DRAFT Transportation Impact Analysis

NORTHWEST UNIVERSITY MASTER PLAN

KIRKLAND MAIN CAMPUS

Prepared for:
Northwest University

June 2016

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Executive Summary

This section provides an executive summary of the Transportation Impact Analysis through a set of frequently asked questions (FAQs).

Where is the project located and what would be developed?

The focus of the Master Plan is the Northwest University main campus located at 5520 108th Avenue NE in Kirkland, Washington. Key elements of the proposed Master Plan include the addition of 4 new buildings, replacement of 3 existing buildings and associated improvements, addition of parking, and public use of the sports fields. Four of the Master Plan elements would address athletic program needs including replacement of the gymnasium, new field house, new tennis center, and new fitness center.

The Campus Master Plan is anticipated to be implemented over a 20-year period between 2017 and 2037. Based on information provided by the University, over the next 6-years or by 2022, an increase of approximately 370 students is projected for the Kirkland campus[1] resulting in a total campus population of 1,600 students. In 20-years (2037), the campus student population is anticipated to increase by approximately 770 students for a total of approximately 2,000 students. The growth in student population reflects both on-campus residents and commuters.

What existing public streets will serve the project and where is access proposed?

The Northwest University campus is located north of NE 53rd Street and east of 108th Avenue NE. Two driveways including the main driveway are located along 108th Avenue NE and 5 driveways are located along NE 53rd Street. The Master Plan would not change the number of access points to the Campus.

Is the site currently served by public transit?

Transit service in the study area is provided by King County Metro Transit and Sound Transit. The nearest bus stop to the campus is located along 108th Avenue NE approximately 250 feet north of the main driveway at NE 55th Lane. This bus stop is served by routes 255 and 540. An additional bus stop is provided at the NE 53rd Street intersection with 108th Avenue NE, but only serves route 255.

How many new parking spaces are proposed and how many existing spaces would be eliminated?

The master plan would construct between 370 and 470 additional parking spaces and eliminate approximately 120 parking spaces. The net increase in campus parking would be between 250 and 350 parking spaces. Specific, parking supply would be determined during the building permit phase of the Master Plan and would take into consideration projected parking demand based on enrollment and the specific building uses.

The existing parking supply could accommodate the anticipated future peak parking demand with the Master Plan. With build-out of the Master Plan, parking utilization for the campus would be approximately 90 percent if no new parking was constructed or 75 percent with an additional 250 parking spaces. Provision of parking with the Master Plan would help distribute the location of parking spaces within the campus as well as provide more conveniently located parking for the proposed uses to help minimize off-campus parking.

1 The campus student population reflects the total headcount of students who attend classes on the Kirkland campus. It does not include online students or students attending Northwest University at other campus locations.

How many daily vehicular trips would the project generate and when would peak traffic volumes occur?

Build-out of the Master Plan would generate 3,820 net new daily trips to and from the campus. The peak volumes to and from the campus are expected to occur during the weekday PM peak hour with the Master Plan resulting in approximately 460 net new PM peak hour trips.

What Transportation impacts are anticipated, if any?

Intersection impacts are identified at the following locations:

- 116th Avenue NE / NE 70th Place
- 108th Avenue NE / NE 68th Street
- 108th Avenue NE / NE 53rd Street

In addition, the Master Plan would result in the following neighborhood impacts:

- Contribution to Speeding Traffic along NE 53rd Street
- Increase Conflicts at 108th Avenue NE/NE 53rd Street Intersection
- Increase in Neighborhood Cut-Through Traffic
- Potential for on-street parking within the neighborhood

What measures are proposed to reduce or control traffic impacts?

Potential mitigation measures include:

- Intersection Improvements
- Traffic Calming
- Parking / Internal Campus Connectivity
- Event Management

In addition, the University would be responsible for payment of City of Kirkland transportation impact fees to mitigate general transportation related impacts of the Master Plan.

Intersection improvements could include contribution towards the 6th Street Corridor Study or improvements identified as part of this study and installation of a traffic signal at the 108th Avenue NE/NE 53rd Street intersection. It is anticipated that a traffic signal would be warranted at this intersection with the first phase of the Master Plan.

The proposed traffic signal would help reduce neighborhood cut-through traffic by providing better access via NE 53rd Street. In addition, the University could also contribute a proportional share to traffic calming improvements along NE 53rd Street as well as within the neighborhood. Depending on the traffic calming measures that are implemented such as speed humps, speed cushions, curb extension, or other measures, vehicle speeds are likely to be reduced.

Potential parking impacts to the neighborhood could be mitigated by:

- Providing additional internal pedestrian connections from parking lots to buildings and campus facilities.
- Assign campus population to specific parking lots to reduce potential parking in the neighborhood or moving vehicles between classes.

- Increase parking permit costs to deter student driving and potentially increase use of non-motorized and transit modes.

Lastly, an event management plan could be implemented to reduce on-campus congestion, excess vehicle circulation by drivers unfamiliar with the campus and the potential for parking within the neighborhood. Potential measures include:

- The assignment of specific event/visitor parking lots
- On-campus wayfinding signage directing drivers to specific parking areas (this is already done by the University during events)
- Active enforcement of any permanent and/or temporary parking restrictions
- Posting of no parking signage along NE 53rd Street during events and monitoring neighborhood parking

Introduction

The purpose of this transportation impact analysis (TIA) is to identify potential transportation-related impacts to the surrounding roadway network associated with the proposed Northwest University Master Plan. Mitigation measures are identified that would offset or reduce State Environmental Policy Action (SEPA) impacts where required based on City of Kirkland standards.

Northwest University is a regionally accredited, Christian institution awarding associate, bachelor's, master's, and doctoral degrees. The main campus is located in Kirkland's Central Houghton neighborhood with satellite campuses in Kirkland north of the main campus, in Sacramento, California, and Salem, Oregon. In addition, the University offers online programs.

Northwest University also has an extensive sports program. The University is a member of the Cascade Collegiate Conference and the National Association of Intercollegiate Athletics (NAIA). The athletics program currently includes soccer, volleyball, basketball, softball, cross country, and track & field. Many of the existing athletic facilities are in need of upgrades including the gymnasium, which are addressed through the master plan elements.

The focus of the master plan is the Northwest University main campus located at 5520 108th Avenue NE. The main campus offers undergraduate, graduate, and adult evening classes. The current enrollment is approximately 1,200 students with about 900 undergraduates and 300 graduate/adult evening class students. There are approximately 650 students living on-campus. Figure 1 illustrates the location of the campus and its surrounding vicinity. As noted above, due to the graduate class schedules and evening classes, not all students attend the campus on a daily basis.

Proposed Master Plan Elements

Key elements of the proposed Master Plan include the addition of 4 new buildings, replacement of 3 existing buildings and associated improvements, addition of parking, and public use of the sports fields. Four of the Master Plan elements would address athletic program needs including replacement of the gymnasium, new field house, new tennis center, and new fitness center.

The Campus Master Plan is anticipated to be implemented over a 20-year period between 2017 and 2037. Based on information provided by the University and assuming growth continues to occur consistent with the current campus trends, over the next 6-years or by 2022, an increase of approximately 370 students is projected for the Kirkland campus[2] resulting in a total campus enrollment of 1,600 students. In 20-years (2037), the campus student population is anticipated to increase by approximately 770 students for a total of approximately 2,000 students. This growth in student population reflects both on-campus residents and commuters.

The completion of individual projects within the Master Plan would ultimately depend on funding. The Master Plan includes 8 different phases. Descriptions of each phase, the approximate gross floor area and timeline are summarized in Table 1.

2 The campus student population reflects the total headcount of students who attend classes on the Kirkland campus. It does not include online students or students attending Northwest University at other campus locations.

Site Vicinity & Study Intersections

Northwest University Master Plan

FIGURE

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Table 1. Northwest University Master Plan Development Phasing

Phase	Description	Timing of Phase	Proposed Development	Existing Development Removed	Net New Development
1	Tennis Center	2017-2020	59,300 sf[1]	0 sf	59,300 sf
2	Gymnasium (Pavilion)	2019-2022	38,000 sf	-23,500 sf	14,500 sf
3	Welcome Center (Pecota Center)	2019-2020	43,400 sf	-7,400 sf	36,000 sf
4	Residence Hall[2]	2021-2024	85,100 sf	0 sf	85,100 sf
5	Upgrade Existing Fields / New Field House	2021-2024	3,500 sf	0 sf	3,500 sf
6	Chapel Expansion	2022-2024	3,000 sf	0 sf	3,000 sf
7	Fitness Center	2029-2032	21,400 sf	0 sf	21,400 sf
8a/8b/8c	Theater and Academic Building (Ness Academic Center)	2031-2037	71,000 sf	-33,400 sf	37,600 sf
	Total		324,700 sf	-64,300 sf	260,400 sf

Notes: sf = square-footage
1. Gross floor areas shown for each phase are rounded up to the nearest 100 square feet and only include useable building area not parking facilities.
2. New residence hall would include approximately 172 dorm rooms with about 300 beds.

As shown in Table 1, the Campus Master Plan proposes a net increase of approximately 260,400 square feet of development. The new residence hall (Phase 4) would include 172 rooms with approximately 300 beds. In addition, the Welcome Center would accommodate banquet facilities for up to 500 guests.

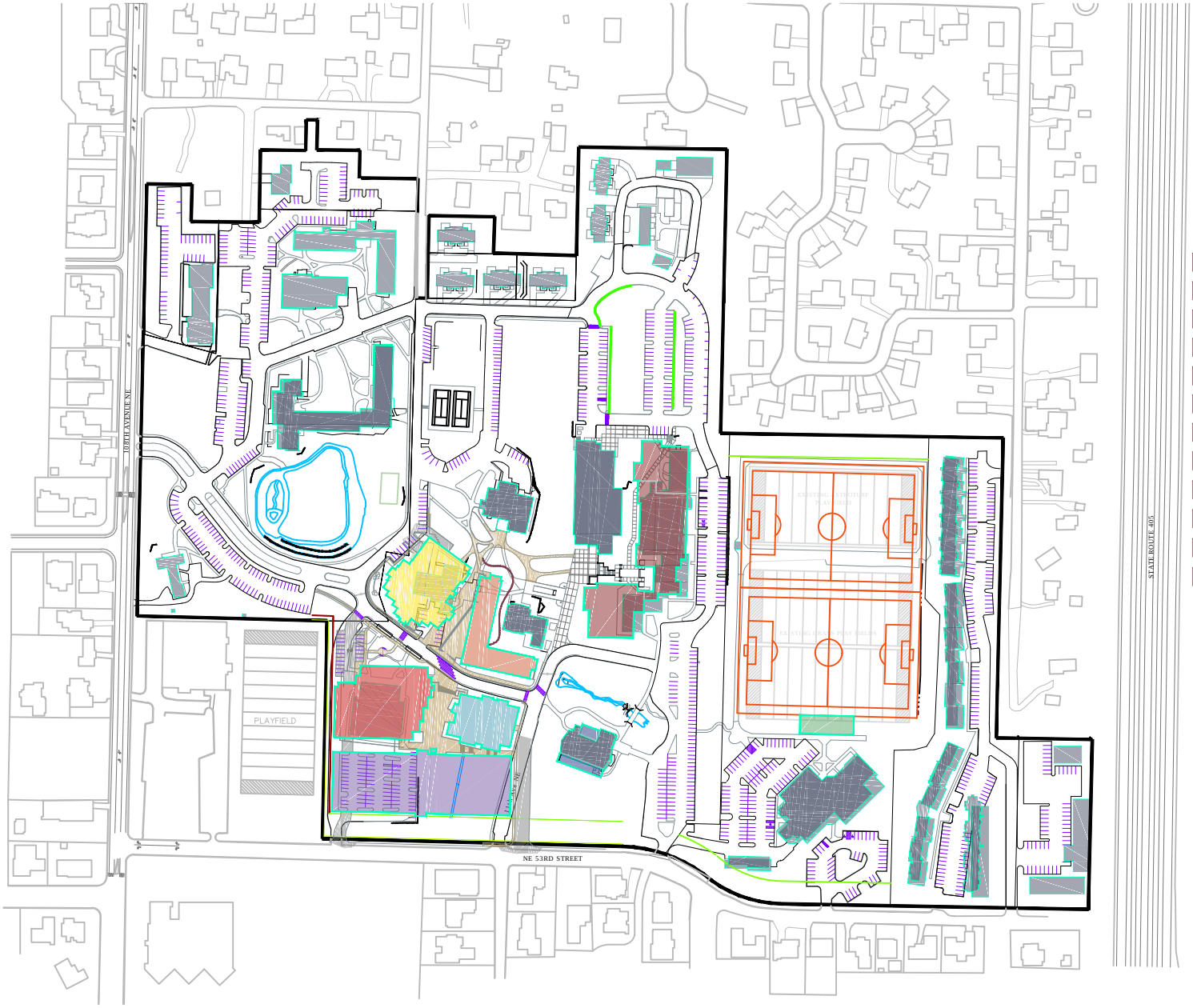
The campus currently has 1,168 parking spaces and approximately 250 to 350 new parking stalls would be added with buildout of the Master Plan. Most of the proposed parking would be located under new buildings including the tennis center, gymnasium (Pavilion), and Welcome Center. The actual amount of parking developed would be determined in conjunction with construction permitting for individual phases so that the additional parking supply that is constructed takes into consideration any refinements to the project description and any changes to parking needs that may occur over time.

Vehicular access to the campus would be maintained at the existing locations and no new access points are proposed. The 111th Avenue NE access would be realigned to the east to accommodate the proposed tennis center. A campus site plan showing the existing and proposed elements of the Master Plan are included on Figure 2.

Study Area and Scope

The transportation analysis scope and study area were identified through coordination with City of Kirkland, input received through multiple public open houses and City review criteria. The transportation elements evaluated include:

- Street System
- Traffic Volumes
- Traffic Operations
- Site Access and Neighborhood Context
- Parking
- Traffic Safety
- Non-motorized facilities
- Transit service



Preliminary Site Plan

Northwest University Master Plan

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Based on the City's *Transportation Impact Analysis Guidelines* (August 2014), the study intersections are those that meet the minimum intersection proportional share impact criteria or were identified by City staff. Appendix A contains the intersection proportional share calculation worksheets. The off-site study intersections include:

1. 6th Street S / Central Way
2. 6th Street S / Kirkland Way
3. 6th Street S / 9th Avenue S
4. NE 70th Street / I-405 Ramps
5. 116th Avenue NE / NE 70th Place
6. State Street S / NE 68th Street
7. 108th Avenue NE / NE 68th Street
8. 116th Avenue NE / I-405 Ramps
9. 132nd Avenue NE / NE 70th Place
10. 108th Avenue NE / NE 53rd Street

In addition, the 7 NU site access driveways were studied including:

A. 108th Avenue NE / Davis Driveway
B. 108th Avenue NE / NE 55th Lane (Main Driveway)
C. 110th Way / NE 53rd Street
D. 111th Avenue NE / NE 53rd Street
E. 111th Lane NE / NE 53rd Street
F. Barton Driveway / NE 53rd Street
G. 114th Avenue NE / NE 53rd Street

Consistent with the City TIA guidelines, the transportation analysis focuses on the weekday AM and PM peak commute periods (7:00 a.m. to 9:00 a.m. and 4:00 to 6:00 p.m.). The analysis summarized in the following sections describes existing (2016) conditions within the project vicinity, forecast future without-project conditions, and future with-project conditions. Future conditions were analyzed for a 2022 horizon year consistent with the City of Kirkland's six-year transportation concurrency horizon and 2037 conditions consistent with the anticipated buildout of the Master Plan. Forecast impacts are identified by comparing without-project impacts (i.e., assuming that student enrollment will remain equal to existing conditions) to with the master plan impacts with increased campus enrollment and completion of the proposed tennis center and public use of the campus sports fields.

Based on additional feedback from the City and community members, a neighborhood focused transportation evaluation was also conducted. The analysis focused on campus-related cut-through traffic north and south of the University and the transportation context and impacts to NE 53rd Street adjacent to the campus.

Existing Conditions

This section describes existing conditions within the identified study area. Characteristics are provided for the street system, traffic volumes, traffic operations, site access and surrounding neighborhood, parking, traffic safety, non-motorized facilities, and transit.

Street System

The Northwest University campus is located north of NE 53rd Street and east of 108th Avenue NE. Table 2 summarizes the characteristics of the major streets in the vicinity of the campus. As shown on Figure 1 and in Table 2, the site is surrounded by neighborhood collectors with sidewalks and bicycle facilities provided in the immediate vicinity of the campus.

Table 2. Study Area Existing Street System Summary

Roadway	Arterial Classification[1]	Posted Speed Limit	Number of Travel Lanes	Parking	Sidewalks	Bicycle Facilities
I-405	Urban Interstate	60 mph	10 lanes[2]	No	No	No
NE 68th Street	Secondary Arterial	30 mph	2 to 3 lanes	No	Yes	Yes
132nd Avenue NE	Secondary Arterial	30 mph	2 to 3 lanes	No	Yes	Yes
116th Avenue NE	Collector Arterial	35 mph	2 to 4 lanes	No	Yes	Yes
State Street S	Collector Arterial	30 mph	2 lanes	Yes	Yes	Yes
108th Avenue NE	Neighborhood Collector	30 mph	2 to 3 lanes	No	Yes	Yes
NE 53rd Street	Neighborhood Collector	25 mph	2 lanes	Yes	Yes	No
6th Street S	Secondary Arterial	30 mph	2 lanes	Yes	Yes	Yes

1. Based on Washington State Department of Transportation (WSDOT) and City of Kirkland classifications.
2. A total of 10 lanes with 3 general purpose and 2 high occupancy vehicle/toll lanes are provided in the vicinity of the NE 70th Street interchange.

Traffic Volumes

The City of Kirkland provided existing (2016) weekday PM peak traffic counts at several of the off-site study intersections. Additional weekday PM peak turning movement counts were conducted at the remaining study intersections and driveways in March and April 2016. Weekday AM peak period traffic counts were also conducted at all study intersections and driveways in March and April 2016. Existing weekday AM and PM peak commute hour traffic volumes used for this analysis are summarized on Figure 3 with detailed traffic count data provided in Appendix B.

Traffic Operations

Traffic operations at the off-site study intersections were evaluated and are characterized through an intersection level of service (LOS) analysis. LOS is a widely applied analysis technique for measuring the quality of traffic flow through intersections and comparing resulting traffic operations to adopted standards.

LOS values range from LOS A indicating free-flow traffic to LOS F indicating extreme congestion and long vehicle delays. Existing delays and LOS values were calculated using *Highway Capacity Manual* methods and the Synchro (version 9.1) software program. Appendix C provides a more detailed explanation of intersection LOS. This method uses peak hour traffic volumes, intersection geometry, intersection control, and roadway characteristics as inputs to evaluate operations. All existing signal timing parameters were provided by the City of Kirkland and Washington State Department of Transportation

(WSDOT). Table 3 summarizes the existing AM and PM peak hour intersection operations. Detailed LOS worksheets are provided in Appendix D. The City has an adopted LOS D standard and WSDOT has an adopted Mitigated LOS E [3] standard in the study area.

Table 3. Existing Weekday Peak Hour Intersection LOS Summary

Intersection	LOS Standard	AM Peak Hour			PM Peak Hour		
		LOS[1]	Delay[2]	WM[3]	LOS[1]	Delay[2]	WM[3]
1. 6th Street S / Central Way	D	F	98	-	C	31	-
2. 6th Street S / Kirkland Way	D	C	17	-	D	31	-
3. 6th Street S / 9th Avenue S	D	E	46	WB	F	57	WB
4. NE 70th Street / I-405 Ramps	E	E	78	-	D	41	-
5. 116th Avenue NE / NE 70th Place	D	D	54	-	C	27	-
6. State Street S / NE 68th Street	D	B	17	-	C	29	-
7. 108th Avenue NE / NE 68th Street	D	E	67	-	E	63	-
8. 116th Avenue NE / I-405 Ramps[4]	E	C	24	-	E	56	-
9. 132nd Avenue NE / NE 70th Place	D	C	26	-	D	50	-
10. 108th Avenue NE / NE 53rd Street	D	F	63	WBL	F	54	WBL

Note: Shaded intersections operate below City of Kirkland or WSDOT LOS standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WB = westbound approach and WBL = westbound left-turn movement.
4. Analyzed in HCM 2000 due to intersection configuration and signal phasing.

As highlighted in the above table, several existing intersections that operate below City and WSDOT LOS standards under either weekday AM or PM peak hour conditions. These include the 6th Street S/Central Way, 6th Street S/9th Avenue S, 108th Avenue NE/NE 68th Street, 116th Avenue NE/I-405 Ramps, and 108th Avenue NE/NE 53rd Street intersections.

Site Access & Neighborhood Context

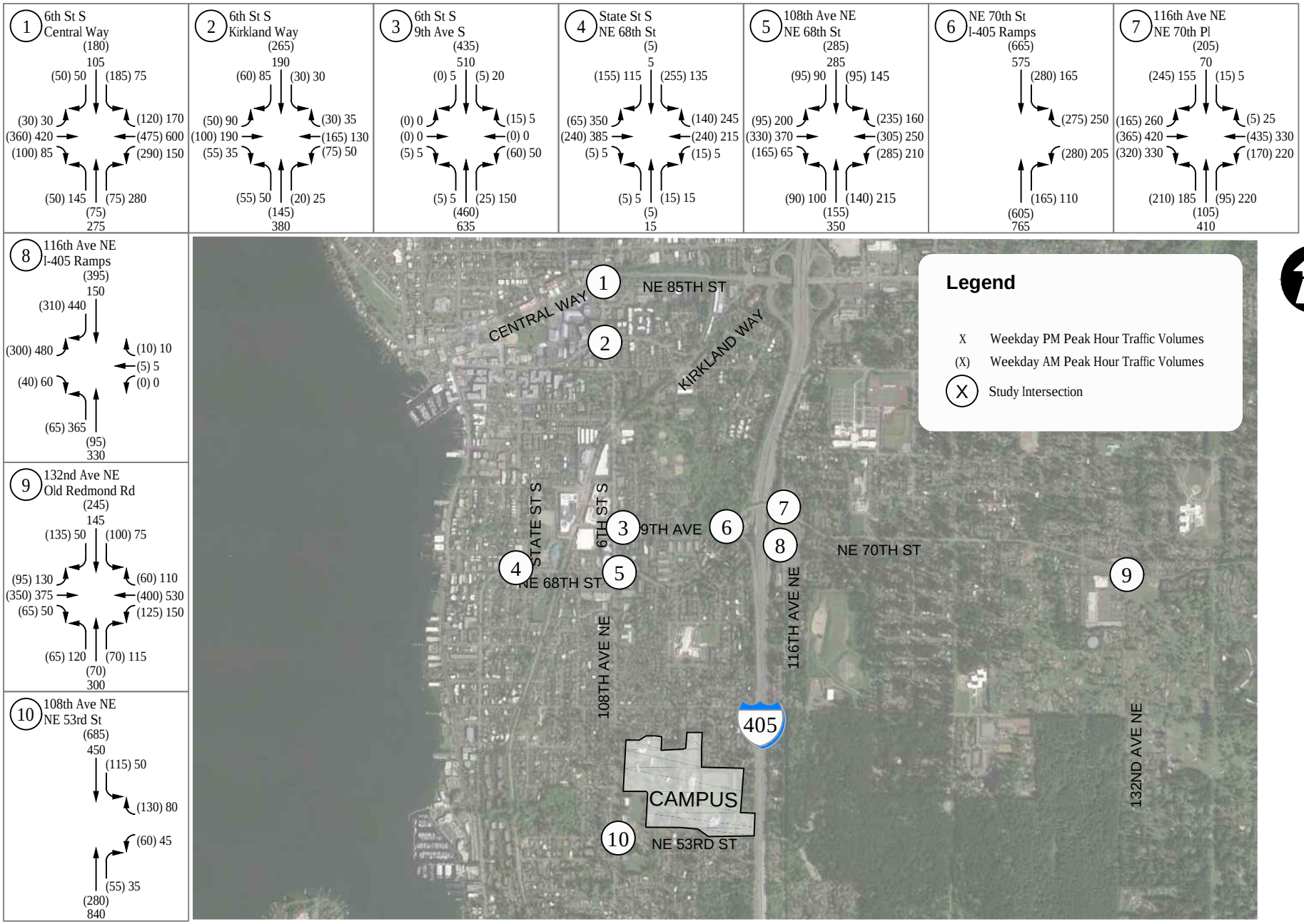
The Northwest University Campus is bordered by 108th Avenue to the west and NE 53rd Street to the south. The University currently has 7 driveways with 2 located along 108th Avenue NE and 5 along NE 53rd Street. These driveways are identified as locations A through G on Figure 4. The following sections summarize existing site access traffic volumes, driveway operations, and traffic conditions in the neighborhood surrounding the campus.

