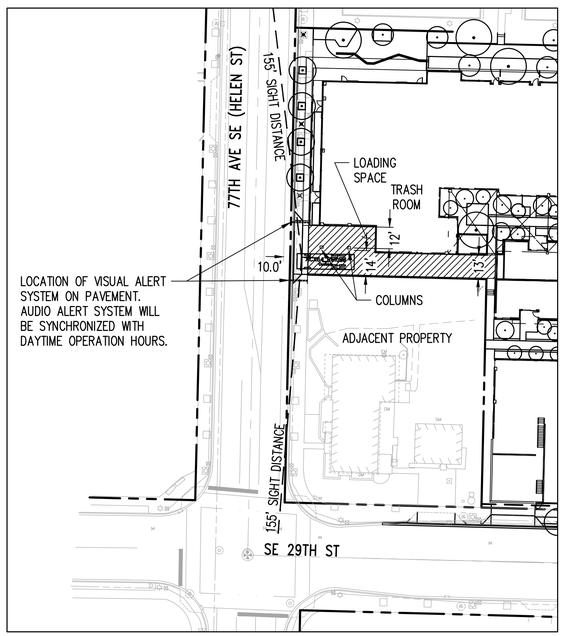
REFUSE TRUCK NB EGRESS
SCALE: 1"=40'
2



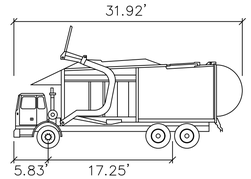
REFUSE TRUCK SB INGRESS
SCALE: 1"=40'
3



REFUSE TRUCK SB EGRESS
SCALE: 1"=40'
4



REFUSE TRUCK SIGHT DISTANCE
SCALE: 1"=40'
5



ACX64 REFUSE

	FEET
WIDTH	: 8.42
TRACK	: 8.37
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 35.1

REFUSE TRUCK DETAIL
NTS
5

JA

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206.622.5822
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MERCER ISLAND MIXED USE

XING HUA GROUP LTD.
2885 78TH AVE SE
MERCER ISLAND, WA

DRAWING ISSUE

Date	Description
12/24/2019	LAND USE SET

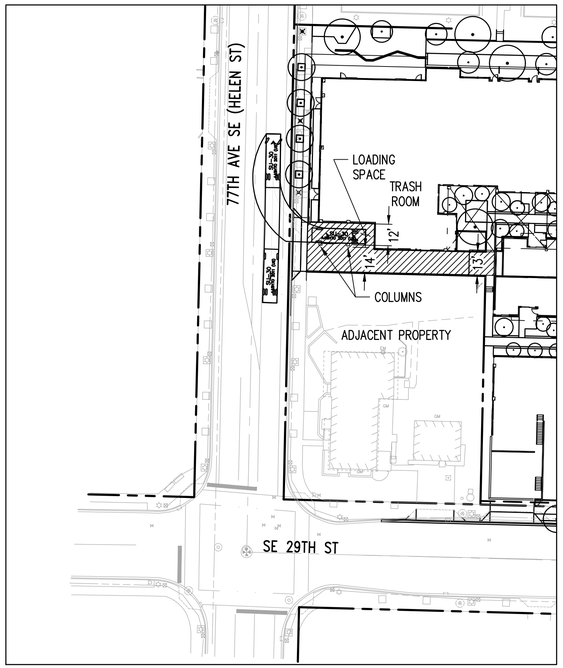
JON DAN EBERHARDT
STATE OF WASHINGTON
31745
REGISTERED
PROFESSIONAL ENGINEER
12/23/2019

SHEET TITLE
REFUSE TRUCK TURNING MOVEMENTS

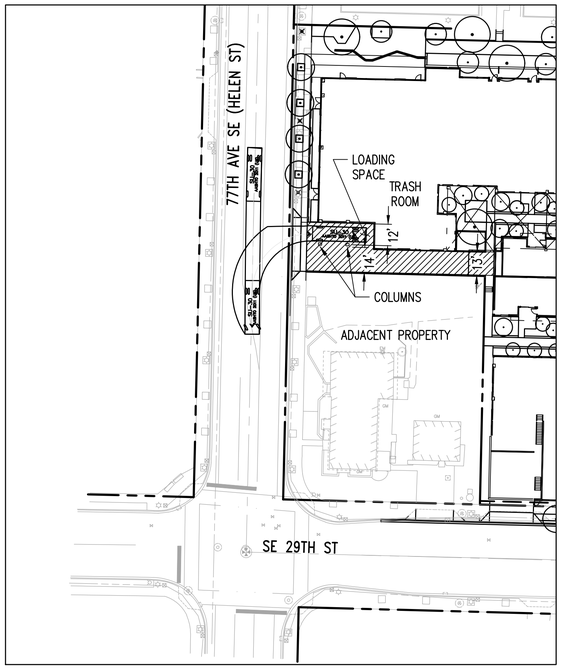
SHEET NO.
C303

Drawn	TNF
Checked	ATT

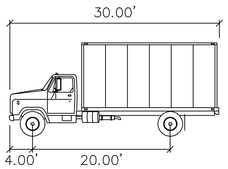
Dec 23, 2019 - 11:24am AdolfoT Z:\1800001-1800999\1800596 Mercer Island - 2885 78th Ave SE\CAD\Design\MI-C900-DT.dwg



SU-30 NB INGRESS
SCALE: 1"=40'
1



SU-30 SB INGRESS
SCALE: 1"=40'
2



SU-30

	FEET
WIDTH	: 8.00
TRACK	: 8.00
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 31.8

SU-30 DETAIL
NTS
3

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MERCER ISLAND MIXED USE

XING HUA GROUP LTD.
2885 78TH AVE SE
MERCER ISLAND, WA

DRAWING ISSUE

Date	Description
12/24/2019	LAND USE SET

JOHN DAN EBERHARDT
STATE OF WASHINGTON
31745
REGISTERED
PROFESSIONAL ENGINEER
12/23/2019

SHEET TITLE
SU-30 TURNING MOVEMENTS

SHEET NO.
C304

Drawn TNF
Checked ATT

Dec 23, 2019 - 11:24am AdolfoT Z:\180001-180999\1800596 Mercer Island - 2885 78th Ave SE\CAD\Design\MI-C300-01.dwg