Driveway Traffic Volumes

Weekday AM and PM peak hour traffic volumes at the driveways were collected in March and April 2016. Counts were collected over 3 different weekdays in support of forecasting the campus vehicular trip generation that is described in the future with-project section. To provide a conservative analysis, the date when the highest overall campus traffic volumes were observed during the 3 days[4] of collection was selected for evaluating site access traffic operations. Existing weekday AM and PM peak hour volumes used for this analysis are summarized on Figure 4. Note that the 108th Avenue NE/NE 53rd Street intersection is also shown since this is a primary access intersection to the 5 campus driveways along NE 53rd Street.

[3] The study area is within a Tier 1 inner urban areas, which is defined as a 3-mile buffer around the most heavily traveled freeways (e.g., I-405) and all designated urban areas. The LOS standard for Tier 1 routes is LOS E/Mitigated meaning that congestion should be mitigated when the weekday PM peak hour LOS falls below E. *Level of Service Standards for Washington State Highways. January 1, 2010.*

[4] The highest combined weekday AM and PM peak hour campus generated traffic occurred on Wednesday April 13, 2016.



Existing Off-Site AM & PM Peak Hour Traffic Volumes

FIGURE 3

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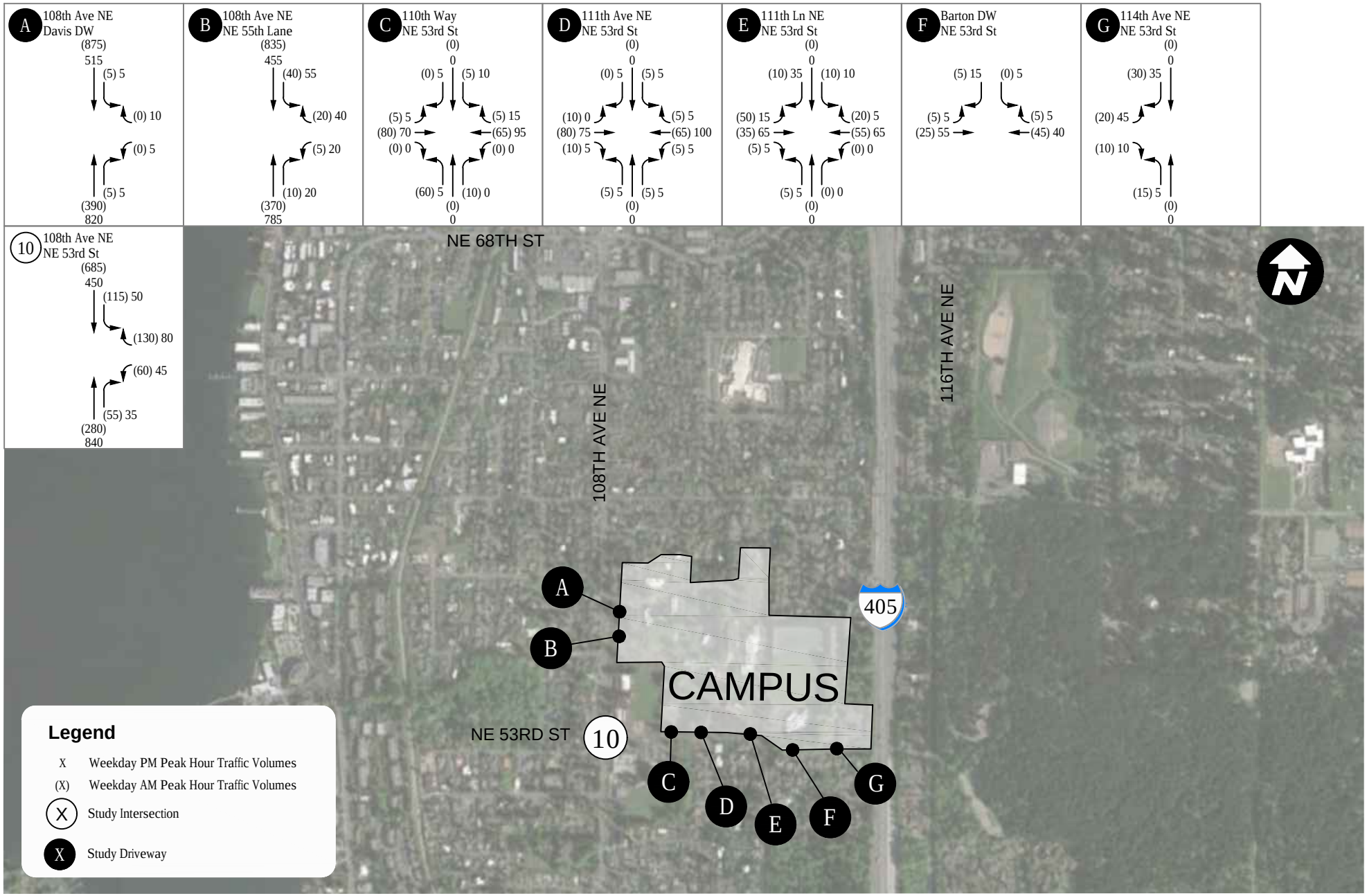

Existing Site Access AM & PM Peak Hour Traffic Volumes

FIGURE 4

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Driveway Traffic Operations

Driveway traffic operations were evaluated based on the HCM 2010 methodologies using the Synchro 9.1 software program consistent with the analysis of off-site study intersections. Weekday AM and PM peak hour site access operations are summarized in Table 4.

Table 4. Existing Weekday AM & PM Peak Hour Site Access LOS Summary

	AM Peak Hour			PM Peak Hour		
Intersection	**LOS[1]**	**Delay[2]**	**WM[3]**	**LOS[1]**	**Delay[2]**	**WM[3]**
A. 108th Avenue NE / Davis Driveway	A	8	SBL	C	18	WB
B. 108th Avenue NE / 55th Lane NE (Main Driveway)	B	13	WB	C	20	WB
C. 110th Way / NE 53rd Street	B	10	NB	B	10	NB
D. 111th Avenue NE / NE 53rd Street	B	10	SB	A	10	SB
E. 111th Lane NE / NE 53rd Street	B	11	NB	B	10	NB
F. Barton Driveway / NE 53rd Street	A	9	SB	A	9	SB
G. 114th Avenue NE / NE 53rd Street	A	9	SB	A	10	NB
10. 108th Avenue NE / NE 53rd Street	F	63	WBL	F	54	WBL

Note: Shaded intersections operate below City of Kirkland LOS standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where SBL = southbound left-turn movement, WB = westbound approach, NB = northbound approach, SB = southbound approach, and WBL = westbound left-turn movement.

As shown in Table 4, all existing campus driveways currently operate at LOS C or better during both weekday peak hours. As shown previously in Table 3, the westbound left-turn lane on NE 53rd Street at 108th Avenue NE currently operates at LOS F during the weekday AM and PM peak hours.

Neighborhood Traffic Conditions

Existing traffic conditions in the neighborhood surrounding the campus were reviewed. Specifically, the review included a vehicle speed study along NE 53rd Street, neighborhood cut-through traffic study, and school activity in the vicinity of the NE 53rd Street/108th Avenue NE intersection.

NE 53rd Street Speed Study

Vehicle speeds along NE 53rd Street near the intersection with 111th Avenue NE were measured using a pneumatic tube traffic counter over a 7-day period in April/May 2016.[5] The observed vehicle speeds were then reviewed to identify the median and 85th-percentile speeds to assess whether vehicle speeds are notably greater than the posted speed limit. The posted speed limit along this corridor is 25 mph.

The median speed value is the speed at which 50 percent of all traffic is traveling at or below, and is also known as the 50th-percential speed. This statistical measure is typically used as a point of reference in understanding the prevailing conditions. The median speeds along a corridor should typically be under the posted speed limit. The 85th percentile speed is often used as a starting point for determining whether a speeding issue is present, and takes into account that 15 percent of drivers may be traveling much faster or slower than the posted speed. Typically, the 85th percentile speed should be approximately 5 mph over or under the posted speed limit.

[5] April 26 through May 2, 2016.

The median and 85th-percential speed results of the speed study are summarized in Table 5.

Table 5. NE 53rd Street Speed Study Summary – East of 111th Avenue NE

Direction	Speed Limit	Median Speed	85th Percentile Speed
Eastbound NE 53rd Street	25 mph	28.0 mph	32.5 mph
Westbound NE 53rd Street	25 mph	27.3 mph	31.8 mph

As shown, the median speed for both directions is approximately 28 miles per hour, while the 85th percentile speed is approximately 32 miles per hour. The MUTCD generally suggests that the 85th percentile speed be within 5 mph of the posted speed limit. The results show that the 85th percentile speed is approximately 7 mph above the posted speed limit indicating excessive speeds along this section of NE 53rd Street.

Neighborhood Cut-Through Traffic

With existing congestion and queuing along 108th Avenue NE during weekday AM and PM peak hours, some drivers may choose to use neighborhood streets to avoid this congestion. Based on the neighborhood roadway network east of 108th Avenue NE and south of NE 68th Street, coordination with City staff, and feedback from the neighborhood, two cut-through routes were identified for further review including:

- **North Cut-Through Route – NE 60th Street to 111th Avenue NE, then to NE 65th Street and NE 68th Street further north**
- **South Cut-Through Route – 111th Avenue NE to NE 48th Street to 108th Avenue NE**

To assess how much of this cut-through traffic is related to the campus, automatic license plate recognition (ALPR) technology was used to conduct this study. Cameras were placed along the NE 48th Street and NE 65th Street as well at the three highest volume campus driveways and license plates were matched to identify the number of campus drivers using either of the neighborhood cut-through routes. The number of observed cut-through vehicles related to the campus are summarized in Table 6.

Table 6. Weekday Peak Hour Neighborhood Cut-Through Traffic Volumes Summary

Route	AM Peak Hour Campus Cut-Through	PM Peak Hour Campus Cut-Through
North Neighborhood Streets		
Inbound to Campus	2 vehicles	4 vehicles
Outbound from Campus	0 vehicles	4 vehicles
South Neighborhood Streets		
Inbound to Campus	0 vehicles	1 vehicle
Outbound from Campus	0 vehicles	0 vehicles

As shown in Table 6, the observations indicate that neighborhood cut-through traffic specifically related to the campus is relatively minimal. There were fewer than ten vehicles per hour observed traveling between the campus and neighborhood routes to and from the north via 110th Avenue NE during the weekday peak hours. For routes through the neighborhood south of campus, no cut-through traffic was observed during the weekday AM peak hour and only 1 vehicle was observed during the weekday PM peak hour travelling to/from the campus. Based on traffic counts with the neighborhoods, campus related cut-through traffic was observed to be approximately 3 percent or less during the weekday peak hours. In general, these observations show no notable campus traffic volumes that travel these cut-through routes during peak conditions.

108th Avenue NE/NE 53rd Street School Activity

Several school-related facilities exist in the vicinity of the 108th Avenue NE/NE 53rd Street intersection including:

- Lake Washington School District's Emerson K-12 school on the southeast corner
- Puget Sound Adventist Academy private school on the northeast corner
- Kirkland Children's School day care, preschool and kindergarten classes just north of NE 53rd Street on the west side of 108th Avenue NE

The travel activity for these 3 uses generally peak at similar times of day and include walking, passenger car drop-off/pick-up, transit, and school bus activities. The peak periods for activity for these 3 sites typically fall within the morning commute periods when children arrive at these facilities and again in the mid- to late- afternoon hour when they depart. Activities near the 108th Avenue NE/NE 53rd Street intersection that influence transportation conditions at this location include:

- Northbound and southbound 108th Avenue NE bus stops with shelters for King County Metro
- A mid-block crosswalk with overhead flashing warning lights across 108th Avenue NE between the east and west legs of NE 53rd Street
- Observed school bus loading northbound and southbound on 108th Avenue NE immediately south of both east and west legs of 53rd Avenue NE

Activity at this intersection was observed during both the morning peak (approximately 7:30 to 9:00 a.m.) and mid-afternoon peak periods (approximately 2:00 to 4:00 p.m.). The observations noted various short-term congestion and blockages associated with school-related travel. This includes:

- Northbound Metro buses stopping at NE 53rd Street to load/unload
- Westbound NE 53rd Street queues forming from yielding to both 108th Avenue NE vehicle traffic and pedestrians using the mid-block crosswalk
- On-site queuing at the Kirkland Children's School extending onto 108th Avenue NE
- School buses stopping on 108th Avenue NE

Parking

The existing parking supply was inventoried and on-campus parking utilization was observed in March 2016. The existing campus contains 1,168 parking spaces designated for campus use. Parking utilization counts were conducted hourly between 9 a.m. and 1 p.m. during a midweek day when school was in session. This time period represents when Northwest University class attendance is typically greatest. The observed peak campus parking utilization occurred between 10 and 11 a.m. with a total of 638 vehicles parked on campus or approximately 55 percent of the campus parking spaces occupied. Figure 5 summarizes the campus parking utilization during the peak period by lot. As shown on the figure, most of the parking lots are less than 85 percent utilized.

Figure 5. Peak Campus Parking Utilization (10 – 11 a.m.)

The campus neighbors have identified potential on-street parking issues. To understand, the level of campus-related on-street parking occurring within the neighborhood on weekdays that street parking was inventoried. Parking data was collected between 9 a.m. and 1 p.m. on two weekdays: (1) when the University was in-session and (2) during the University spring break. Comparing these two days provides an understanding of on-street parking characteristics was found that in the study area, parking demand was actually higher when school was not in session compared to a school session count which implies an insignificant on-street parking impact. When analyzing only the streets immediately adjacent to the campus along 114th Avenue, NE 50th Street, NE 53rd Street, and NE 59th Street, the parking demand was approximately 5% higher (~1-2 vehicles) during the school session counts, which also implies an insignificant impact.

Traffic Safety

The collision history within the study area was reviewed to identify any locations where adverse safety conditions may exist. Collision data provided by WSDOT for the most recent three-year period (January 1, 2013 through December 31, 2015) was reviewed. Table 7 summarizes the number of collisions at each of the study intersections.

Table 7. Three-Year Collision Summary – 2013 to 2015

Intersection	Control	Number of Collisions 2013	2014	2015	Annual Average	Collisions per MEV[1]	Critical Crash Rate
1. 6th Street S / Central Way	Signalized	4	3	1	2.7	0.31	0.78
2. 6th Street S / Kirkland Way	AWSC	0	2	8	3.3	0.71	1.12
3. 6th Street S / 9th Ave S	TWSC	0	0	0	0	0.00	0.00
4. NE 70th Street / I-405 Ramps	Signalized	2	7	1	3.3	0.62	0.86
5. 116th Avenue NE / NE 70th Place	Signalized	11	12	4	9.0	1.01	0.78
6. State Street S / NE 68th Street	Signalized	1	0	0	0.3	0.04	0.80
7. 108th Avenue NE / NE 68th Street	Signalized	8	4	4	5.3	0.56	0.77
8. 116th Avenue NE / I-405 Ramps	Signalized	3	5	6	4.7	0.70	0.82
9. 132nd Avenue NE / NE 70th Place	Signalized	1	7	3	3.7	0.47	0.80
10. 108th Avenue NE / NE 53rd Street	TWSC	0	2	1	1.0	0.182	0.184

Source: WSDOT, 2016.
1. The number of collisions per Million Entering Vehicles (MEV) assuming weekday PM peak hour traffic is approximately 10 percent of daily traffic.

A review of the traffic safety within the study area was completed by compiling crash rates (i.e., collisions per million entering vehicles) by study intersection to identify locations with potential safety issues. Based on the methodology found in Chapter 4 of the *Highway Safety Manual* (AASHTO, 2010), observed and critical crash rates at each study intersection were compared to identity where observed rates were higher than the calculated critical rate. The study intersections were grouped into three categories for calculating critical crash rates: (1) traffic signals, (2) side-street stop-control, and (3) all-way stop-control intersections. As shown in the table, the 116th Avenue NE / NE 70th Street intersection was the only intersection where the observed crash rate was greater than the critical crash rate.

Of the 27 total collisions that occurred at this location during the three-year period, however only 4 of the collisions occurred in 2015. The most common types were left-turn related (15), followed by rear-end (7), and angled (2). Of the 15 left-turn related collisions, 13 involved the westbound left turn movement. The left-turn signal phasing for this movement is currently protected/permitted. Over the last year collisions at this location have decreased with a total of 4 collisions and only 1 left-turn related collision in 2015. The City regularly monitors traffic safety to understand patterns and the need for safety improvements. Given that collisions, have recently decreased at this location no collision pattern is noted. This intersection would continue to be monitored by the City and if necessary safety improvements such as protected left-turn phasing could be implemented.

None of the reported collisions at this location involved a serious injury or a fatality. There were no pedestrian-related or bicyclist-related collisions that were reported within the study area during this period.

Non-Motorized Facilities

Separated pedestrian facilities are provided throughout the study area. Sidewalks are provided on both 108th Avenue NE and NE 53rd Street within the immediate site vicinity of the campus. Further north of the site, NE 68th Street and 6th Street S also provide sidewalks on both sides of the street. A mid-block crosswalk with an overhead flashing warning lights is provided across 108th Avenue NE between the east and west legs of NE 53rd Street. Marked crosswalks are also provided across NE 53rd Street and 55th Lane NE (the main campus driveway) at 108th Avenue NE.

Separate bicycle lanes are provided along the majority of 108th Avenue NE with shared lanes along some portions where right-of-way is limited. North of NE 68th Street, 6th Street S provides dedicated bicycle lanes on both sides of the street. East of 108th Avenue NE, NE 68th Street also provides bicycle lanes on both sides of the street.

Transit Service

Transit service in the study area is provided by King County Metro Transit and Sound Transit. The nearest bus stop to the campus is located along 108th Avenue NE approximately 250 feet north of the main driveway at NE 55th Lane. This bus stop is served by routes 255 and 540. An additional bus stop is provided at the NE 53rd Street intersection with 108th Avenue NE, but only serves route 255.

Route 255 provides service from the Brickyard Park-and-Ride to Kirkland Transit Center to Downtown Seattle running 7 days a week. Service is provided on weekdays from approximately 5 a.m. to 11 p.m. with 15-minute headways during the weekday PM peak hour. Weekend service is also provided from approximately 6 a.m. to midnight with 30-minute peak headways.

Route 540 travels between the University District and Kirkland running weekdays only. Service is provided from approximately 7 a.m. to 7:20 p.m. with 15-minute headways during the weekday PM peak hour.

Future Without-Project Conditions

This section describes future without-project conditions within the identified study area. Future conditions were analyzed for a 2022 horizon year consistent with the City of Kirkland's six-year transportation concurrency horizon and 2037 conditions consistent with the anticipated buildout of the Master Plan. The following sections summarize the planned changes to the street system, future forecasted traffic volumes, traffic operations, site access and the neighborhood context.

Street System

The adopted Kirkland *2015-2020 Capital Improvement Program* (CIP) and current project website were reviewed to identify funded transportation improvements in the study area that would be completed by 2022 or 2037. In addition, the City of Kirkland's adopted *Transportation Master Plan*, November 2015, *City of Kirkland 2015 Comprehensive Plan Update & Totem Lake Planned Action – Final Environmental Impact Statement,* November 2015 and *City of Kirkland 2015 Comprehensive Plan Update & Totem Lake Planned Action – Draft Environmental Impact Statement* (DEIS)*,* June 2015 were also reviewed to understand potential long-range improvements that could impact 2037 conditions in the study area.

Planned funded improvements are along 6th Street in the study area at intersections with 9th Street S, Kirkland Way, and Central Way. The 6th Street S intersections at 9th Street and Kirkland Way are expected to be signalized by the end of 2016. Phase 2 improvements to the 6th Street S/Central Way intersection are planned for construction in 2017. The intersection improvements include a second westbound left-turn lane, a bicycle lane, and pedestrian improvements. These improvements were reflected in the evaluation of future 2022 and 2037 traffic operations.

In addition to these specific improvements described above, the CIP also includes funding for the 6th Street South Corridor Study, which will also include the 6th Street Corridor Study and Houghton/Everest Neighborhood Center Plan. The City has hired a consultant for this work and is in the process of scoping the study. This study will develop a corridor and neighborhood plan including transportation solutions to accommodate growth in the study area. These solutions may include policies (e.g., parking policies), projects (e.g., intersection improvements) and programs (e.g., bikeshare). Given constraints along the corridor project will generally focus on transit, bicycle, and pedestrian facilities and consider safety, geometrics, and other transportation conditions along the corridor.

The *Transportation Master Plan* identifies, as part of this long-range plan, that the City should engage with WSDOT to discuss improvements of the existing interchanges including at NE 70th Street. In addition, the 2015 Comprehensive Plan Update DEIS notes a potential improvement to the 116th Avenue NE/NE 70th Street (NE 72nd Place) intersection to provide a dedicated southbound right-turn pocket.

Traffic Volumes

Future (2022) weekday traffic volumes were forecast based on information provided by the City of Kirkland. City staff provided the 2022 weekday PM peak hour volumes at eight of the ten study intersections based on the City's travel demand model. Forecast at the 2 remaining off-site study intersections[6] were developed by applying a 2 percent per year growth rate to existing traffic volumes and adjusting results to account for balancing along the 6th Street, NE 68th Street, and 108th Avenue NE corridors to forecasts 2022 conditions. The City's

[6] 6th Street/9th Avenue S and 108th Avenue NE/NE 53rd Street forecasts were developed based on a 2 percent per year growth rate.

travel demand model does not include weekday AM peak hour forecasts. Future weekday AM peak hour traffic volumes were determined by applying a growth rate to the existing AM peak hour volumes. The growth rate was determined based on the weekday PM peak hour forecasts from the City's travel demand model. Forecast (2022) without-project weekday AM and PM peak hour traffic volumes are summarized on Figure 6.

Future 2037 traffic volumes were forecast based on growth rate of 1.3 percent per year estimated by comparing existing 2016 traffic counts and 2035 traffic forecast from the City's adopted Transportation Master Plan, 2015. This growth rate was then applied to the 2022 traffic volume forecasts to forecast 2037 weekday AM and PM peak hour traffic volumes. Forecast (2037) weekday AM and PM peak hour off-site study intersection traffic volumes are summarized on Figure 7.

Traffic Operations

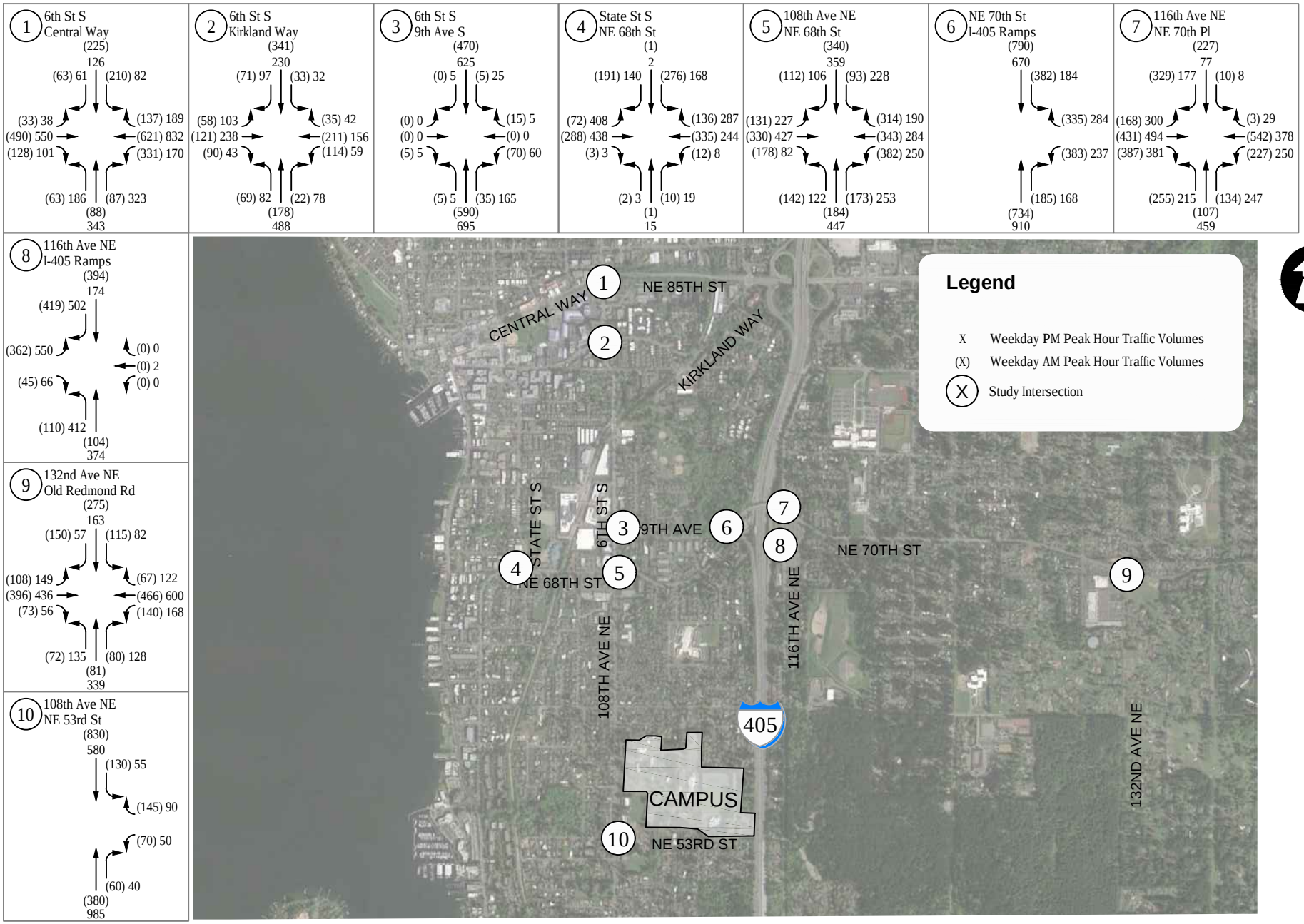
Traffic operations were evaluated for the forecast 2022 and 2037 without-project conditions using the LOS method described previously for existing conditions. All existing signal timing settings remained unchanged from existing conditions with the exception of the 6th Street intersections where the City has planned improvements. With completion of the planned second westbound-left lane at 6th Street/Central Way, traffic signal timing settings were optimized. The timing settings for the planned new traffic signals at 6th Street/Kirkland Way and 6th Street/9th Street S were also optimized.

Table 8 summarizes forecast 2022 without-project AM and PM peak hour intersection operations and Table 9 shows forecast 2037 operations. Detailed LOS worksheets are provided in Appendix D.

Table 8. Existing & Future Weekday Peak Hour LOS Summary

Intersection	LOS Standard	2016			2022		
		LOS[1]	Delay[2]	WM[3]	LOS[1]	Delay[2]	WM[3]
Weekday AM Peak Hour							
1. 6th Street S / Central Way	D	F	98	-	C	30	-
2. 6th Street S / Kirkland Way	D	C	17	-	A	10	-
3. 6th Street S / 9th Avenue S	D	E	46	WB	A	7	-
4. NE 70th Street / I-405 Ramps	E	E	78	-	F	168	-
5. 116th Avenue NE / NE 70th Place	D	D	54	-	F	114	-
6. State Street S / NE 68th Street	D	B	17	-	B	17	-
7. 108th Avenue NE / NE 68th Street	D	E	67	-	F	108	-
8. 116th Avenue NE / I-405 Ramps[4]	E	C	24	-	B	20	-
9. 132nd Avenue NE / NE 70th Place	D	C	26	-	D	41	-
10. 108th Avenue NE / NE 53rd Street	D	F	63	WBL	F	>180	WBL
Weekday PM Peak Hour							
1. 6th Street S / Central Way	D	C	31	-	D	48	-
2. 6th Street S / Kirkland Way	D	D	31	-	B	11	-
3. 6th Street S / 9th Avenue S	D	F	57	WB	A	7	-
4. NE 70th Street / I-405 Ramps	E	D	41	-	E	73	-
5. 116th Avenue NE / NE 70th Place	D	C	27	-	C	35	-
6. State Street S / NE 68th Street	D	C	29	-	D	52	-
7. 108th Avenue NE / NE 68th Street	D	E	63	-	E	76	-
8. 116th Avenue NE / I-405 Ramps[4]	E	E	56	-	F	81	-
9. 132nd Avenue NE / NE 70th Place	D	D	50	-	E	79	-
10. 108th Avenue NE / NE 53rd Street	D	F	54	WBL	F	128	WBL

Notes: Shaded intersections operate below City of Kirkland LOS D or WSDOT Mitigated LOS E standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WB = westbound approach and WBL = westbound left-turn movement.
4. Analyzed in HCM 2000 due to intersection configuration and signal phasing.



2022 Without-Project Off-Site AM & PM Peak Hour Traffic Volumes

FIGURE 6

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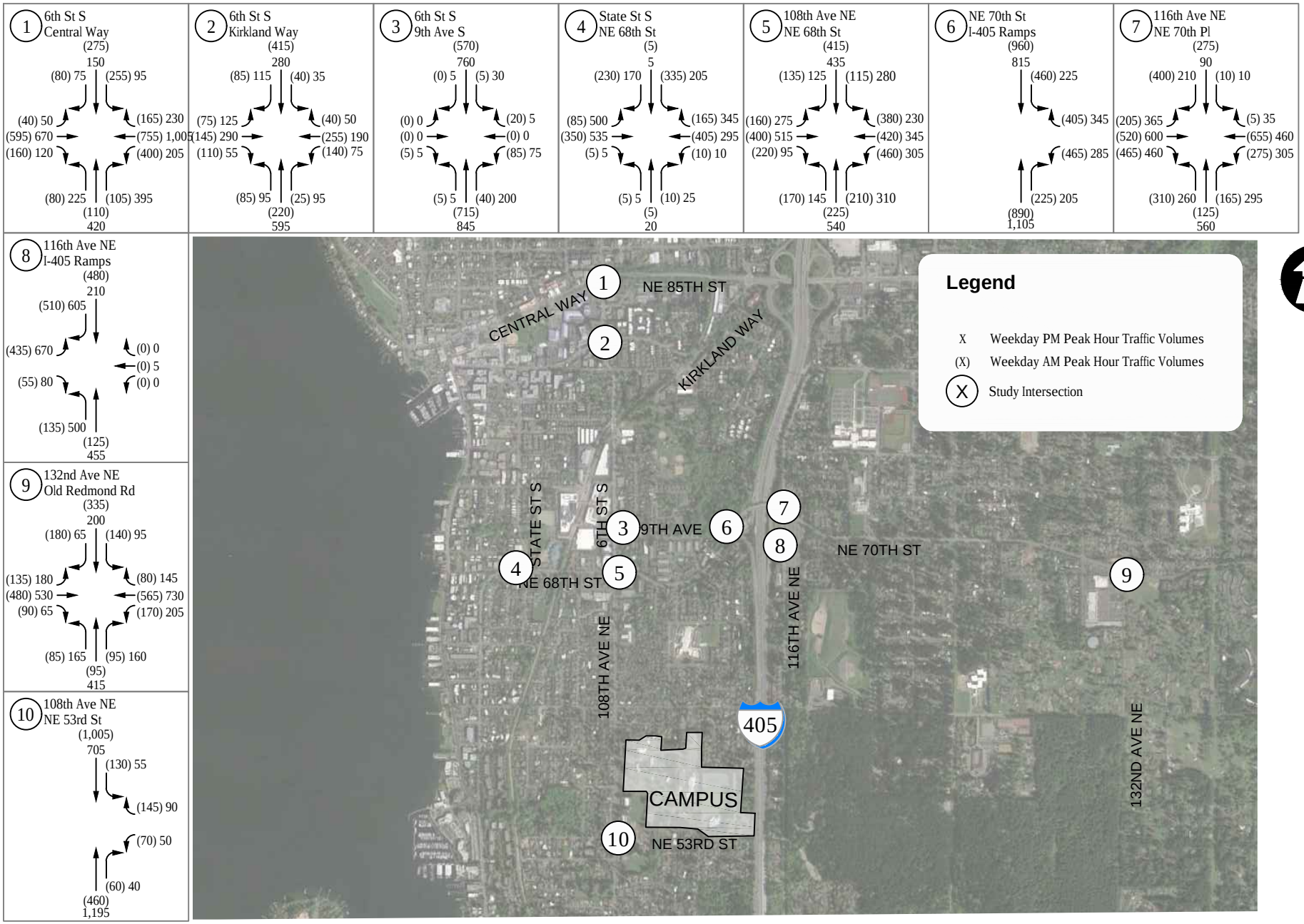

2037 Without-Project Off-Site AM & PM Peak Hour Traffic Volumes

FIGURE 7

Northwest University Master Plan

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As shown in Table 8, with future planned improvements by 2022, LOS at 2 of the study intersections along 6th Street would improve compared to existing conditions during the weekday AM and PM peak hour.

In addition, in 2022 without the Master Plan, traffic operations are anticipated to worsen at 4 study intersections during the weekday AM peak hour and 5 study intersections during the weekday PM peak hour compared to existing conditions. The following off-site study intersections would operate below their applicable LOS standard under forecast 2022 conditions:

- NE 70th Street / I-405 Ramps
- 116th Avenue NE / NE 70th Place
- 108th Avenue NE / NE 68th Street
- 116th Avenue NE / I-405 Ramps4
- 132nd Avenue NE / NE 70th Place
- 108th Avenue NE / NE 53rd Street

Table 9. Future 2037 Weekday AM & PM Peak Hour LOS Summary

Intersection	LOS Standard	AM Peak Hour			PM Peak Hour		
		LOS[1]	Delay[2]	WM[3]	LOS[1]	Delay[2]	WM[3]
1. 6th Street S / Central Way	D	D	54	-	F	88	-
2. 6th Street S / Kirkland Way	D	B	12	-	B	14	-
3. 6th Street S / 9th Avenue S	D	B	10	-	B	11	-
4. NE 70th Street / I-405 Ramps	E	F	>180	-	F	142	-
5. 116th Avenue NE / NE 70th Place	D	F	>180	-	E	66	-
6. State Street S / NE 68th Street	D	B	17	-	F	96	-
7. 108th Avenue NE / NE 68th Street	D	F	151	-	F	103	-
8. 116th Avenue NE / I-405 Ramps[4]	E	C	25	-	F	141	-
9. 132nd Avenue NE / NE 70th Place	D	F	88	-	F	145	-
10. 108th Avenue NE / NE 53rd Street	D	F	>180	WBL	F	>180	WBL

Notes: Shaded intersections operate below City of Kirkland LOS D or WSDOT Mitigated LOS E standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WB = westbound approach and WBL = westbound left-turn movement.
4. Analyzed in HCM 2000 due to intersection configuration and signal phasing.

As shown in Table 9, eight of the ten off-site study intersections are forecast to operate below their applicable LOS standard under either weekday AM or PM peak hour conditions with long-term growth projected by 2037. The results of the 2037 analysis are consistent with the City's *Transportation Master Plan*, which identified congestion and poor intersections operations with anticipated growth levels along key corridors including 6th Street, Central Way, and the area of the NE 70th Street interchange.

Site Access & Neighborhood Context

The following sections summarize forecast site access traffic volumes, driveway operations, and traffic conditions in the neighborhood surrounding the campus.

Driveway Traffic Volumes

As described in the analysis scope description, future without-project traffic conditions were assumed to include no growth in on-campus student enrollment. The impacts of future student growth, facilitated by the proposed expansion of the campus infrastructure is

documented in the Project Impact section of this study. Based on this no growth assumption, traffic volumes travelling to and from the campus were assumed to remain unchanged from existing conditions and background traffic volumes on NE 53rd Street and 108th Avenue NE were assumed to increase as previously described for the off-site study intersections.

Forecast weekday AM and PM peak hour traffic volumes at the site access driveways based on these assumptions are summarized on Figure 8 for 2022 conditions and Figure 9 for 2037 conditions.

Driveway Traffic Operations

Traffic operations under forecast future traffic volumes were evaluated consistent with the methodology previously described. Table 10 summarizes the 2022 forecast without-project AM and PM peak hour intersection operations for the campus driveways and Table 11 summarizes 2037 forecast operations.

Table 10. Future 2022 Weekday AM & PM Peak Hour Site Access LOS Summary

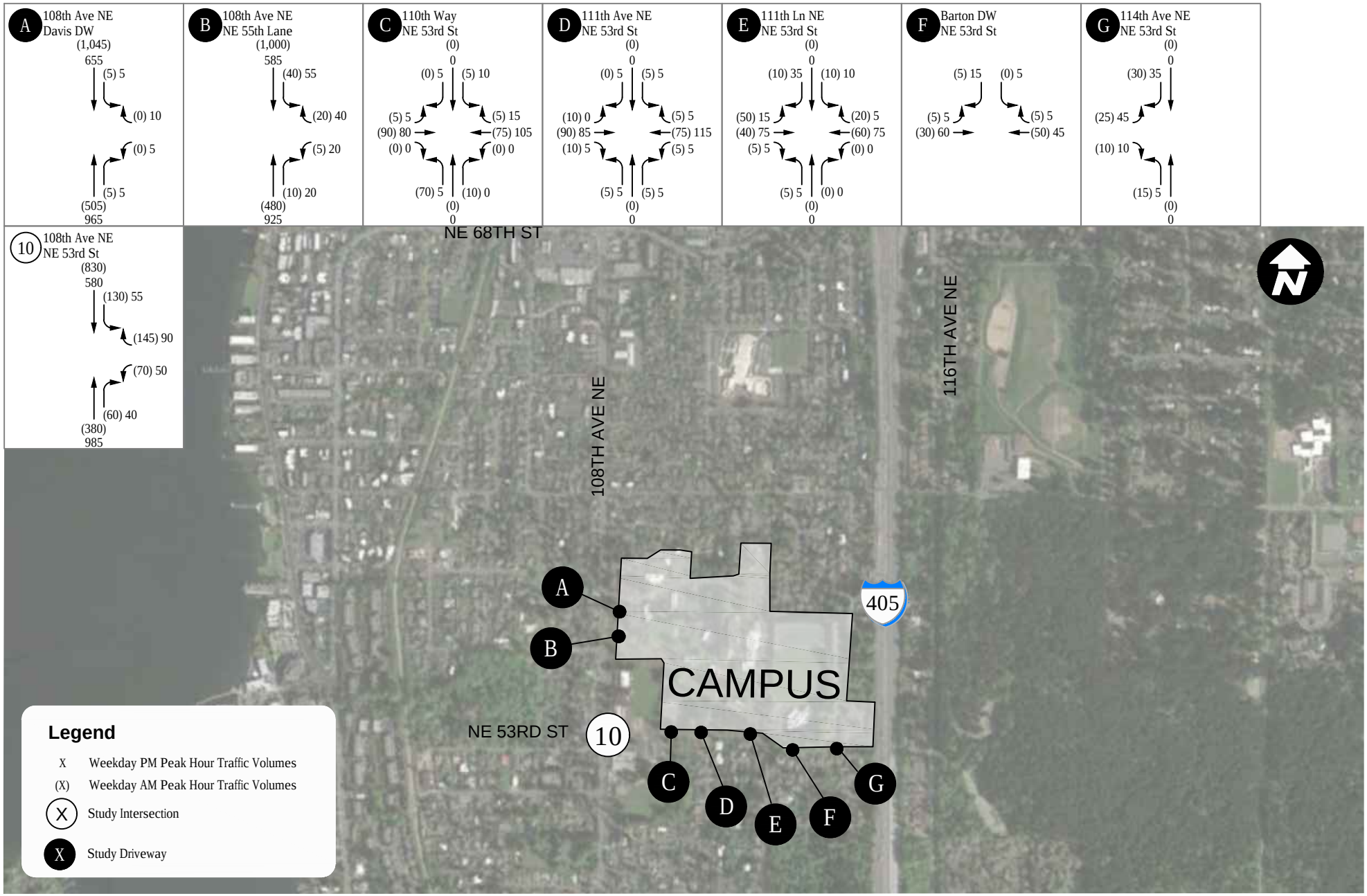
	AM Peak Hour			PM Peak Hour		
Intersection	**LOS[1]**	**Delay[2]**	**WM[3]**	**LOS[1]**	**Delay[2]**	**WM[3]**
A. 108th Avenue NE / Davis Driveway	A	9	SBL	C	21	WB
B. 108th Avenue NE / 55th Lane NE (Main Driveway)	B	15	WB	D	28	WB
C. 110th Way / NE 53rd Street	B	11	NB	B	10	NB
D. 111th Avenue NE / NE 53rd Street	B	10	SB	A	10	SB
E. 111th Lane NE / NE 53rd Street	B	11	NB	B	10	NB
F. Barton Driveway / NE 53rd Street	A	9	SB	A	9	SB
G. 114th Avenue NE / NE 53rd Street	A	10	NB	A	10	SB
10. 108th Avenue NE / NE 53rd Street	F	>180	WBL	F	128	WBL

Note: Shaded intersections operate below City of Kirkland LOS standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where SBL = southbound left-turn movement, WB = westbound approach, NB = northbound approach, SB = southbound approach, and WBL = westbound left-turn movement.

Table 11. Future 2037 Weekday AM & PM Peak Hour Site Access LOS Summary

	AM Peak Hour			PM Peak Hour		
Intersection	**LOS[1]**	**Delay[2]**	**WM[3]**	**LOS[1]**	**Delay[2]**	**WM[3]**
A. 108th Avenue NE / Davis Driveway	A	9	SBL	D	27	WB
B. 108th Avenue NE / 55th Lane NE (Main Driveway)	C	17	WB	**E**	**35**	**WB**
C. 110th Way / NE 53rd Street	B	11	NB	B	10	NB
D. 111th Avenue NE / NE 53rd Street	B	10	SB	A	10	SB
E. 111th Lane NE / NE 53rd Street	B	11	NB	B	10	NB
F. Barton Driveway / NE 53rd Street	A	9	SB	A	9	SB
G. 114th Avenue NE / NE 53rd Street	A	10	NB	A	10	NB
10. 108th Avenue NE / NE 53rd Street	F	>180	WBL	F	>180	WBL

Note: Shaded intersections operate below City of Kirkland LOS standards. The City's LOS standard does not apply to unsignalized site access driveways.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where SBL = southbound left-turn movement, WB = westbound approach, NB = northbound approach, SB = southbound approach, and WBL = westbound left-turn movement.



2022 Without-Project Site Access AM and PM Peak Hour Traffic Volumes

FIGURE **8**

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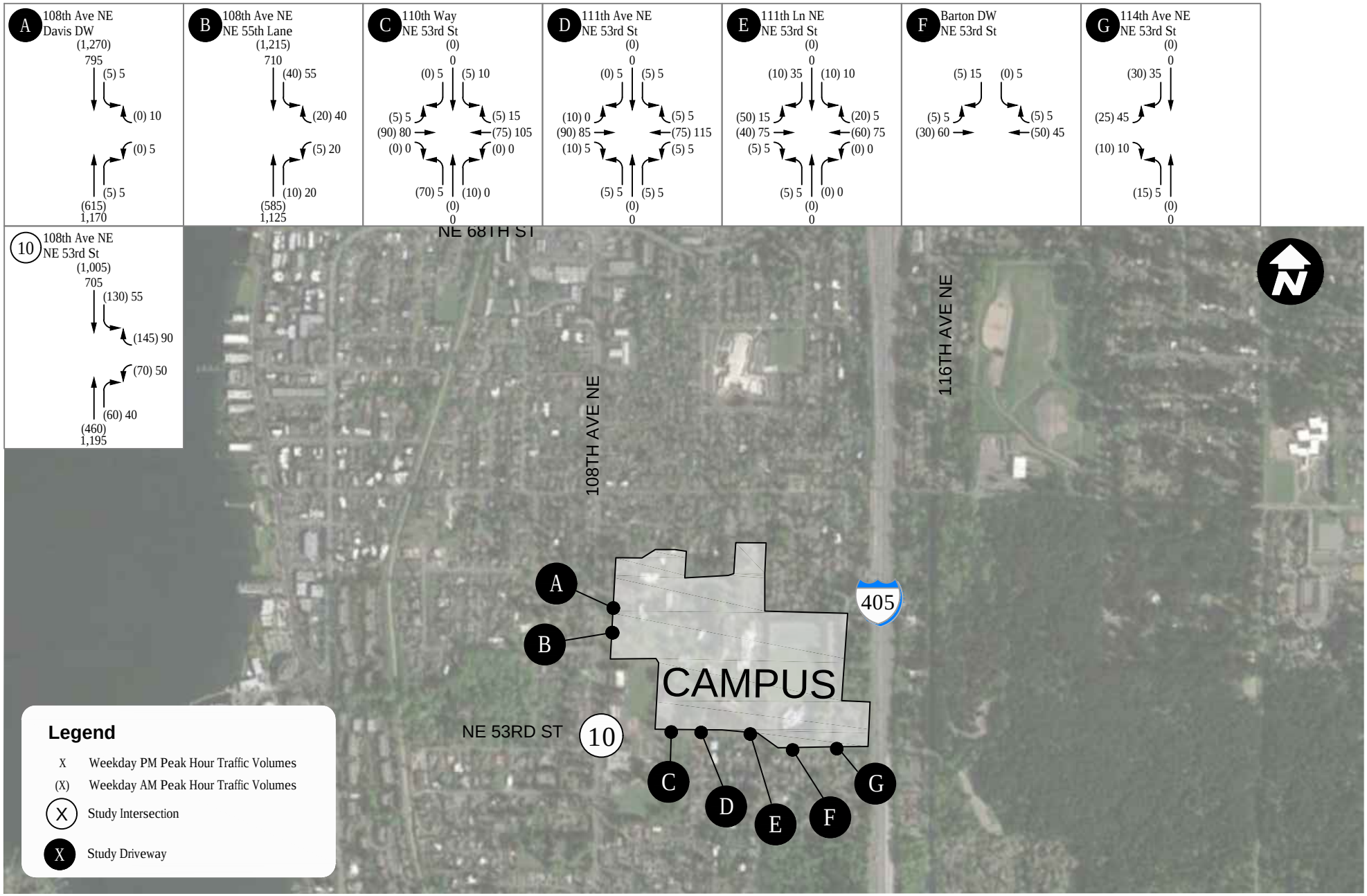

2037 Without-Project Site Access AM & PM Peak Hour Traffic Volumes

FIGURE 9

Northwest University Master Plan

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As summarized in Table 10 and Table 11, all site access driveways are forecasted to operate at LOS C or better in both peak hours under 2022 conditions assuming no on-campus student enrollment growth. With further background traffic growth by 2037 and no campus growth, the 108th Avenue NE/55th Lane NE intersection is forecasted to operate at LOS E on the eastbound campus driveway approach during the weekday PM peak hour. In addition, as noted in the previous section, the 108th Avenue NE/NE 53rd Street intersection, which provides access to the campus driveways along NE 53rd Street, would operate at LOS F during both the AM and PM peak hours under 2022 and 2037 conditions.

Neighborhood Traffic Conditions

Transportation-related conditions within the neighborhood immediately surrounding the campus are likely to remain similar to existing conditions under 2022 and 2037 without-project conditions. While some redevelopment is possible, the surrounding neighborhood is expected to generally remain single-family homes and no specific changes to the locations or operations of the schools located near the 108th Avenue NE/NE 53rd Street intersection are anticipated. As a result, the speeds, cut-through, and school conditions are likely to be similar to those identified previously in the existing neighborhood context section.

Non-Motorized Facilities

The City of Kirkland's *Transportation Master Plan* recommends pedestrian and bicycle facility improvements throughout the City to improve connectivity, access, and safety. As discussed previously, these improvements are generally unfunded but are part of the City's Transportation Master Plan recommendations in the immediate vicinity of the University. This includes creating a greenway along NE 52nd Street, NE 53rd Street and 114th Avenue NE to facilitate bicycle access. This greenway would connect to the Cross Kirkland Corridor (major north-south separated non-motorized corridor that crosses the City) at NE 52nd Street and connect to the recommended NE 60th Street greenway via 114th Avenue NE.

Project Impacts

This section documents project-generated impacts on the transportation system in the vicinity of the Northwest University campus associated with the proposed Master Plan. First, weekday commute peak hour vehicular traffic generation is estimated for the forecast campus enrollment growth, tennis center, and public use of the sports fields, and is then distributed and assigned to the study area. Next, future traffic volumes with the Master Plan are determined and potential traffic volume and operations impacts are identified. Lastly, potential impacts to the neighborhood, parking, traffic safety, non-motorized facilities and transit are addressed.

Trip Generation

The anticipated growth in vehicle trip travel to and from the campus are generally associated with the on-campus student population. No individual development phase is anticipated to directly result in increased campus student enrollment; however, Northwest University does anticipate enrollment growth over the Master Planning analysis period and the additional buildings are intended to serve the general growth in campus population. Approximately 1,200 students attended classes on the Northwest University campus. This student enrollment includes undergraduate/graduate students living on-campus, undergraduate/ graduate commuters, and adult evening class students. The enrollment does not include students enrolled in online classes or at other Northwest University campuses since these do not generate traffic or parking associated with the Kirkland main campus.

Based on information provided by Northwest University, over the next 6-years or by 2022, an increase of approximately 370 students is projected for the Kirkland campus[7] resulting in a total campus population of 1,600 students. In 20-years (2037), the campus student population is anticipated to increase by approximately 770 students for a total of approximately 2,000 students. The growth in student population reflects both on-campus residents and commuters. The proposed residence hall would increase the proportion of students living on-campus in the next 6-years by approximately 5 percent, which could result in a decrease in the trip generation rate associated with the campus. As a conservative estimate of potential traffic associated with the campus, the analysis assumes trip generation rates would remain consistent with current conditions.

In addition to increases in campus student population over the analysis period, the Master Plan includes some public uses of the proposed tennis center and sports fields as well as the proposed banquet facility within the Welcome Center. The public use of the tennis center and sports fields would likely generate traffic on a regular basis during the weekday periods while the banquet facility use would be intermittent. With intermittent use of the banquet facilities, this is not included as part of the typical weekday traffic projections; however, it has been evaluated independently to confirm adequate parking would exist for an event. The following sections describe the method used to forecast vehicle trips for increases in campus student enrollment, and public use of the tennis center and sports fields.

Campus Trip Generation

The trip generation rates used to forecast the additional vehicle trips generated by increased Northwest University campus enrollment were determined based on traffic counts conducted at the existing campus driveways. Vehicular turning movement counts at the existing Northwest University access driveways were collected during weekday AM (7-9 a.m.) and PM (4-6 p.m.) peak periods on three separate days. Appendix E provides a summary of the

7 The campus student population reflects the total headcount of students who attend classes on the Kirkland campus. It does not include online students or students attending Northwest University at other campus locations.

campus-wide trip generation during weekday AM and PM peak hour and detailed count worksheets for the three days at each driveway location. The data showed trip generation varied from day-to-day; therefore, as a conservative estimate of trip generation, the existing trip generation rate was based on the highest AM and PM peak hour traffic volume observed.

Weekday daily vehicular trip generation was estimated based on data provided by automated vehicle counters placed at the two highest volume campus driveways over a seven-day period. Detailed count worksheets are also provided in Appendix E. Weekday daily and peak hour traffic volumes from the automated counters were used to identify factors that were applied to the weekday AM and PM peak hour vehicular trip generation rates to estimate a daily trip generation rate. Factoring the AM peak hour trip rate provides the greatest estimate weekday daily vehicular trip rate.[8]

Table 12 provides a summary of the weekday daily and peak hour trip generation rates, and also summarizes the inbound distribution.

Table 12. Campus Vehicular Trip Generation Rates and Distribution

Time Period	Vehicular Trip Rate[1]	Percent Inbound Trips
Weekday Daily	4.22 vehicles/student[2]	50%
Weekday AM Peak Hour	0.23 vehicles/student	60%
Weekday PM Peak Hour	0.32 vehicles/student	50%

1. Identified trip rate is based on the existing Kirkland campus student headcount of 1,230 students including undergraduate, graduate and adult evening classes. Online students or those attending classes at other campuses are not included.
2. Calculated by factoring the AM peak hour trip rate; Weekday AM peak hour volumes are 5.4 percent of daily volumes at the two highest volume campus driveways while PM peak hour volumes are 9 percent of daily volumes.

Compared to national data sets for colleges/universities trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* (9th Edition), the observed rates are higher. The ITE trip rates are 0.17 vehicle trips per student during both the weekday AM or PM peak hours and 1.71 trips per student each weekday. Table 13 summarizes the forecast new vehicle trip generation for the increase on-campus student enrollment.

Table 13. Campus New Vehicular Trip Generation[1]

		2022 (+370 students)			2037 (+770 students)		
Time Period	Trip Rate[1]	Total	In	Out	Total	In	Out
Weekday Daily	4.22 per student	1,560	780	780	3,250	1,625	1,625
Weekday AM Peak Hour	0.23 per student	85	51	34	177	106	71
Weekday PM Peak Hour	0.32 per student	118	59	59	246	123	123

1. Reflective on the on-campus student enrollment. No student enrollment at other Northwest University campuses or online courses were included.

Tennis Center Trip Generation

The proposed on-campus tennis center would be available to Northwest University as well as accommodate uses that are currently occurring at the Eastside Tennis Center. Use of the tennis center by on-campus University students and staff would not generate additional off-site trips as their trips were assumed to originate on-campus.

The Eastside Tennis Center is located at 10822 117th Place NE. Vehicle counts were collected at the current facility's doorway entrance on three weekdays during the weekday PM commute peak period. Detailed count data is provided in Appendix E. The observations

[8] Weekday AM peak hour volumes are 5.4 percent of daily volumes at the two highest volume campus driveways while PM peak hour volumes are 9.0 percent of daily volumes.

showed an average 43 weekday PM peak hour vehicular trips with 23 inbound and 20 outbound vehicles. The existing tennis center has 12 courts resulting in a vehicle trip rate of 3.59 trips per court with a distribution of 58 percent inbound trips. This vehicular trip generation is greater than published in *Trip Generation* for the Racket/Tennis Club land use (LU #491)[9]. The proposal would reduce the number of courts to 6 resulting in 22 weekday PM peak hour vehicle trips (12 inbound, 10 outbound).

Eastside Tennis Center classes currently operate at capacity during weekday PM peak period and below capacity during weekday AM peak period. To provide a conservative forecast of potential tennis center traffic, weekday AM peak hour tennis center trips were assumed to be equal to PM peak hour trips. However, a 50 percent inbound trip distribution consistent with *Trip Generation* information for a fitness center (LU #492), a similar type of use, was assumed since directional trip information is not available for the *Trip Generation* tennis/racket club land use (LU #491).

Weekday daily trips were estimated by factoring the observed PM trips using trip generation rates for Racket/Tennis Club published in *Trip Generation*.[10] This results in approximately 250 weekday daily vehicle trips. Tennis center trip generation for these time periods is summarized in Table 14.

Table 14. Campus New Vehicular Trip Generation

Time Period	Total	In	Out
Weekday Daily	250	125	125
Weekday AM Peak Hour	22	11	11
Weekday PM Peak Hour	22	12	10

Public Sports Field Use Trip Generation

Public use of the sports fields could include a variety of organizations to support community sports. Northwest University would have first priority for field use; therefore, public field use would generally occur in the evenings or on weekends. The sports fields would be configured to accommodate a variety of team sports including baseball, softball, soccer, and lacrosse. Based on a review of the potential sports that may use the field, youth soccer (under 8 years old) is likely to be the worst-case weekday peak trip generator and has been used to estimate potential weekday PM peak hour vehicular trip generation for public use of the sports fields.[11] Public use of the sports fields would typically occur after 5 p.m. In total, 128 children and 32 coaches could be on-site during practice. This assumes up to 16 teams could practice concurrently. Assuming approximately 25 percent of parent drop-off their children and the remaining stay to watch the practice, this results in an estimated 160 inbound and 32 outbound vehicle trips, or 192 total weekday PM peak hour vehicle trips.

Weekday daily trips associated with the youth soccer accounts for parents returning to pick-up their children and assumes only one youth soccer session during the weekday. Forecast weekday PM peak hour and daily vehicular trip generation associated with public use of the Northwest University ball fields is summarized in Table 15. Since public use of the sports fields during mid-week periods would only occur during evening time periods, no AM peak hour trips would occur.

[9] LU #491 – 3.35 vehicles per tennis court during the weekday PM peak hour of the adjacent street.

[10] Weekday daily vehicle trips for LU #491 = 38.70 per tennis court.

[11] Based on the field size, up to 16 teams could practice at one time with 8 players per team and 2 coaches per team.

Table 15. Public Sports Field Use Vehicular Trip Generation (Youth Soccer)

	Weekday PM Peak Hour			Weekday Daily		
Team Member	**In**	**Out[1]**	**Total**	**In**	**Out**	**Total**
32 Coaches	32	0	32	32	32	64
128 Players with Parents	128	32	160	160	160	320
Total	***160***	***32***	***192***	***192***	***192***	***384***

1. Assumes 25 percent of the players' parents drop them off to practice and then return to pick them up during the weekday PM peak hour.

Trip Generation Summary

Table 16 provides a summary of the trip generation for the proposed Master Plan for both 2022 and 2037 future scenarios.

Table 16. Master Plan Estimated New Vehicular Trip Generation

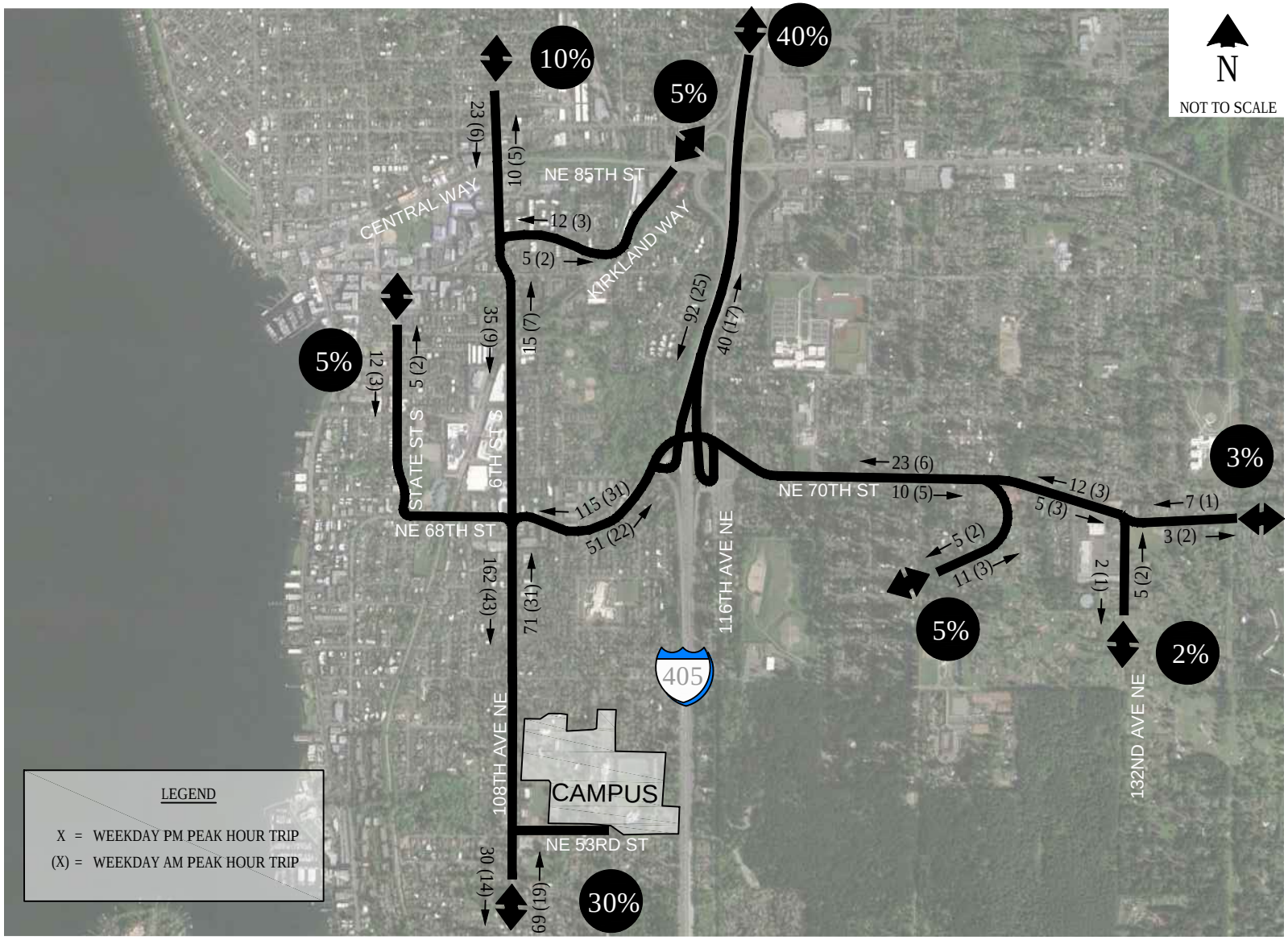
			2022			2037		
Land Use	**Size**	**Trip Rate[1]**	**Total**	**In**	**Out**	**Total**	**In**	**Out**
Weekday Daily								
Northwest University Campus	+370 students (2022) +770 students (2037)	4.22 per student	1,560	780	780	3,250	1,625	1,625
Tennis Center	6 courts	-	250	125	125	250	125	125
Public Sports Field Use[2]	-	-	320	160	160	320	160	160
Total			***2,130***	***1,065***	***1,065***	***3,820***	***1,910***	***1,910***
Weekday AM Peak Hour								
Northwest University Campus	+370 students (2022) +770 students (2037)	0.23 per student	85	51	34	177	106	71
Tennis Center	6 courts	3.59 per court	22	11	11	22	11	11
Public Sports Field Use[2]	-	-	0	0	0	0	0	0
Total			***107***	***62***	***45***	***199***	***117***	***82***
Weekday PM Peak Hour								
Northwest University Campus	+370 students (2022) +770 students (2037)	0.32 per student	118	59	59	246	123	123
Tennis Center	6 courts	-	22	12	10	22	12	10
Public Sports Field Use[2]	-	-	192	160	32	192	160	32
Total			***332***	***231***	***101***	***460***	***295***	***165***

1. Site specific trip rates calculated based on field observations for the campus and Eastside Tennis Center.
2. Trip generation for the sports fields is based on use of the fields for youth soccer.

As summarized in the table, the campus master plan is estimated to generate 2,130 daily trips, 107 AM peak hour trips, and 332 PM peak hour trips in 2022. In year 2037, the master plan is estimated to generate 3,820 daily trips, 199 AM peak hour trips, and 480 PM peak hour trips.

Trip Distribution and Assignment

The distribution of project traffic was based on a combination of information provided by the City of Kirkland, existing travel patterns at the study intersections, and analysis of the off-campus students' zip codes. Figure 10 and Figure 11 summarizes the distribution pattern for all proposed land uses and analysis years 2022 and 2037 respectively.



2022 Project Trip Distribution and Trip Assignment

Northwest University Master Plan

FIGURE
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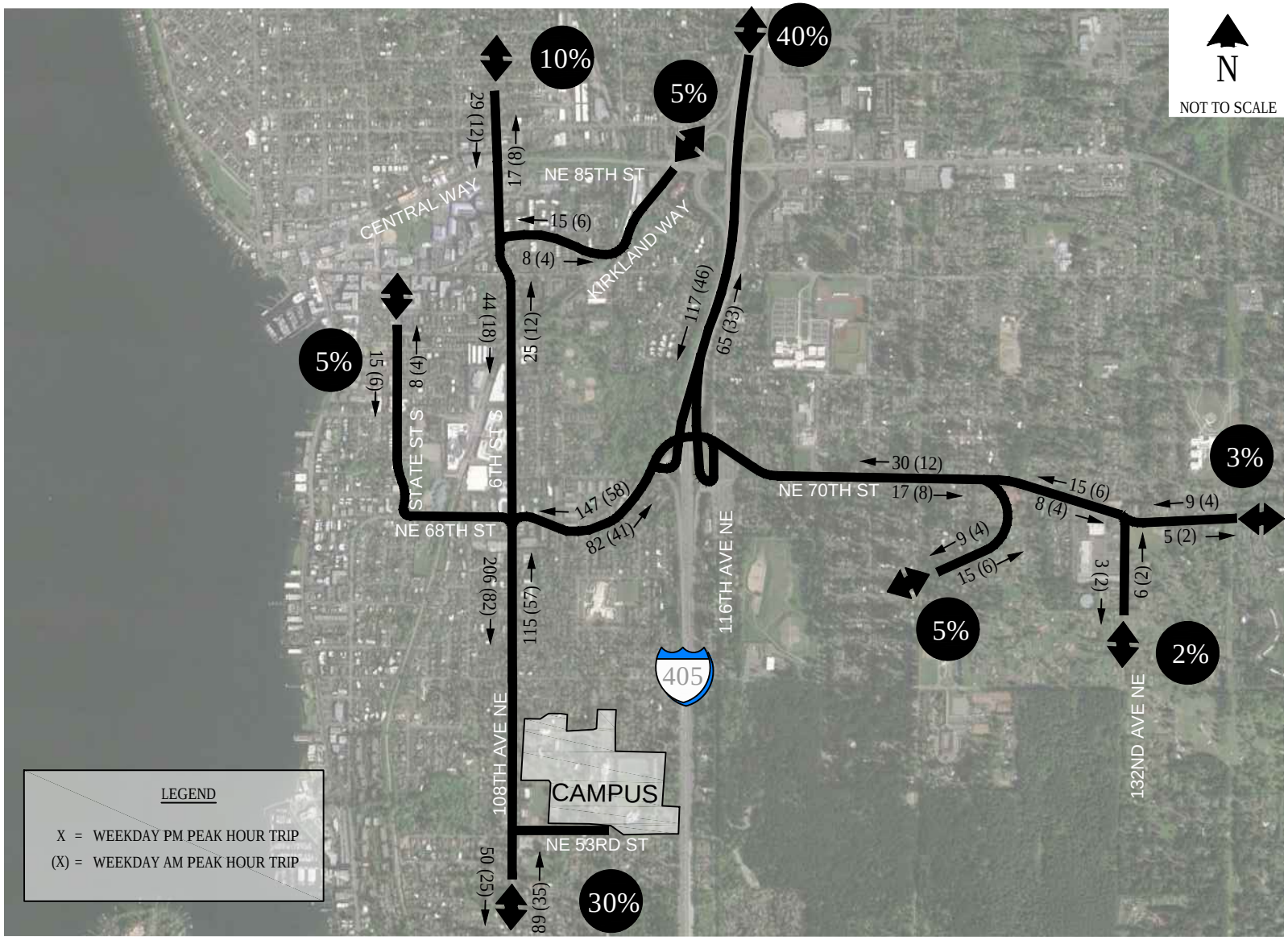

2037 Project Trip Distribution and Trip Assignment

Northwest University Master Plan

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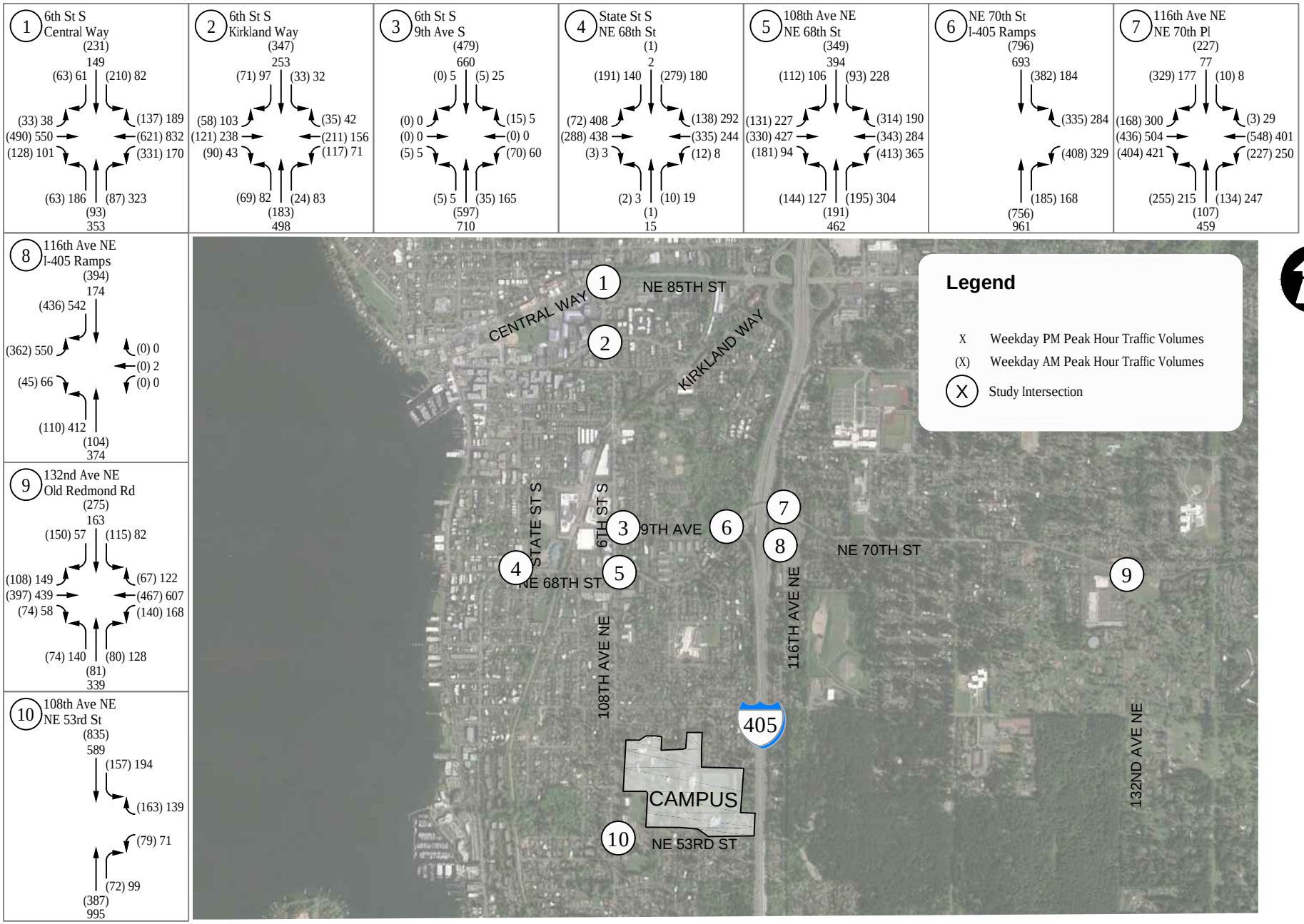
As shown, approximately 30 percent of the on-campus student enrollment generated traffic was forecast to/from the south on 108th Avenue NE, 10 percent to/from the east on NE 70th Street east of I-405, 40 percent northbound on I-405, and the remaining 20 percent to/from the north on State Street and 6th Street S. When assigning trips to the campus driveways, future school generated trips were assumed to distribute proportionally based on the existing driveway distribution.

The tennis center trips were assigned exclusively to the 110th Way NE driveway due to location of the proposed tennis center and parking garage. Lastly, trips generated by public use of the ball fields were assigned exclusively to the 111th Lane NE driveway due to its proximity to the sports fields and large parking lots. Master Plan-related vehicle trips were added to the future 2022 and 2037 without-project traffic volumes to form the basis of the with-project analysis. Figure 12 shows the 2022 forecast with-project weekday AM and PM peak hour traffic volumes at the off-site study intersections and 2037 with-project traffic volumes are shown in Figure 13.



2022 With-Project Off-Site AM & PM Peak Hour Traffic Volumes

FIGURE **12**

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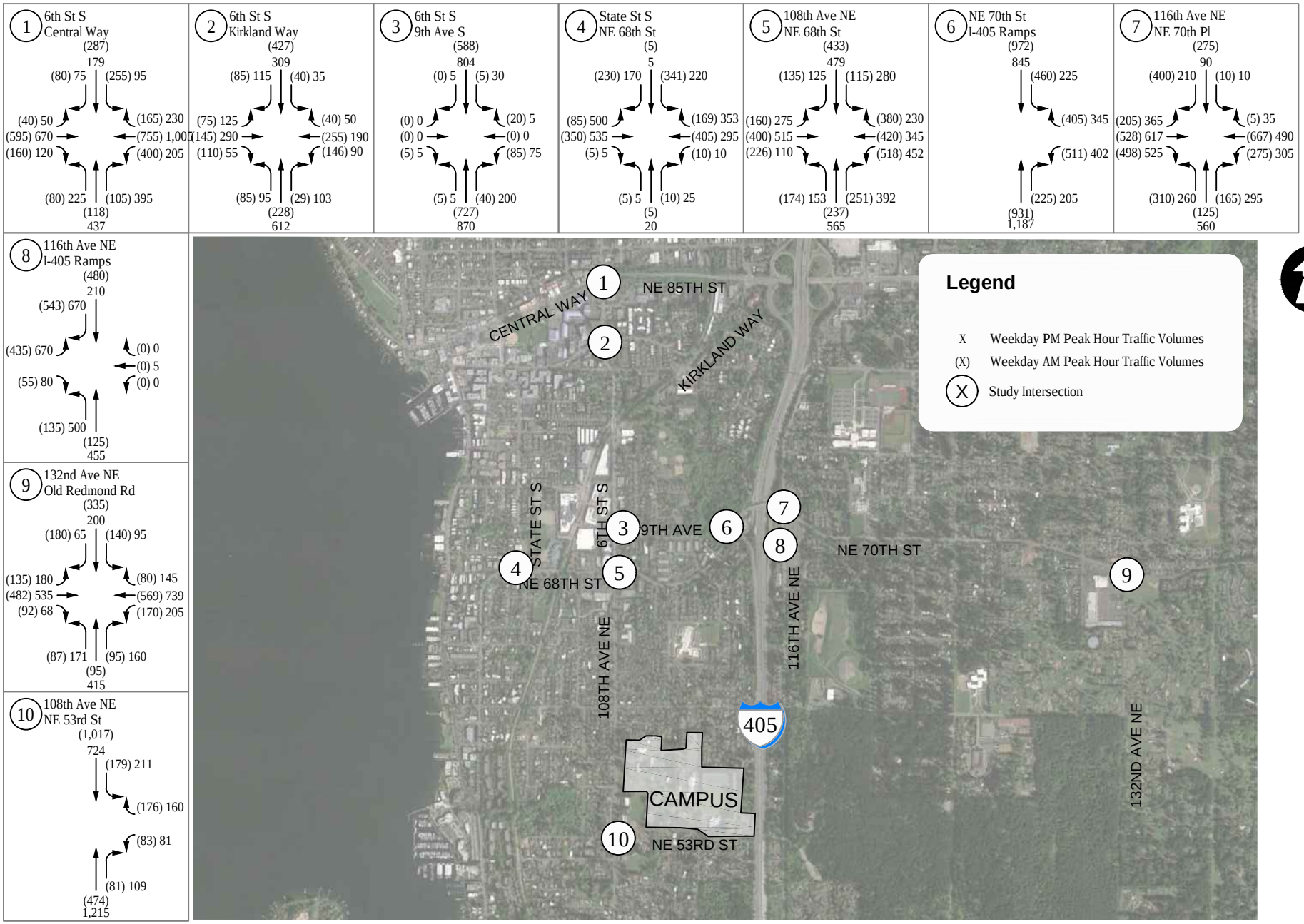

2037 Off-Site With-Project AM & PM Peak Hour Traffic Volumes

FIGURE **13**

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Future With-Project Traffic Operations

An operational analysis was conducted at the study intersections to evaluate the future (2022) weekday AM and PM peak hour conditions with the project. The results of the with-project analysis were compared to the without-project conditions to identify the potential project impacts. Table 17summarizes the future with and without-project LOS for the forecast 2022 weekday AM and PM peak hour. Table 18 summarizes the LOS results for 2037 without and with-project conditions. Detailed LOS worksheets are included in Appendix D. The shaded intersections are those operating below the current LOS standard.

Table 17. Future 2022 Weekday Peak Hour LOS Summary

Intersection	LOS Standard	2022 Without-Project			2022 With-Project		
		LOS[1]	Delay[2]	WM[3]	LOS[1]	Delay[2]	WM[3]
Weekday AM Peak Hour							
1. 6th Street S / Central Way	D	C	30	-	C	30	-
2. 6th Street S / Kirkland Way	D	A	10	-	A	10	-
3. 6th Street S / 9th Avenue S	D	A	7	-	A	7	-
4. NE 70th Street / I-405 Ramps	E	F	168	-	F	>180	-
5. 116th Avenue NE / NE 70th Place	D	F	114	-	F	117	-
6. State Street S / NE 68th Street	D	B	17	-	B	17	-
7. 108th Avenue NE / NE 68th Street	D	F	108	-	F	121	-
8. 116th Avenue NE / I-405 Ramps[4]	E	B	20	-	B	20	-
9. 132nd Avenue NE / NE 70th Place	D	D	41	-	D	42	-
10. 108th Avenue NE / NE 53rd Street	D	F	>180	WBL	F	>180	WBL
Weekday PM Peak Hour							
1. 6th Street S / Central Way	D	D	48	-	D	49	-
2. 6th Street S / Kirkland Way	D	B	11	-	B	11	-
3. 6th Street S / 9th Avenue S	D	A	7	-	A	7	-
4. NE 70th Street / I-405 Ramps	E	E	73	-	F	113	-
5. 116th Avenue NE / NE 70th Place	D	C	35	-	D	36	-
6. State Street S / NE 68th Street	D	D	52	-	D	52	-
7. 108th Avenue NE / NE 68th Street	D	E	76	-	F	105	-
8. 116th Avenue NE / I-405 Ramps[4]	E	F	81	-	F	83	-
9. 132nd Avenue NE / NE 70th Place	D	E	79	-	E	80	-
10. 108th Avenue NE / NE 53rd Street	D	F	128	WBL	F	>180	WBL

Notes: Shaded intersections operate below City of Kirkland LOS D or WSDOT Mitigated LOS E standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WB = westbound approach and WBL = westbound left-turn movement.
4. Analyzed in HCM 2000 due to intersection configuration and signal phasing.

Table 18. Future 2037 Weekday Peak Hour LOS Summary

Intersection	LOS Standard	2037 Without-Project			2037 With-Project		
		LOS[1]	Delay[2]	WM[3]	LOS[1]	Delay[2]	WM[3]
Weekday AM Peak Hour							
1. 6th Street S / Central Way	D	D	54	-	E	55	-
2. 6th Street S / Kirkland Way	D	B	12	-	B	13	-
3. 6th Street S / 9th Avenue S	D	B	10	-	B	11	-
4. NE 70th Street / I-405 Ramps	E	F	>180	-	F	>180	-
5. 116th Avenue NE / NE 70th Place	D	F	>180	-	F	>180	-
6. State Street S / NE 68th Street	D	B	17	-	B	17	-
7. 108th Avenue NE / NE 68th Street	D	F	151	-	F	177	-
8. 116th Avenue NE / I-405 Ramps[4]	E	C	25	-	C	26	-
9. 132nd Avenue NE / NE 70th Place	D	F	88	-	F	90	-
10. 108th Avenue NE / NE 53rd Street	D	F	>180	WBL	F	>180	WBL
Weekday PM Peak Hour							
1. 6th Street S / Central Way	D	F[4]	88	-	F	88	-
2. 6th Street S / Kirkland Way	D	B	14	-	B	15	-
3. 6th Street S / 9th Avenue S	D	B	11	-	B	13	-
4. NE 70th Street / I-405 Ramps	E	F	142	-	F	>180	-
5. 116th Avenue NE / NE 70th Place	D	E	66	-	F	75	-
6. State Street S / NE 68th Street	D	F	96	-	F	97	-
7. 108th Avenue NE / NE 68th Street	D	F	103	-	F	146	-
8. 116th Avenue NE / I-405 Ramps[4]	E	F	141	-	F	147	-
9. 132nd Avenue NE / NE 70th Place	D	F	145	-	F	149	-
10. 108th Avenue NE / NE 53rd Street	D	F	>180	WBL	F	>180	WBL

Notes: Shaded intersections operate below City of Kirkland LOS D or WSDOT Mitigated LOS E standards.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WB = westbound approach and WBL = westbound left-turn movement.
4. Analyzed in HCM 2000 due to intersection configuration and signal phasing.

As discussed previously, the City adopted standard is LOS D and WSDOT's is LOS E mitigated with the study area. As shown in Table 17and Table 18, for both 2037 and 2022 conditions the proposed Master Plan is not anticipated to degrade the study intersections to a worse LOS during the weekday AM or PM peak hours as compared to without-project conditions. There are several locations that would continue to operate below the adopted LOS standard under either the 2022 and/or 2037 conditions during the weekday AM and PM peak hours.

Based on the City's *Traffic Impact Analysis Guidelines* (August 2014), the City defines a SEPA impact requiring mitigation at a signalized location where the project's proportional share of daily intersection traffic related to the capacity of the intersection represents the following:[12]

- More than 15 percent at intersections operating at LOS E
- More than 5 percent at intersections operating at LOS F

Appendix A contains the proportional share calculation worksheets for each intersection under 2022 and 2037 conditions. Table 19 summarizes the proportionate share at each off-site study intersection.

[12] See Table 1 of the City of Kirkland *Traffic Impact Analysis Guidelines*, Revised August 2014.

Table 19. Study Area Intersection Proportionate Share Calculation Summary

City of Kirkland Intersection	Jurisdiction	Proportionate Share	
		2022 Horizon	2037 Horizon
1. 6th Street S / Central Way	Kirkland	2.1%	3.8%
2. 6th Street S / Kirkland Way	Kirkland	2.2%	4.0%
3. 6th Street S / 9th Avenue S	Kirkland	1.0%	1.7%
4. NE 70th Street / I-405 Ramps	WSDOT	5.5%	9.9%
5. 116th Avenue NE / NE 70th Place	Kirkland	7.2%	13.0%
6. State Street S / NE 68th Street	Kirkland	0.6%	1.2%
7. 108th Avenue NE / NE 68th Street	Kirkland	7.7%	13.8%
8. 116th Avenue NE / I-405 Ramps[1]	WSDOT	4.1%	7.3%
9. 132nd Avenue NE / NE 70th Place	Kirkland	0.9%	1.6%
10. 108th Avenue NE / NE 53rd Street	Kirkland	12.8%	22.9%

1. City of Kirkland proportionate share calculation methodology. Proportional share is calculated based on the current enrollment projections and potential phasing of the Master Plan. The Master Plan will be phased over a 20-year period.

Based on the adopted LOS standards, forecast traffic operations, and the proportionate share calculations, mitigation would be required to address project impacts at three City of Kirkland study intersections under either 2022 or 2037 conditions:

- 116th Avenue NE / NE 70th Place
- 108th Avenue NE / NE 68th Street
- 108th Avenue NE / NE 53rd Street

For WSDOT locations, based on the *Development Services Manual*, April 2016 when a development affects a highway intersection where LOS is already below the applicable threshold, then the pre-development LOS is the condition that is preserved. WSDOT also notes that mitigation must be reasonably related and proportional to the development's impacts. As described in the future without-project section, LOS F conditions at the NE 70th Street/116th Avenue NE/I-405 ramps were previously identified in the City's 2015 *Transportation Master Plan*. No specific improvements have been identified at this location but the City recognizes the need to coordinate with WSDOT on improvements at this interchange.

Mitigation measures to address intersection impacts of the Master Plan are summarized in Mitigation and Recommendations section of this study.

Site Access & Neighborhood Context

The following sections summarize future site access traffic volumes, driveway operations, and traffic conditions in the neighborhood surrounding the campus.

Driveway Traffic Volumes

Forecast 2022 and 2037 site access driveway traffic volumes were forecast consistent with the previously described methodologies. The assignment of future project trips to the campus driveways assumed a distribution based on the existing driveway travel patterns and the location of future Master Plan uses. The tennis center trips were assigned exclusively to the 110th Way NE driveway and trips generated by public use of the sports fields were assigned exclusively to the 111th Lane NE driveway. Master Plan-related vehicle trips were then added to the future 2022 and 2037 without-project traffic volumes to form the basis of the with-project analysis. Figure 14 shows the 2022 forecast with-project weekday AM and PM peak hour traffic volumes at the campus driveways and 2037 traffic volumes are shown on Figure 15.

Driveway Traffic Operations

Traffic operations under forecast future with-project traffic volumes were evaluated consistent with the methodology previously described for existing and future without-project conditions. Table 20 summarizes the 2022 forecast without-project AM and PM peak hour intersection operations for the campus driveways and Table 21 summarizes 2037 forecast operations.

Table 20. Future 2022 With-Project Weekday Peak Hour Site Access LOS Summary

	AM Peak Hour			PM Peak Hour		
Intersection	**LOS[1]**	**Delay[2]**	**WM[3]**	**LOS[1]**	**Delay[2]**	**WM[3]**
A. 108th Avenue NE / Davis Driveway	B	12	WB	C	24	WB
B. 108th Avenue NE / 55th Lane NE (Main Driveway)	C	17	WB	D	34	WB
C. 110th Way / NE 53rd Street	B	12	NB	B	14	NB
D. 111th Avenue NE / NE 53rd Street	B	10	SB	B	11	SB
E. 111th Lane NE / NE 53rd Street	B	10	NB	C	17	NB
F. Barton Driveway / NE 53rd Street	A	9	SB	A	9	SB
G. 114th Avenue NE / NE 53rd Street	A	10	NB	A	10	NB
10. 108th Avenue NE / NE 53rd Street	F	>180	WBL	F	>180	WBL

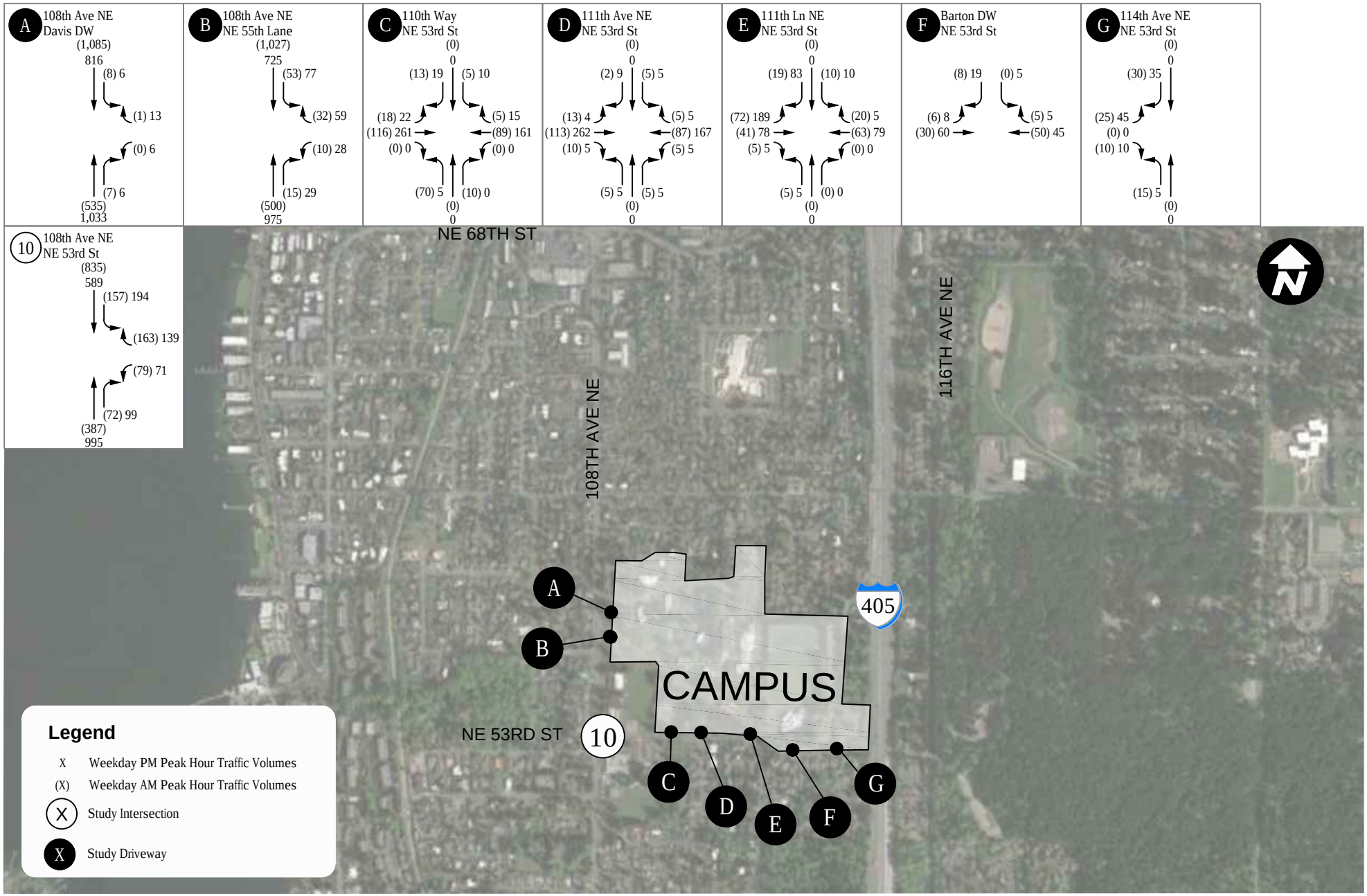
Note: Shaded intersections operate below City of Kirkland LOS standards. The City's LOS standard does not apply to unsignalized site access driveways
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WBL = westbound left-turn movement and EB = eastbound approach.

Table 21. Future 2037 With-Project Weekday Peak Hour Site Access LOS Summary

	AM Peak Hour			PM Peak Hour		
Intersection	**LOS[1]**	**Delay[2]**	**WM[3]**	**LOS[1]**	**Delay[2]**	**WM[3]**
A. 108th Avenue NE / Davis Driveway	C	22	WB	D	35	WB
B. 108th Avenue NE / 55th Lane NE (Main Driveway)	C	24	WB	F	91	WB
C. 110th Way / NE 53rd Street	B	13	NB	C	15	NB
D. 111th Avenue NE / NE 53rd Street	B	10	SB	B	12	SB
E. 111th Lane NE / NE 53rd Street	B	13	NB	C	18	NB
F. Barton Driveway / NE 53rd Street	A	9	SB	A	9	SB
G. 114th Avenue NE / NE 53rd Street	A	10	NB	A	10	NB
10. 108th Avenue NE / NE 53rd Street	F	>180	WBL	F	>180	WBL

Note: Shaded intersections operate below City of Kirkland LOS standards. The City's LOS standard does not apply to unsignalized site access driveways.
1. LOS as defined by the HCM (TRB, 2010)
2. Average delay per vehicle in seconds.
3. Worst movement (WM) reported for stop-controlled intersections where WBL = westbound left-turn movement and EB = eastbound approach.

As shown in Table 20, all site access driveways are forecasted to operate at LOS D or better in both peak hours under 2022 with the forecast on-campus student enrollment growth. With additional background traffic growth and the Master Plan and enrollment growth by 2037, as shown in Table 21, the 108th Avenue NE/55th Lane NE intersection is forecasted to operate at LOS F during the weekday PM peak hour. In addition, as discussed previously, the 108th Avenue NE/NE 53rd Street intersection, which provides access to the campus driveways along NE 53rd Street, would operate at LOS F. Improvements to address potential operations issues and impacts are described in the Mitigation and Recommendations section of this study.



2022 With-Project Site Access AM & PM Peak Hour Traffic Volumes

FIGURE **14**

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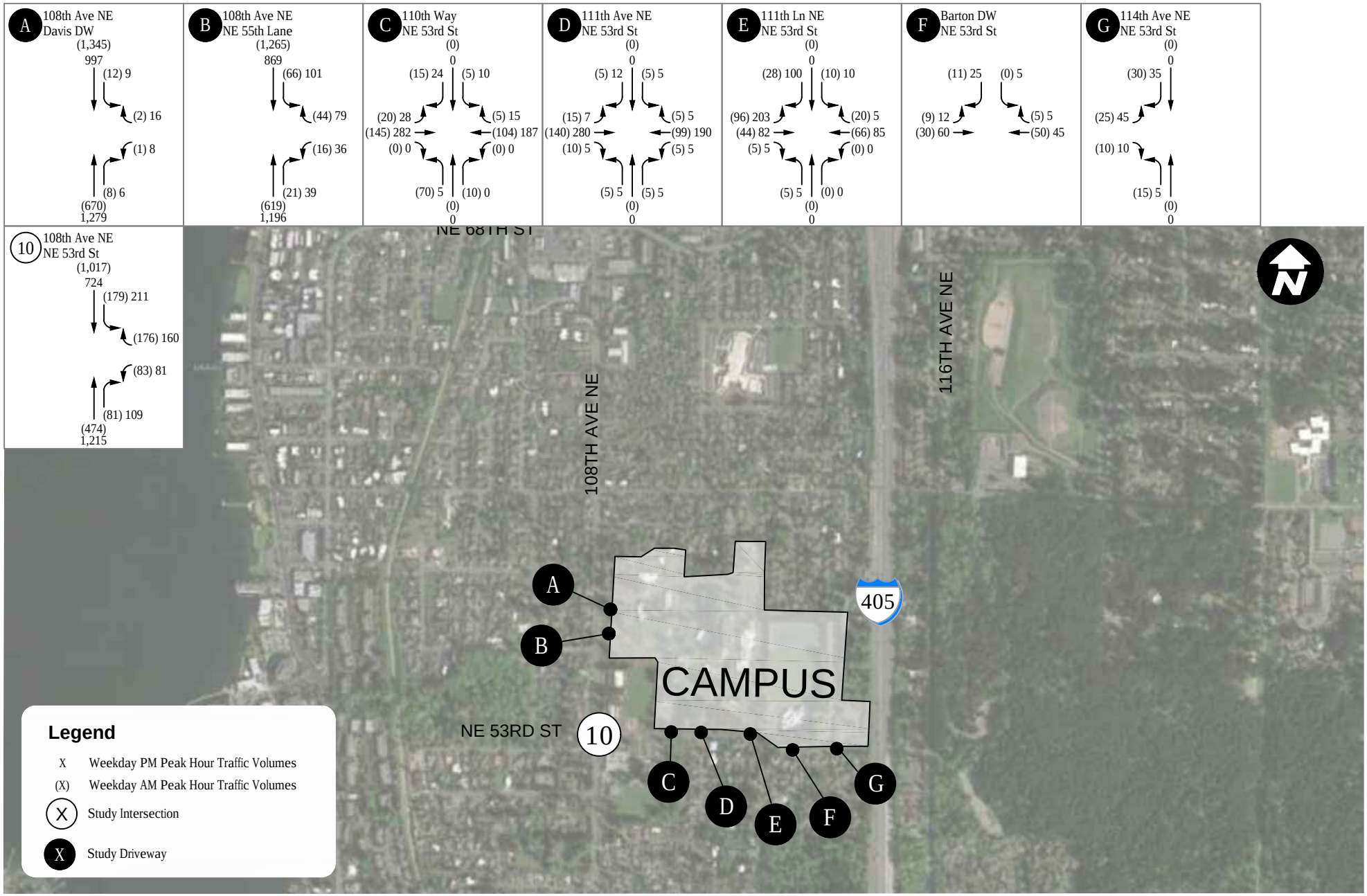

2037 With-Project Site Access AM & PM Peak Hour Traffic Volumes

FIGURE **15**

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Driveway Configuration and Spacing

As discussed previously, the Master Plan does not propose any new driveways; however, it does propose to realign the 111th Avenue NE driveway to accommodate the proposed tennis center. The City of Kirkland's *Policy R-4: Driveway Policy*, April 2016 outlines the standards for driveway configuration and spacing. The proposed driveway improvements were reviewed against this policy.

The proposed realignment would create an offset intersection by moving 111th Avenue NE to the east or right of the existing driveway south of NE 53rd Street. Based on City Policy R-4, the City prefers new driveways be aligned with existing opposing driveways or be offset to the left of the existing opposing driveway in order to minimize left turn conflicts on the streets. The current proposed realignment of the 111th Avenue NE driveway would result in new left-turn conflicts with the existing opposing southern leg of 111th Avenue NE. In order to minimize these conflicts, consistent with the City's Policy R-4, it is recommended that left-turns be restricted to and from the Northwest University 111th Avenue NE access.

The proposed driveway realignment would meet the City of Kirkland driveway spacing requirements. The City requires a driveway spacing of 50-feet along collectors, such as NE 53rd Street, for non-residential use.

Neighborhood Traffic Conditions

The Master Plan and growth in student enrollment would result in additional traffic to and from the campus. Resulting project neighborhood impacts would include:

- **Contribution to Speeding Traffic along NE 53rd Street.** As noted in existing conditions, there are speeding issues along NE 53rd Street and with the additional traffic due to the Master Plan the number of vehicles travelling above the posted speed limit would likely increase.
- **Increase Conflicts at 108th Avenue NE/NE 53rd Street Intersection.** As traffic volumes increase, the number of conflicts between various modes would increase. This would include an increase in conflicts with the school-related activity already occurring at this intersection.
- **Increase in Neighborhood Cut-Through Traffic.** The review of existing neighborhood cut-through traffic to and from the campus showed very few vehicles related to Northwest University travelled within the neighborhood. With increases in traffic volumes and congestion in the study area, there could be some increase in neighborhood cut-through traffic including for vehicles associated with the campus.

Mitigations to address these neighborhood impacts are discussed in the Mitigation and Recommendations section.

Parking

This section summarizes the anticipated Master Plan parking supply and demand.

Supply

The proposed Master Plan could accommodate between 250 and 350 parking stalls. Specific, parking supply would be determined during the building permit phase of the Master Plan and would take into consideration projected parking demand based on enrollment and the specific building uses.

For the disclosure of parking impacts, this analysis considers development of up to 250 additional parking spaces. Under the initial redevelopment anticipated by 2022 (Phases 1

through 3), a net increase of approximately 190 additional parking stalls are anticipated after accounting for demolished and reconstructed parking spaces/garages. At 2037 buildout the further addition of 60 parking stalls is anticipated for a total increased parking supply of approximately 250 parking stalls.

Peak Demand

Similar to trip generation, changes in parking demand with the Master Plan would be associated with increases in enrollment, the tennis center, public use of the sports fields as well as events on campus related to the banquet facilities. Parking demand for Northwest University is anticipated to be highest midday on a weekday when classes are in session.

Campus Parking

As described previously, the current campus contains 1,168 parking spaces and the existing peak parking demand is 638 vehicles occurring between 10 and 11 a.m. The Kirkland campus currently enrolls approximately 1,200 students, which would equate to 0.52 vehicles/student during the peak weekday parking period. Parking demand associated with faculty, staff, and visitors is reflected in the existing demand and thus included in the rate.

As discussed previously, the University is projected to increase campus enrollment by 370 students by 2022 and 770 students by 2037. Table 22 summarizes the campus projected weekday peak parking demand for 2022 and 2037 conditions.

Table 22. Peak On-Campus Parking Demand

Year	On-Campus Enrollment	Peak Parking Demand Rate	Peak Parking Demand
2015 / 2016	1,230 students	0.52 veh / student	638 vehicles
2022	1,600 students	0.52 veh / student	830 vehicles
2037	2,000 students	0.52 veh / student	1,040 vehicles

As shown in Table 22, parking demand would increase by approximately 200 vehicles by 2022 and an additional 200 vehicles by 2037.

Tennis Center Parking

Estimated weekday tennis center peak parking demand was calculated based on ITE *Parking Generation,* 4th Edition. The racquet/tennis club (LU 491) average parking demand rate was used to estimate the tennis center parking demand. A weekday peak parking demand of 11 vehicles is anticipated.

Public Field Use

The public sports field is anticipated to start operations after 4 p.m. and not expected to produce parking demand between the 10 to 11 a.m. Based on similar assumptions as applied to trip generation, peak parking demand for the public use of the sports fields assumes 128 children and 32 coaches with practice starting at 5:00 p.m. It assumes all the coaches and 90 percent of the children would arrive between 4-5 p.m. and 25 percent of the parents would leave after dropping off the children. All the coaches are assumed to drive alone and parents are assumed only to have only one child in a vehicle. The resulting peak parking demand is 160 vehicles.

Shared Parking Demand

Parking demand associated with general University operations would peak at a different time of the day compared to the tennis center and public use of the field. The hourly parking demand for the campus was reviewed to determine the adequacy of the campus parking

supply. Appendix F provides a summary of the projected hourly parking demand for the site. Hourly parking distributions for the Master Plan uses are based on:

- **Campus-Related Population Demand** – Hourly parking data collected in March 2016 and ITE *Parking Generation,* 4th Edition data for the University/College (LU 550)
- **Tennis Center** – ITE Parking Generation, 4th Edition data for the Racquet/Tennis Club (LU 491)
- **Public Use of Sports Fields** – Assuming all the coaches and 90 percent of the children would arrive between 4-5 p.m., 25 percent of the parents would leave after dropping off the children, practice is only 1-hour and only one soccer practice session would occur during the weekday evening.

The project Master Plan weekday hourly parking demand is illustrated on Figure 16. As shown on the figure, the peak parking demand for the campus occurs at approximately 10 a.m. consistent with existing conditions and would be approximately 1,050 vehicles. The existing parking supply could accommodate the anticipated future peak parking demand with the Master Plan for both 2022 (6-year) and 2037 (6-20 year) conditions. With build-out of the Master Plan, parking utilization for the campus would be approximately 90 percent if no new parking was constructed or 75 percent with an additional 250 parking spaces. As shown in the existing conditions section, there are some parking lots on campus that are highly utilized and others that have very low utilization. This shows that there is sufficient parking on campus; however, it may not be in the most convenient location. If parking is not located within a reasonable proximity of the site use, then campus-related traffic may be more likely to park on-street. The provision of parking with the Master Plan would help distribute the location of parking spaces within the campus as well as provide more conveniently located parking for the proposed uses.

Figure 16. Weekday Hourly Master Plan Parking Demand

Banquet Facility

The proposed banquet facility within the Welcome Center would accommodate up to 450 guests. It is anticipated that the banquet facilities would be available for evening use. Based

hourly parking demand presented on Figure 16 and with the proposed parking supply of 1,400 campus spaces, there would be approximately 400 parking spaces available on-campus at 5 p.m. and parking availability would continue to increase throughout the evening. The proposed parking supply would accommodate the anticipated banquet facility parking needs.

Traffic Safety

Traffic generated by the proposed master plan would likely result in a proportionate increase in the probability of collisions. As noted previously, the 116th Avenue NE / NE 70th Street intersection was the only intersection where the observed crash rate was greater than the critical crash rate. However, recently collisions have been decreasing at this location. The City regularly monitors major intersections for safety issues and if a pattern of collisions is identified potential safety improvements are reviewed.

Non-Motorized Facilities

The non-motorized facilities in the area as well as the linkages to the existing transit stops are adequate to support the current and future increases in activity. As discussed previously, the City's *Transportation Master Plan* recommends NE 53rd Street as a future greenway to accommodate bicycle activity and facilitate connectivity of the City's bicycle network. The proposed Master Plan would not preclude development of this greenway.

Transit Services

It is anticipated that existing transit services would be able to accommodate increases in ridership as a result of the Master Plan and increases in enrollment. As previously described, the nearest transit is located along 108th Avenue NE.

Transportation Concurrency

A transportation concurrency test was completed for this project by the City of Kirkland on May 25, 2016. The proposed project passed the concurrency test based on the forecasted person trip generation shown in the May 25, 2016 memorandum to Tony Leavitt, Senior Planner from Thang Nguyen, Transportation Engineer subjected *NW University Master Plan Traffic Concurrency Test Notice, Tran16-00967*. Appendix G contains the transportation concurrency test notice. The concurrency test notice shall expire and a new concurrency test application is required unless:

- A complete SEPA checklist, traffic impact analysis and all required documentation are submitted to the City within 90 calendar days of the concurrency test notice.
- A Certificate of Concurrency is issued or an extension is requested and granted by the Public Works Department within one year of issuance of the concurrency test notice. (A Certificate of Concurrency is issued at the same time a development permit or building permit is issued if the applicant holds a valid concurrency test notice.)
- A Certificate of Concurrency shall expire six years from the date of issuance of the concurrency test notice unless all building permits are issued for buildings approved under the concurrency test notice.

Mitigations and Recommendations

Potential mitigation measures are described below. The basic framework of the mitigation plan includes recommendations with respect to:

- Intersection Improvements
- Traffic Calming
- Parking / Internal Campus Connectivity
- Event Management

In addition, the University would be responsible for payment of City of Kirkland transportation impact fees to mitigate general transportation related impacts of the Master Plan.

Intersection Improvements

In addition, based on the traffic operations impacts at the study intersections, potential mitigation measures were identified at the following locations:

- 116th Avenue NE / NE 70th Place
- 108th Avenue NE / NE 68th Street
- 108th Avenue NE / NE 53rd Street

116th Avenue NE/NE 70th Place

Traffic operations at the 116th Avenue NE/NE 70th Place intersection are forecast to operate at LOS F with the anticipated increase in on-campus student enrollment under either 2022 or 2037 conditions. These operations are also consistent with the 2015 Comprehensive Plan Update DEIS findings, which identifies a southbound right-turn pocket at this intersection. The right-turn would not improve intersection operations to pre-project conditions and the feasibility of this improvement would need to be further explored. This intersection is generally built out and payment of transportation impact fees supporting transportation improvements throughout the City would mitigate project-related impacts at this location.

Mitigation of this intersection would likely be required by 2020, which coincides with the current Phase 3 of development. The evaluation of timing for mitigation assumed completion of the tennis center, public use of the sports field and incremental growth in student enrollment over the next 4-years. It was assumed mitigation would be required when the Master Plan's proportionate share at this intersection would be greater than 5 percent.

108th Avenue NE/NE 68th Street

Under both 2022 and 2037 conditions, the 108th Avenue NE/NE 68th Street intersection operates at LOS F either without or with the addition of project traffic and is consistent with the Comprehensive Plan findings. As with other City intersections, this intersection is generally built out with no public right-of-way available to construct additional lanes at the intersection. The City's 2015-2020 *Capital Improvement Program* includes the 6th Street Corridor Study and Houghton/Everest Neighborhood Plan, which is underway. This study will develop a corridor and neighborhood plan including transportation solutions to accommodate growth in the study area. These solutions may include policies (e.g., parking policies), projects (e.g., intersection improvements) and programs (e.g., bikeshare). Given constraints along the corridor project will generally focus on transit, bicycle, and pedestrian facilities and consider safety, geometrics, and other transportation conditions along the corridor.

Project-related impacts at the 108th Avenue NE/NE 68th Street intersection could be mitigated by Northwest University contributing towards this study.

Mitigation of this intersection would likely be required by 2020, which coincides with the current Phase 3 of development. The evaluation of timing for mitigation assumed completion of the tennis center, public use of the sports field and incremental growth in student enrollment over the next 4-years. It was assumed mitigation would be required when the Master Plan's proportionate share at this intersection would be greater than 5 percent.

NE 108th / NE 53rd Street Mitigation

Project-related impacts at the NE 108th Avenue//NE 53rd Street intersection could be mitigated by installing a traffic signal. A review of the 4-hour and 8-hour volume warrants from the *Manual on Uniform Traffic Control Devices* (MUTCD), 2009 indicates a traffic signal would be warranted in 2022. When analyzed as an actuated non-coordinated signal with no roadway channelization changes, this intersection would operate at LOS B or better under 2022 conditions and LOS D or better during 2037 conditions, improving operations to meet City of Kirkland LOS standards. This improvement would result in the removal of the existing mid-block crosswalk immediately south of this intersection and relocate the crosswalk to the NE 53rd Street intersection.

Provision of a signal at this location would likely deter some neighborhood cut-through activity since traffic to and from NE 53rd Street would have less delay. In addition, the signalized crossing would reduce conflicts and facilitate pedestrian activity to and from the schools and transit stops near the 108th Avenue NE/NE 53rd Street intersection. Lastly, given the poor operations projected at the main campus driveway (108th Avenue NE/NE 55th Lane), it is likely that vehicles having difficulty exiting the campus during the weekday peak periods would shift to the new signalized intersection, which would improve operations of the main driveway.

Mitigation of this intersection would be required when signal warrants are met. It is anticipated that a signal would be warranted with Phase 1 of development (i.e., completion of the tennis center).

Traffic Calming

A review of 85th-percentile speeds along NE 53rd Street show there is a speeding issue on this corridor and some additional impact could occur with the Master Plan. Potential adverse impacts to the NE 53rd Street corridor could be mitigated through Northwest University support of the City's neighborhood traffic calming program. The University could contribute a proportional share to traffic calming improvements along NE 53rd Street as well as within the neighborhood. The traffic calming program would be facilitated by the City and the neighborhood would make decisions related to specific improvements and locations. Consideration would need to be given to the recommended greenway along NE 53rd Street that is part of the City's *Transportation Master Plan.* Depending on the traffic calming measures that are implemented such as speed humps, speed cushions, curb extension, or other measures,[13] vehicle speeds are likely to be reduced.

Parking / Internal Campus Connectivity

As previously described, the existing parking would be adequate to serve the anticipated Master Plan parking demand; however, it may not be in a convenient location. If parking is

[13] City of Kirkland Traffic Calming Devices
www.kirklandwa.gov/depart/Public_Works/Transportation_and_Traffic/Traffic_Calming_Devices.htm

not located within reasonable proximity of destinations, then campus-related users may be more likely to park on-street. Parking impacts could be minimized by implementing management strategies as well as providing improved internal pedestrian connectivity. The parking mitigations could include:

- Providing additional internal pedestrian connections from parking lots to buildings and campus facilities. This would include providing a pedestrian connection on the east and west side of the sports fields to serve the adjacent parking facilities and the campus apartments.
- Assign campus population to specific parking lots to reduce potential parking in the neighborhood or moving vehicles between classes.
- Increase parking permit costs to deter student driving and potentially increase use of non-motorized and transit modes.

Event Management

With the forecast increases in student enrollment and existing and potential on-campus special events and activities such as receptions or sporting events, on-site parking and special event management processes could be implemented to reduce isolated on-campus parking congestion, excess vehicle circulation by drivers unfamiliar with the campus and the potential for parking within the neighborhood. Examples of potential measures include:

- The assignment of specific event/visitor parking lots
- On-campus wayfinding signage directing drivers to specific parking areas (this is already done by the University during events)
- Active enforcement of any permanent and/or temporary parking restrictions
- Posting of no parking signage along NE 53rd Street during events and monitoring neighborhood parking

Transportation Impact Fees

The proponent would be required to pay the City of Kirkland transportation impact fees to mitigate general transportation-related project impacts throughout the City. Table 23 shows the preliminary fee estimate for the proposed project based on the currently adopted impact fee rate (effective 1/1/2016). These fees are provided as estimates only and would be finalized by the City upon review.

Table 23. Preliminary Estimate of Transportation Impact Fee

Land Use	Student Increase	Rate[1]	Fee
2022 Conditions University / College (6-Year)	+370 Students	$553 / student	$204,610
2037 Conditions University / College (6-20 Year)	+400 Students	$553 / student	$221,200
Total	**+770 Students**		**$425,810**

Source: Transpo Group, 2016
1. Based on City of Kirkland Transportation Impact Fee Schedule (Chapter 27.04 KMC) as of January 1, 2016.

Technical Appendix

NORTHWEST UNIVERSITY MASTER PLAN

KIRKLAND MAIN CAMPUS

Prepared for:
Northwest University

June 2016

Prepared by:

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16024.00

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Appendix

Appendix A: Intersection Proportional Share Impact Worksheets
Appendix B: Traffic Counts
Appendix C: LOS Definitions
Appendix D: LOS Worksheets
Appendix E: Trip Generation Calculations
Appendix F: Shared Parking Calculations
Appendix G: Transportation Concurrency Test Notice

Appendix A: Intersection Proportional Share Impact Worksheets

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	116th Ave NE	# of Lanes*=	1
Minor Street[1]	405 Ramps	# of Lanes*=	2

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	213	426	0	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	213	426	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1.33***	***0.833***	***1.33***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	2.56%
$P_2=V_2/(5{,}000 \times f_2)$ =	3.20%
$P_3=V_1/(15{,}000 \times f_3)$ =	1.70%
$P_4=V_2/(2{,}500 \times f_4)$ =	6.41%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	2.88%
$S_2=(P_3+P_4)/2$=	4.06%

Intersection Proportional Share = Maximum of S1 and S2 = 4.06%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	116th Ave NE	# of Lanes*=	1
Minor Street[1]	405 Ramps	# of Lanes*=	2

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	382	764	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	382	764	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1.33***	***0.833***	***1.33***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	4.59%
$P_2=V_2/(5{,}000 \times f_2)$ =	5.74%
$P_3=V_1/(15{,}000 \times f_3)$ =	3.06%
$P_4=V_2/(2{,}500 \times f_4)$ =	11.49%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	5.17%
$S_2=(P_3+P_4)/2$=	7.27%

Intersection Proportional Share = Maximum of S1 and S2 = 7.27%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	NE 70th St	# of Lanes*=	1
Minor Street[1]	405 Ramps	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection		**Daily Volumes**	***Entering Leg Volumes****		
(Total of both approaches divided by two)	Major Street Volume V_1 =	319.5	106.5	532.5	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	213	426	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	3.84%
$P_2=V_2/(5{,}000 \times f_2)$ =	4.26%
$P_3=V_1/(15{,}000 \times f_3)$ =	2.56%
$P_4=V_2/(2{,}500 \times f_4)$ =	8.52%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	4.05%
$S_2=(P_3+P_4)/2$=	5.54%

Intersection Proportional Share = Maximum of S1 and S2 = 5.54%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	NE 70th St	# of Lanes*=	1
Minor Street[1]	405 Ramps	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	573	191	955	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	382	764	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	6.88%
$P_2=V_2/(5{,}000 \times f_2)$ =	7.64%
$P_3=V_1/(15{,}000 \times f_3)$ =	4.59%
$P_4=V_2/(2{,}500 \times f_4)$ =	15.28%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	7.26%
$S_2=(P_3+P_4)/2$=	9.93%

Intersection Proportional Share = Maximum of S1 and S2 = 9.93%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	108th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 53rd St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	532.5	319.5	745.5	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	532.5	1065	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	6.39%
$P_2=V_2/(5{,}000 \times f_2)$ =	10.65%
$P_3=V_1/(15{,}000 \times f_3)$ =	4.26%
$P_4=V_2/(2{,}500 \times f_4)$ =	21.30%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	8.52%
$S_2=(P_3+P_4)/2$=	12.78%

Intersection Proportional Share = Maximum of S1 and S2 = 12.78%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	108th Ave NE	# of Lanes*=	1
Minor Street[1]	NE 53rd St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	955	573	1337	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	955	1910	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	11.46%
$P_2=V_2/(5{,}000 \times f_2)$ =	19.10%
$P_3=V_1/(15{,}000 \times f_3)$ =	7.64%
$P_4=V_2/(2{,}500 \times f_4)$ =	38.20%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	15.28%
$S_2=(P_3+P_4)/2$=	22.92%

Intersection Proportional Share = Maximum of S1 and S2 = 22.92%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	108th Ave	# of Lanes*=	1
Minor Street[1]	68th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection		**Daily Volumes**	***Entering Leg Volumes****		
(Total of both approaches divided by two)	Major Street Volume V_1 =	452.625	745.5	159.75	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	292.875	53.25	532.5	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	5.43%
$P_2=V_2/(5{,}000 \times f_2)$ =	5.86%
$P_3=V_1/(15{,}000 \times f_3)$ =	3.62%
$P_4=V_2/(2{,}500 \times f_4)$ =	11.72%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	5.65%
$S_2=(P_3+P_4)/2$=	7.67%

Intersection Proportional Share = Maximum of S1 and S2 = 7.67%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	108th Ave	# of Lanes*=	1
Minor Street[1]	68th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	811.75	1337	286.5	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	525.25	95.5	955	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	9.74%
$P_2=V_2/(5{,}000 \times f_2)$ =	10.51%
$P_3=V_1/(15{,}000 \times f_3)$ =	6.50%
$P_4=V_2/(2{,}500 \times f_4)$ =	21.01%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	10.12%
$S_2=(P_3+P_4)/2$=	13.75%

Intersection Proportional Share = Maximum of S1 and S2 = 13.75%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	132nd Ave	# of Lanes*=	1
Minor Street[1]	ne 70th st	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	10.65	0	21.3	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	42.6	31.95	53.25	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.13%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.85%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.09%
$P_4=V_2/(2{,}500 \times f_4)$ =	1.70%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.49%
$S_2=(P_3+P_4)/2$=	0.89%

Intersection Proportional Share = Maximum of S1 and S2 = 0.89%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	132nd Ave	# of Lanes*=	1
Minor Street[1]	70th	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	19.1	0	38.2	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	76.4	57.3	95.5	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.23%
$P_2=V_2/(5{,}000 \times f_2)$ =	1.53%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.15%
$P_4=V_2/(2{,}500 \times f_4)$ =	3.06%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.88%
$S_2=(P_3+P_4)/2$=	1.60%

Intersection Proportional Share = Maximum of S1 and S2 = 1.60%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	116th St	# of Lanes*=	1
Minor Street[1]	70th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	213	426	0	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	319.5	106.5	532.5	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	2.56%
$P_2=V_2/(5{,}000 \times f_2)$ =	6.39%
$P_3=V_1/(15{,}000 \times f_3)$ =	1.70%
$P_4=V_2/(2{,}500 \times f_4)$ =	12.78%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	4.47%
$S_2=(P_3+P_4)/2$=	7.24%

Intersection Proportional Share = Maximum of S1 and S2 = 7.24%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	116th St	# of Lanes*=	1
Minor Street[1]	70th Ave	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection		**Daily Volumes**	***Entering Leg Volumes****		
(Total of both approaches divided by two)	Major Street Volume V_1 =	382	764	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	573	191	955	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	4.59%
$P_2=V_2/(5{,}000 \times f_2)$ =	11.46%
$P_3=V_1/(15{,}000 \times f_3)$ =	3.06%
$P_4=V_2/(2{,}500 \times f_4)$ =	22.92%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	8.02%
$S_2=(P_3+P_4)/2$=	12.99%

Intersection Proportional Share = Maximum of S1 and S2 = 12.99%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	68th St	# of Lanes*=	1
Minor Street[1]	State St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	26.625	53.25	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	26.625	0	53.25	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.32%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.53%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.21%
$P_4=V_2/(2{,}500 \times f_4)$ =	1.07%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.43%
$S_2=(P_3+P_4)/2$=	0.64%

Intersection Proportional Share = Maximum of S1 and S2 = 0.64%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	68th St	# of Lanes*=	1
Minor Street[1]	State St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	47.75	95.5	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	47.75	0	95.5	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.57%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.96%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.38%
$P_4=V_2/(2{,}500 \times f_4)$ =	1.91%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.76%
$S_2=(P_3+P_4)/2$=	1.15%

Intersection Proportional Share = Maximum of S1 and S2 = 1.15%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	Kirkland way	# of Lanes*=	1
Minor Street[1]	6th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	26.625	0	53.25	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	106.5	106.5	106.5	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.32%
$P_2=V_2/(5{,}000 \times f_2)$ =	2.13%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.21%
$P_4=V_2/(2{,}500 \times f_4)$ =	4.26%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.22%
$S_2=(P_3+P_4)/2$=	2.24%

Intersection Proportional Share = Maximum of S1 and S2 = 2.24%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	Kirkland way	# of Lanes*=	1
Minor Street[1]	6th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	47.75	0	95.5	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	191	191	191	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.57%
$P_2=V_2/(5{,}000 \times f_2)$ =	3.82%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.38%
$P_4=V_2/(2{,}500 \times f_4)$ =	7.64%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	2.20%
$S_2=(P_3+P_4)/2$=	4.01%

Intersection Proportional Share = Maximum of S1 and S2 = 4.01%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

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Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	6th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	0	0	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	106	106	106	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.00%
$P_2=V_2/(5{,}000 \times f_2)$ =	2.12%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.00%
$P_4=V_2/(2{,}500 \times f_4)$ =	4.24%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.06%
$S_2=(P_3+P_4)/2$=	2.12%

Intersection Proportional Share = Maximum of S1 and S2 = 2.12%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

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			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	Central Way	# of Lanes*=	2
Minor Street[1]	6th St	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	0	0	0	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	191	191	191	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
1	***1***	***1***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	0.00%
$P_2=V_2/(5{,}000 \times f_2)$ =	3.82%
$P_3=V_1/(15{,}000 \times f_3)$ =	0.00%
$P_4=V_2/(2{,}500 \times f_4)$ =	7.64%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.91%
$S_2=(P_3+P_4)/2$=	3.82%

Intersection Proportional Share = Maximum of S1 and S2 = 3.82%

Significant Intersection? **yes**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

Input appropriate information in green cells

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

			Through Lanes[1]
Project Name:	Northwest University (2022)		
Major Street[1]	6th St S	# of Lanes*=	1
Minor Street[1]	9th Ave	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes**		
(Total of both approaches divided by two)	Major Street Volume V_1 =	159.75	159.75	159.75	*Major*
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	*Minor*

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	1.92%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	1.28%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	0.96%
$S_2=(P_3+P_4)/2$=	0.64%

Intersection Proportional Share = Maximum of S1 and S2 = 0.96%

Significant Intersection? **no**

1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

Proportional Share Impact Worksheet

[1] See "*Intersection Description*" worksheet for descriptions

1. May Change without notice, call Thang Nguyen 425-587-3869 with questions

Input appropriate information in green cells

			Through Lanes[1]
Project Name:	Northwest University (2037)		
Major Street[1]	6th St S	# of Lanes*=	1
Minor Street[1]	9th Ave	# of Lanes*=	1

DATE:

4/27/2016

Daily Project Traffic Entering the Intersection

		Daily Volumes	*Entering Leg Volumes* *		
(Total of both approaches divided by two)	Major Street Volume V_1 =	286.5	286.5	286.5	***Major***
(Total of both approaches divided by two)	Minor Street Volume V_2 =	0	0	0	***Minor***

***Do not leave cell empty for zero volume**

Determine Geometric Factors

Number of Lanes		Geometric Factors			
Major Street	Minor Street	f_1	f_2	f_3	f_4
2	2	1.000	1.330	1.000	1.330
2	1	1.000	1.000	1.000	1.000
1	2	0.833	1.330	0.833	1.330
1	1	0.833	1.000	0.833	1.000

f_1	f_2	f_3	f_4
0.833	***1***	***0.833***	***1***

Calculate Base Percentages

$P_1=V_1/(10{,}000 \times f_1)$ =	3.44%
$P_2=V_2/(5{,}000 \times f_2)$ =	0.00%
$P_3=V_1/(15{,}000 \times f_3)$ =	2.29%
$P_4=V_2/(2{,}500 \times f_4)$ =	0.00%

Calculate Proportional Share

$S_1=(P_1+P_2)/2$=	1.72%
$S_2=(P_3+P_4)/2$=	1.15%

Intersection Proportional Share = Maximum of S1 and S2 = 1.72%

Significant Intersection? **yes**

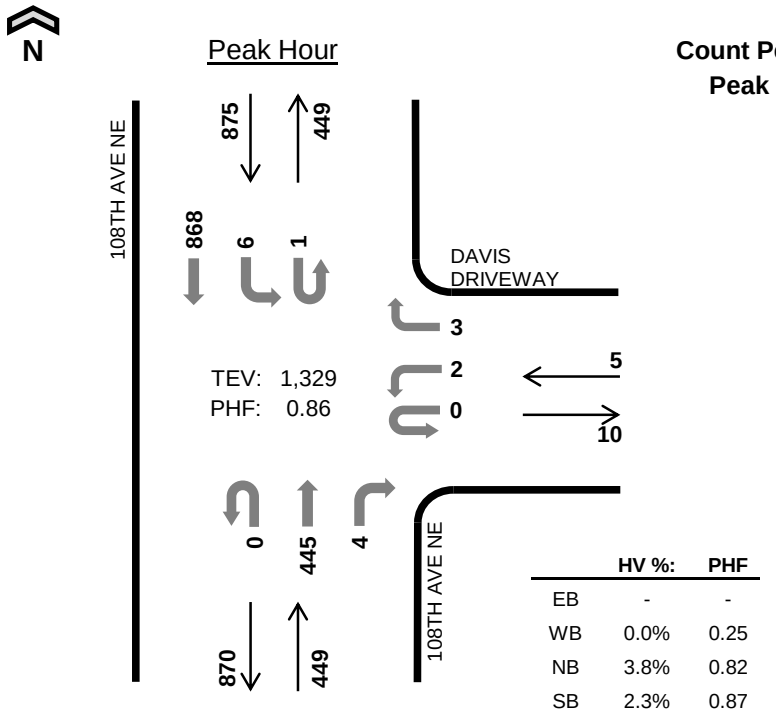
1. Number of through lanes. Do not count exclusive turn lanes. Use the smaller number of lanes if the number of lanes is unequal on two legs. For Example, if one minor leg has two lanes and one minor leg has one lane, the number of lanes on the minor leg is one.

Computed By:	D. Li
Company:	Transpo Group

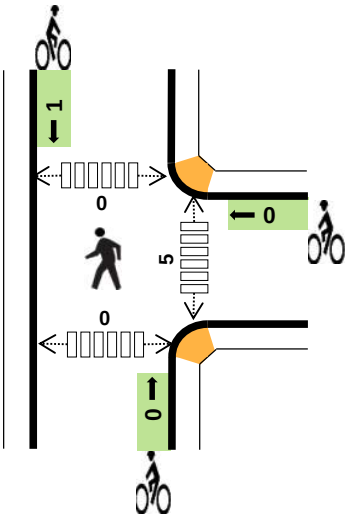
Appendix B: Traffic Counts

108TH AVE NE
DAVIS DRIVEWAY

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	-	-
WB	0.0%	0.25
NB	3.8%	0.82
SB	2.3%	0.87
TOTAL	2.8%	0.86



Two-Hour Count Summaries

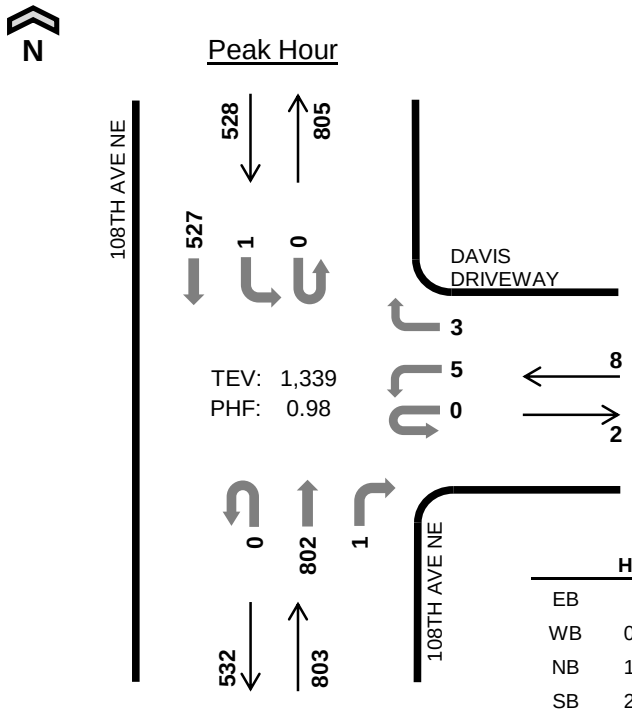
Interval Start	0				DAVIS DRIVEWAY				108TH AVE NE				108TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	35	1	0	1	132	0	169	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	58	3	0	1	174	0	236	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	59	0	0	2	209	0	270	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**118**	**2**	**0**	**0**	**233**	**0**	**353**	1,028
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**135**	**2**	**0**	**4**	**247**	**0**	**388**	1,247
8:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**83**	**0**	**0**	**2**	**185**	**0**	**275**	1,286
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**109**	**0**	**1**	**0**	**203**	**0**	**313**	**1,329**
8:45 AM	0	0	0	0	0	0	0	1	0	0	117	3	0	2	202	0	325	1,301
Count Total	0	0	0	0	0	2	0	4	0	0	714	11	1	12	1,585	0	2,329	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**3**	**0**	**0**	**445**	**4**	**1**	**6**	**868**	**0**	**1,329**	**0**

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

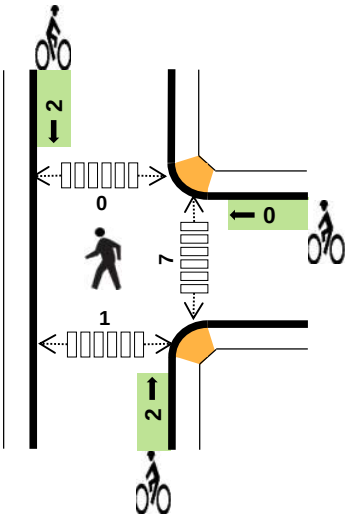
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	4	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	2	3	*5*	0	0	0	0	*0*	1	0	0	0	*1*
7:45 AM	**0**	**0**	**4**	**6**	***10***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	*3*
8:00 AM	**0**	**0**	**1**	**5**	***6***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:15 AM	**0**	**0**	**7**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**5**	**2**	***7***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	0	3	5	*8*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	0	0	27	36	*63*	0	0	0	2	*2*	6	0	0	0	*6*
Peak Hr	**0**	**0**	**17**	**20**	***37***	**0**	**0**	**0**	**1**	***1***	**5**	**0**	**0**	**0**	***5***

108TH AVE NE
DAVIS DRIVEWAY

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.67
NB	1.5%	0.93
SB	2.5%	0.96
TOTAL	1.9%	0.98



Two-Hour Count Summaries

Interval Start	0				DAVIS DRIVEWAY				108TH AVE NE				108TH AVE NE				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	2	0	0	1	0	193	2	0	0	112	0	310	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	211	0	0	0	113	0	325	0
4:30 PM	0	0	0	0	0	1	0	3	0	0	208	0	0	0	109	0	321	0
4:45 PM	0	0	0	0	0	1	0	1	0	0	193	0	0	0	97	0	292	1,248
5:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**207**	**0**	**0**	**0**	**131**	**0**	**341**	1,279
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**216**	**1**	**0**	**1**	**123**	**0**	**343**	1,297
5:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**205**	**0**	**0**	**0**	**136**	**0**	**343**	1,319
5:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**174**	**0**	**0**	**0**	**137**	**0**	**312**	**1,339**
Count Total	0	0	0	0	0	9	0	8	1	0	1,607	3	0	1	958	0	2,587	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**0**	**0**	**802**	**1**	**0**	**1**	**527**	**0**	**1,339**	**0**

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

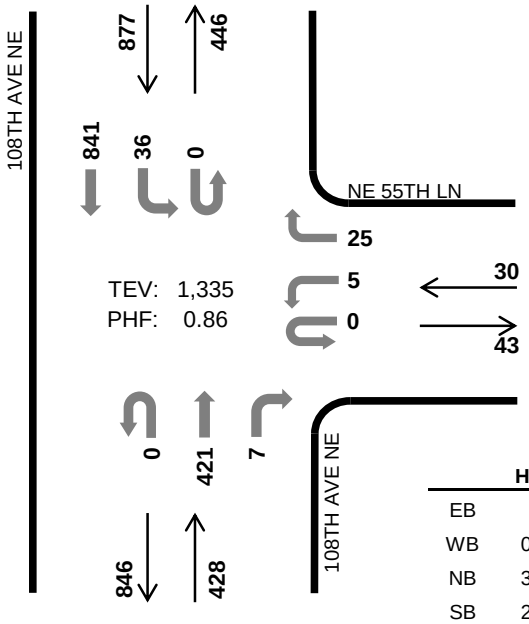
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	5	*8*	0	0	0	0	*0*	6	0	0	0	*6*
4:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	2	0	0	0	*2*
4:30 PM	0	0	5	4	*9*	0	0	0	0	*0*	3	0	0	0	*3*
4:45 PM	0	0	3	3	*6*	0	0	0	1	*1*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**1**	**4**	***5***	**0**	**0**	**0**	**1**	***1***	**2**	**0**	**0**	**1**	*3*
5:15 PM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**4**	**2**	***6***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**1**	**0**	***1***	**5**	**0**	**0**	**0**	***5***
Count Total	0	0	25	27	*52*	0	0	2	3	*5*	18	0	0	1	*19*
Peak Hr	**0**	**0**	**12**	**13**	***25***	**0**	**0**	**2**	**2**	***4***	**7**	**0**	**0**	**1**	***8***

108TH AVE NE
NE 55TH LN

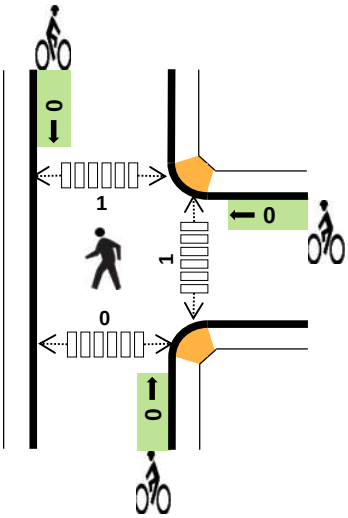
Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.75
NB	3.7%	0.80
SB	2.4%	0.88
TOTAL	2.8%	0.86



Two-Hour Count Summaries

Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				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	0	0	2	0	0	34	1	0	2	129	0	168	0
7:15 AM	0	0	0	0	0	2	0	5	0	0	56	1	0	2	168	0	234	0
7:30 AM	0	0	0	0	0	0	0	5	0	0	53	1	0	10	196	0	265	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**111**	**3**	**0**	**9**	**225**	**0**	**358**	1,025
8:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**131**	**2**	**0**	**13**	**237**	**0**	**388**	1,245
8:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**5**	**0**	**0**	**76**	**0**	**0**	**10**	**175**	**0**	**268**	1,279
8:30 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**6**	**0**	**0**	**103**	**2**	**0**	**4**	**204**	**0**	**321**	**1,335**
8:45 AM	0	0	0	0	0	3	0	5	0	0	115	4	0	11	187	0	325	1,302
Count Total	0	0	0	0	0	10	0	42	0	0	679	14	0	61	1,521	0	2,327	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**25**	**0**	**0**	**421**	**7**	**0**	**36**	**841**	**0**	**1,335**	**0**

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

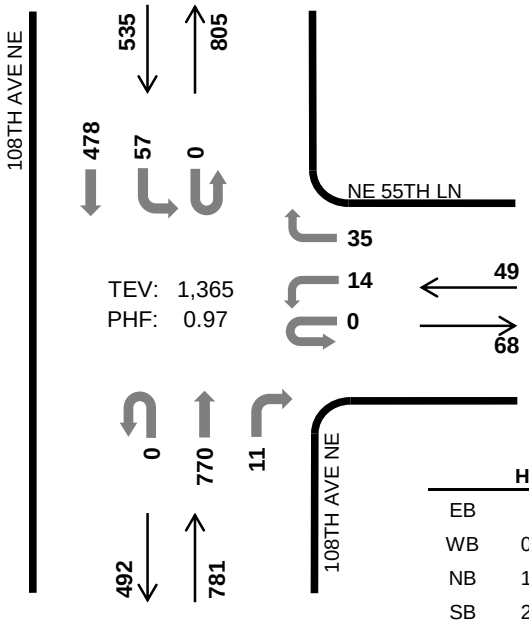
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	4	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	4	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	2	3	*5*	0	0	0	0	*0*	1	0	0	0	*1*
7:45 AM	**0**	**0**	**4**	**5**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**1**	**6**	***7***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:15 AM	**0**	**0**	**7**	**7**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
8:45 AM	0	0	4	5	*9*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	0	0	27	37	*64*	0	0	0	1	*1*	2	0	1	0	*3*
Peak Hr	**0**	**0**	**16**	**21**	***37***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**1**	**0**	***2***

108TH AVE NE
NE 55TH LN

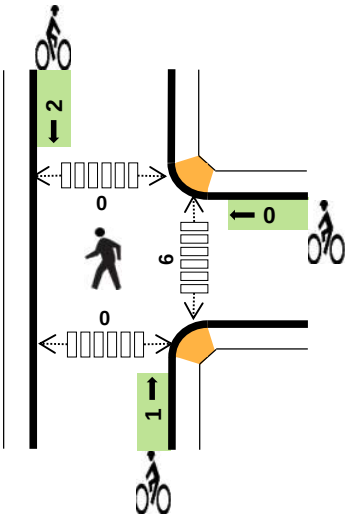
Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.68
NB	1.5%	0.91
SB	2.2%	0.95
TOTAL	1.8%	0.97



Two-Hour Count Summaries

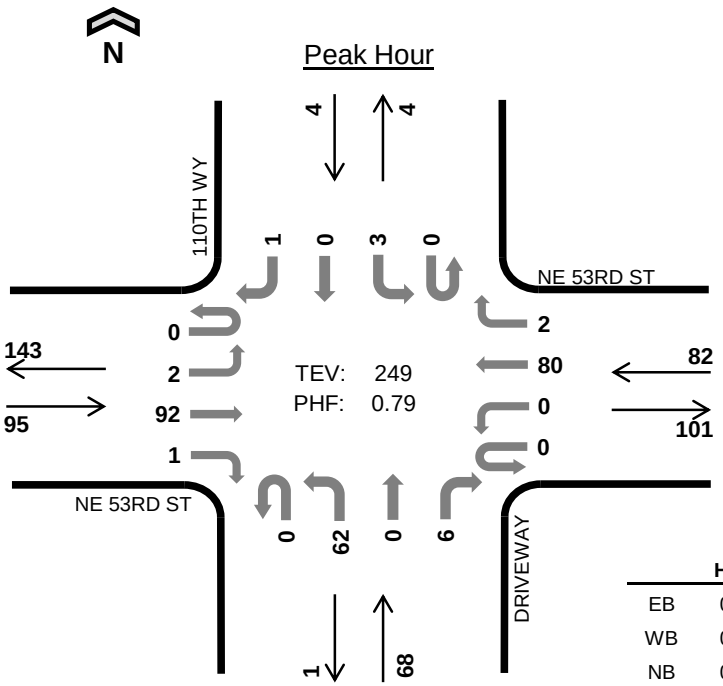
Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	9	0	11	0	0	184	6	0	7	112	0	329	0
4:15 PM	0	0	0	0	0	4	0	9	0	0	202	2	0	6	109	0	332	0
4:30 PM	0	0	0	0	0	4	0	10	0	0	197	8	0	7	104	0	330	0
4:45 PM	0	0	0	0	0	4	0	10	0	0	186	3	0	10	86	0	299	1,290
5:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**16**	**0**	**0**	**190**	**3**	**0**	**10**	**122**	**0**	**343**	1,304
5:15 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**8**	**0**	**0**	**210**	**4**	**0**	**12**	**114**	**0**	**351**	1,323
5:30 PM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**3**	**0**	**0**	**203**	**2**	**0**	**12**	**124**	**0**	**350**	1,343
5:45 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**8**	**0**	**0**	**167**	**2**	**0**	**23**	**118**	**0**	**321**	**1,365**
Count Total	0	0	0	0	0	35	0	75	0	0	1,539	30	0	87	889	0	2,655	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**35**	**0**	**0**	**770**	**11**	**0**	**57**	**478**	**0**	**1,365**	**0**

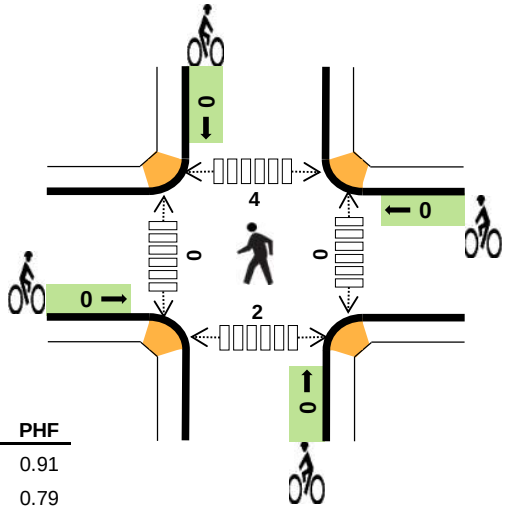
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	5	*8*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	2	2	*4*	0	0	0	0	*0*	2	0	0	0	*2*
4:30 PM	0	0	6	4	*10*	0	0	0	0	*0*	2	0	0	0	*2*
4:45 PM	0	0	3	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**1**	***1***	**1**	**0**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**4**	**2**	***6***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**0**	***5***
Count Total	0	0	26	26	*52*	0	0	1	2	*3*	10	0	0	0	*10*
Peak Hr	**0**	**0**	**12**	**12**	***24***	**0**	**0**	**1**	**2**	***3***	**6**	**0**	**0**	**0**	***6***

110TH WY
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	0.0%	0.91
WB	0.0%	0.79
NB	0.0%	0.53
SB	25.0%	0.50
TOTAL	0.4%	0.79

Two-Hour Count Summaries

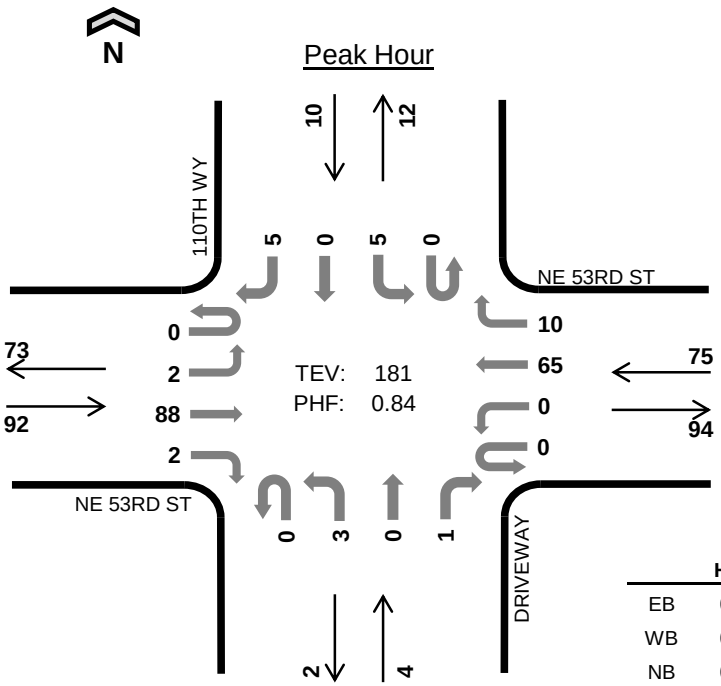
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				DRIVEWAY Northbound				110TH WY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	9	1	0	0	10	2	0	1	0	0	0	0	0	0	23	0
7:15 AM	0	0	11	1	0	0	13	0	0	3	0	0	0	0	0	0	28	0
7:30 AM	0	0	10	0	0	0	14	0	0	9	0	3	0	0	0	0	36	0
7:45 AM	**0**	**0**	**26**	**0**	**0**	**0**	**21**	**1**	**0**	**23**	**0**	**5**	**0**	**1**	**0**	**1**	**78**	165
8:00 AM	**0**	**1**	**23**	**0**	**0**	**0**	**22**	**1**	**0**	**31**	**0**	**1**	**0**	**0**	**0**	**0**	**79**	221
8:15 AM	**0**	**0**	**26**	**0**	**0**	**0**	**11**	**0**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**44**	237
8:30 AM	**0**	**1**	**17**	**1**	**0**	**0**	**26**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**48**	**249**
8:45 AM	0	0	21	1	0	0	29	4	0	4	0	0	0	2	0	0	61	232
Count Total	0	2	143	4	0	0	146	8	0	79	0	9	0	5	0	1	397	0
Peak Hour	**0**	**2**	**92**	**1**	**0**	**0**	**80**	**2**	**0**	**62**	**0**	**6**	**0**	**3**	**0**	**1**	**249**	**0**

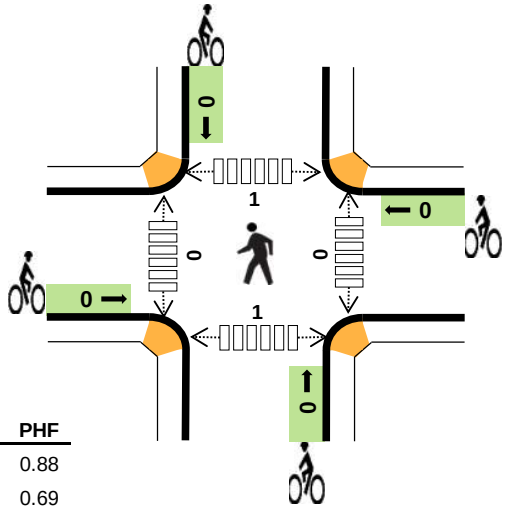
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	1	0	*2*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**1**	*4*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
8:45 AM	0	0	0	0	*0*	1	0	0	0	*1*	0	0	1	0	*1*
Count Total	0	0	0	1	*1*	1	0	0	0	*1*	0	1	7	2	*10*
Peak Hour	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**4**	**2**	***6***

110TH WY
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.88
WB	0.0%	0.69
NB	0.0%	0.50
SB	0.0%	0.63
TOTAL	0.0%	0.84

Two-Hour Count Summaries

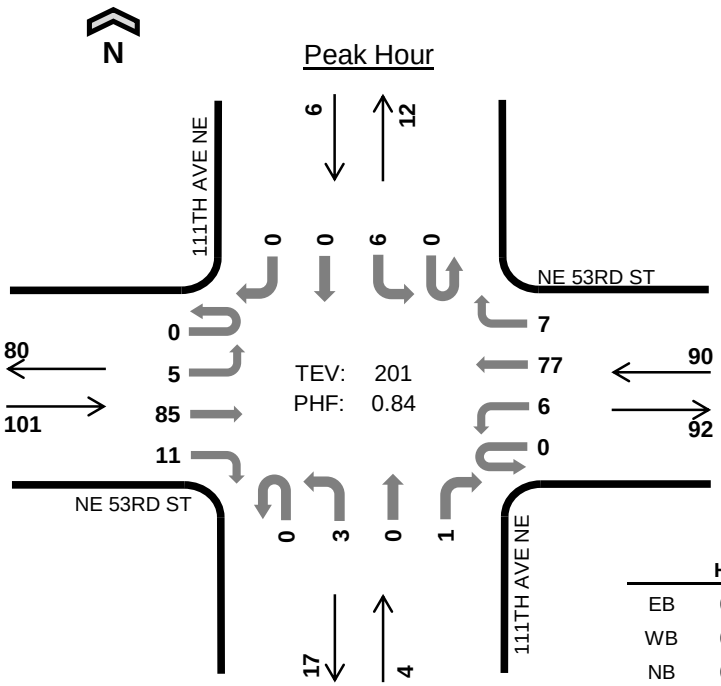
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				DRIVEWAY Northbound				110TH WY Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	18	1	0	0	20	0	0	5	0	1	0	0	0	0	45	0
4:15 PM	0	1	16	1	0	0	24	0	0	2	0	1	0	3	0	0	48	0
4:30 PM	0	0	15	0	0	0	20	2	0	4	0	1	0	1	0	0	43	0
4:45 PM	0	2	20	1	0	0	11	0	0	3	0	1	0	2	0	0	40	176
5:00 PM	**0**	**1**	**22**	**0**	**0**	**0**	**14**	**3**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**3**	**45**	176
5:15 PM	**0**	**0**	**21**	**0**	**0**	**0**	**11**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**33**	161
5:30 PM	**0**	**0**	**21**	**1**	**0**	**0**	**24**	**3**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**1**	**54**	172
5:45 PM	**0**	**1**	**24**	**1**	**0**	**0**	**16**	**3**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**1**	**49**	**181**
Count Total	0	5	157	5	0	0	140	12	0	17	0	5	0	11	0	5	357	0
Peak Hour	**0**	**2**	**88**	**2**	**0**	**0**	**65**	**10**	**0**	**3**	**0**	**1**	**0**	**5**	**0**	**5**	**181**	**0**

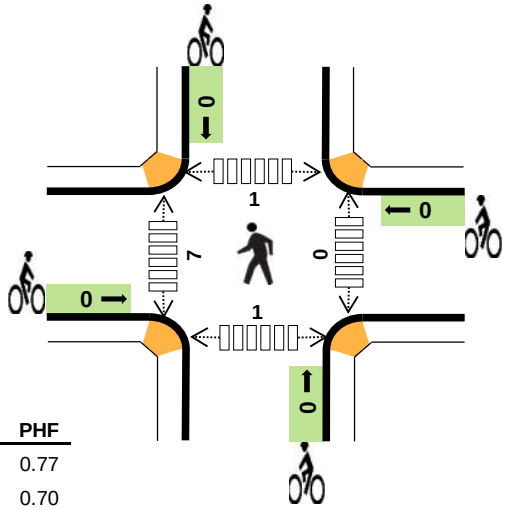
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*1*	0	0	0	0	*0*	0	0	1	0	*1*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
4:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	2	0	0	*3*	0	0	0	0	*0*	0	0	4	1	*5*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**1**	***2***

111TH AVE NE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	0.0%	0.77
WB	0.0%	0.70
NB	0.0%	0.50
SB	0.0%	0.38
TOTAL	0.0%	0.84

Two-Hour Count Summaries

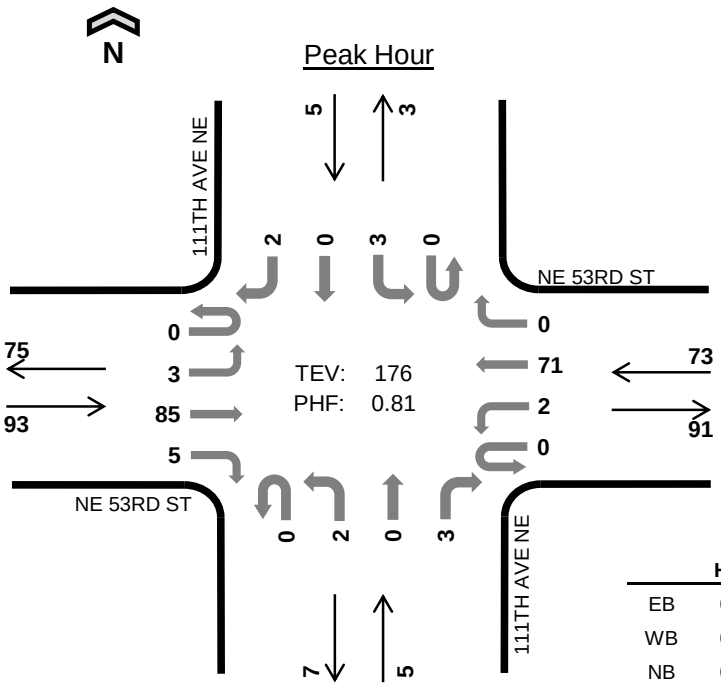
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	8	1	0	1	11	1	0	1	0	0	0	1	0	0	24	0
7:15 AM	0	2	8	1	0	3	13	1	0	1	0	2	0	2	0	0	33	0
7:30 AM	0	0	11	2	0	1	14	0	0	0	0	0	0	1	0	0	29	0
7:45 AM	**0**	**1**	**26**	**6**	**0**	**2**	**21**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**60**	146
8:00 AM	**0**	**0**	**21**	**3**	**0**	**1**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	167
8:15 AM	**0**	**3**	**23**	**1**	**0**	**0**	**9**	**4**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**44**	178
8:30 AM	**0**	**1**	**15**	**1**	**0**	**3**	**27**	**2**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**52**	**201**
8:45 AM	0	1	22	0	0	1	29	0	0	1	0	0	0	0	0	0	54	195
Count Total	0	8	134	15	0	12	144	9	0	6	0	3	0	10	0	0	341	0
Peak Hour	**0**	**5**	**85**	**11**	**0**	**6**	**77**	**7**	**0**	**3**	**0**	**1**	**0**	**6**	**0**	**0**	**201**	**0**

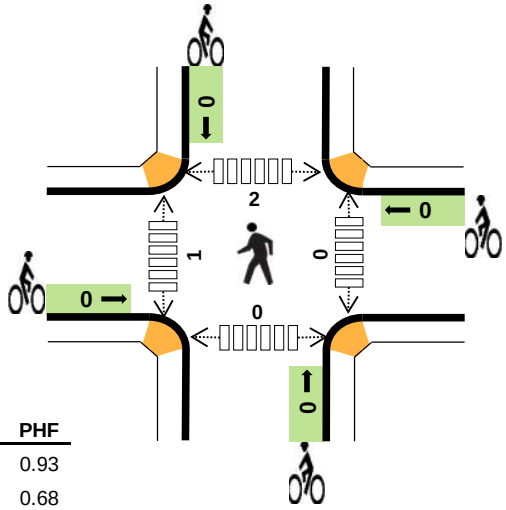
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	1	1	*4*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	*2*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**1**	*3*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**1**	**0**	***3***
8:45 AM	0	0	0	0	*0*	1	0	0	0	*1*	0	0	1	0	*1*
Count Total	0	0	0	0	*0*	1	0	0	0	*1*	2	7	3	2	*14*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**7**	**1**	**1**	***9***

111TH AVE NE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.93
WB	0.0%	0.68
NB	0.0%	0.31
SB	0.0%	0.63
TOTAL	0.0%	0.81

Two-Hour Count Summaries

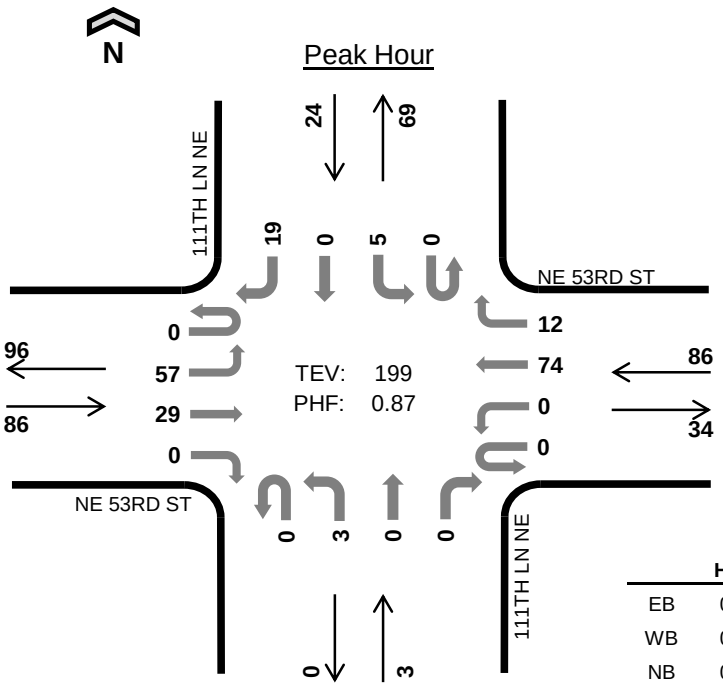
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	14	4	0	1	18	1	0	1	0	0	0	3	0	0	42	0
4:15 PM	1	1	16	0	0	1	22	2	0	2	0	0	0	3	1	0	49	0
4:30 PM	0	1	16	1	0	1	23	2	0	0	0	1	0	0	0	0	45	0
4:45 PM	0	3	13	4	0	0	12	1	0	0	0	0	0	0	0	0	33	169
5:00 PM	**0**	**0**	**22**	**1**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**41**	168
5:15 PM	**0**	**1**	**18**	**1**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**32**	151
5:30 PM	**0**	**1**	**22**	**2**	**0**	**0**	**27**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**54**	160
5:45 PM	**0**	**1**	**23**	**1**	**0**	**2**	**17**	**0**	**0**	**1**	**0**	**3**	**0**	**1**	**0**	**0**	**49**	**176**
Count Total	1	8	144	14	0	5	146	6	0	5	0	4	0	9	1	2	345	0
Peak Hour	**0**	**3**	**85**	**5**	**0**	**2**	**71**	**0**	**0**	**2**	**0**	**3**	**0**	**3**	**0**	**2**	**176**	**0**

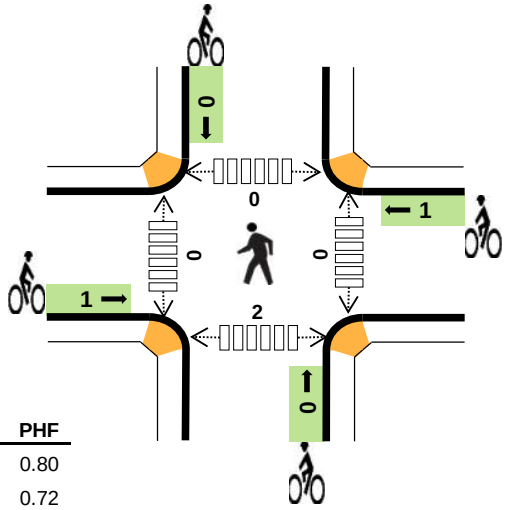
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*1*	0	0	0	0	*0*	0	1	1	0	*2*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	2	*3*
4:30 PM	0	1	1	0	*2*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	2	0	0	2	*4*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**1**	**0**	*2*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	2	1	0	*4*	0	0	0	0	*0*	2	2	5	4	*13*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**2**	**0**	***3***

111TH LN NE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	0.0%	0.80
WB	0.0%	0.72
NB	0.0%	0.25
SB	0.0%	0.46
TOTAL	0.0%	0.87

Two-Hour Count Summaries

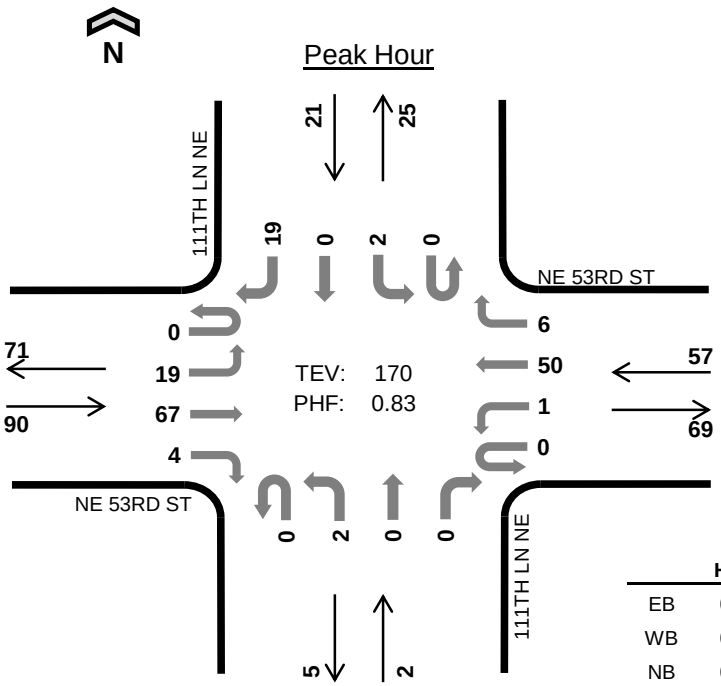
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	7	2	0	0	0	10	0	0	2	0	0	0	1	0	1	23	0
7:15 AM	0	7	4	1	0	0	14	0	0	2	0	0	0	0	0	1	29	0
7:30 AM	0	5	7	0	0	0	15	1	0	0	0	0	0	0	0	0	28	0
7:45 AM	0	16	12	0	0	0	20	3	0	3	0	0	0	0	0	1	55	135
8:00 AM	**0**	**14**	**6**	**0**	**0**	**0**	**20**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**46**	158
8:15 AM	**0**	**19**	**8**	**0**	**0**	**0**	**9**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**42**	171
8:30 AM	**0**	**11**	**6**	**0**	**0**	**0**	**27**	**3**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**2**	**54**	197
8:45 AM	**0**	**13**	**9**	**0**	**0**	**0**	**18**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**12**	**57**	**199**
Count Total	0	92	54	1	0	0	133	16	0	10	0	0	0	6	0	22	334	0
Peak Hour	**0**	**57**	**29**	**0**	**0**	**0**	**74**	**12**	**0**	**3**	**0**	**0**	**0**	**5**	**0**	**19**	**199**	**0**

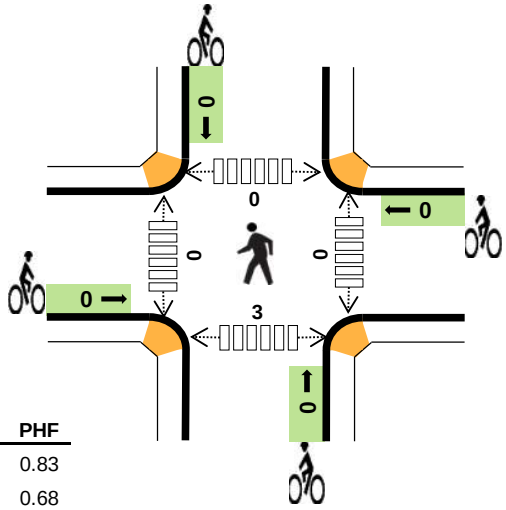
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	2	*4*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	0	0	*2*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	0	6	*8*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***
Count Total	0	0	0	0	*0*	1	1	0	0	*2*	4	0	2	10	*16*
Peak Hour	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**2**	***2***

111TH LN NE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.83
WB	0.0%	0.68
NB	0.0%	0.25
SB	0.0%	0.58
TOTAL	0.0%	0.83

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE 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	6	11	0	0	0	12	1	0	0	0	0	0	2	0	8	40	0
4:15 PM	0	3	18	0	0	0	15	1	0	1	0	0	0	0	0	8	46	0
4:30 PM	0	2	13	1	0	0	10	0	0	0	0	0	0	1	0	16	43	0
4:45 PM	0	3	12	1	0	0	11	2	0	0	0	0	0	2	0	2	33	162
5:00 PM	**0**	**5**	**17**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**6**	**39**	161
5:15 PM	**0**	**2**	**15**	**1**	**0**	**0**	**7**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**31**	146
5:30 PM	**0**	**3**	**18**	**2**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**49**	152
5:45 PM	**0**	**9**	**17**	**1**	**0**	**1**	**16**	**4**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**51**	**170**
Count Total	0	33	121	6	0	1	98	10	0	3	0	0	0	7	0	53	332	0
Peak Hour	**0**	**19**	**67**	**4**	**0**	**1**	**50**	**6**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**19**	**170**	**0**

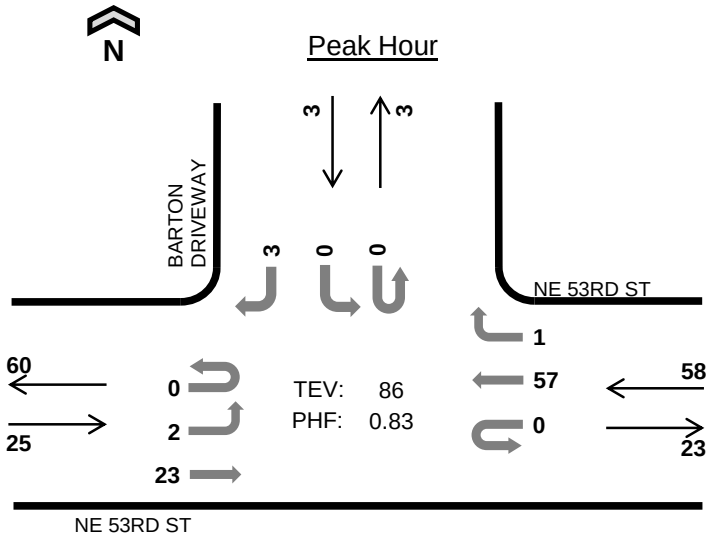
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

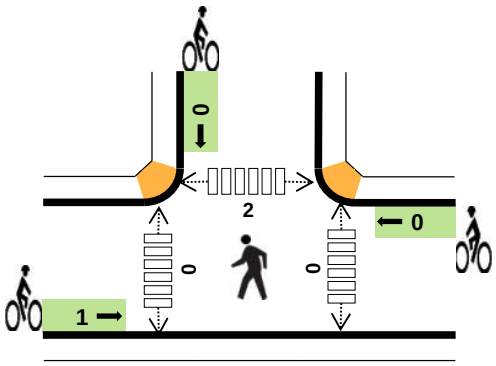
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	1	0	*1*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	3	*4*
4:30 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	0	1	0	0	*1*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

BARTON DRIVEWAY
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.69
WB	0.0%	0.76
NB	-	-
SB	0.0%	0.38
TOTAL	0.0%	0.83

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DRIVEWAY 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	2	0	0	0	7	0	0	0	0	0	0	0	0	0	9	0
7:15 AM	0	1	0	0	0	0	7	1	0	0	0	0	0	0	0	2	11	0
7:30 AM	0	0	5	0	0	0	10	0	0	0	0	0	0	0	0	0	15	0
7:45 AM	0	1	5	0	0	0	16	0	0	0	0	0	0	0	0	1	23	58
8:00 AM	**0**	**1**	**4**	**0**	**0**	**0**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**21**	70
8:15 AM	**0**	**0**	**7**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	74
8:30 AM	**0**	**0**	**4**	**0**	**0**	**0**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**24**	83
8:45 AM	**0**	**1**	**8**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**86**
Count Total	0	4	35	0	0	0	97	2	0	0	0	0	0	0	0	6	144	0
Peak Hour	**0**	**2**	**23**	**0**	**0**	**0**	**57**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**86**	**0**

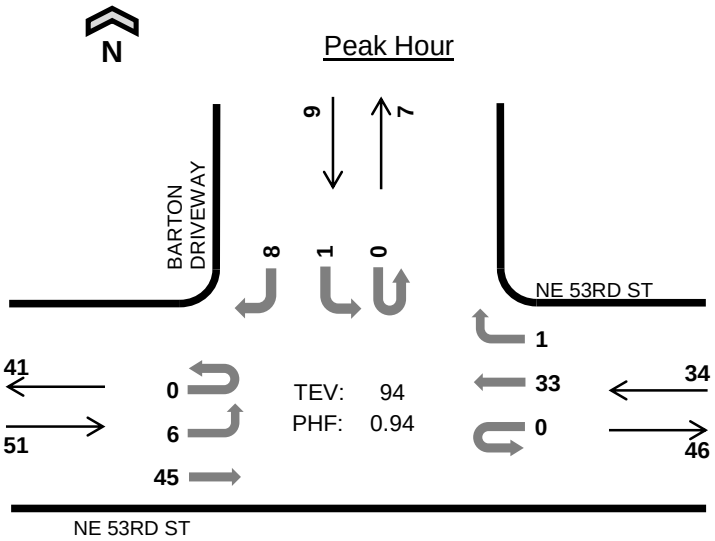
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

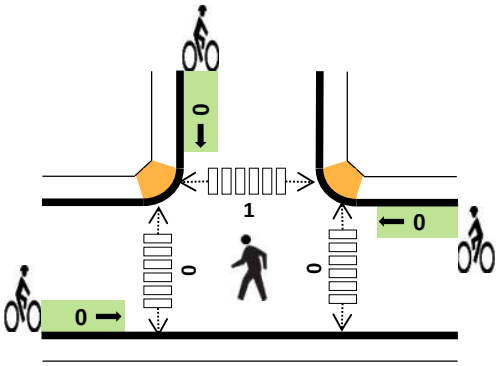
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	0	*1*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	0	0	*0*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

BARTON DRIVEWAY
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour





	HV %:	PHF
EB	0.0%	0.71
WB	0.0%	0.57
NB	-	-
SB	0.0%	0.38
TOTAL	0.0%	0.94

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DRIVEWAY 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	2	8	0	0	0	9	0	0	0	0	0	0	1	0	1	21	0
4:15 PM	0	1	12	0	0	0	12	1	0	0	0	0	0	1	0	1	28	0
4:30 PM	0	1	8	0	0	0	6	0	0	0	0	0	0	0	0	2	17	0
4:45 PM	0	1	8	0	0	0	8	0	0	0	0	0	0	1	0	0	18	84
5:00 PM	**0**	**1**	**12**	**0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**25**	88
5:15 PM	**0**	**2**	**10**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**20**	80
5:30 PM	**0**	**3**	**15**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	88
5:45 PM	**0**	**0**	**8**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**24**	**94**
Count Total	0	11	81	0	0	0	68	2	0	0	0	0	0	4	0	12	178	0
Peak Hour	**0**	**6**	**45**	**0**	**0**	**0**	**33**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**8**	**94**	**0**

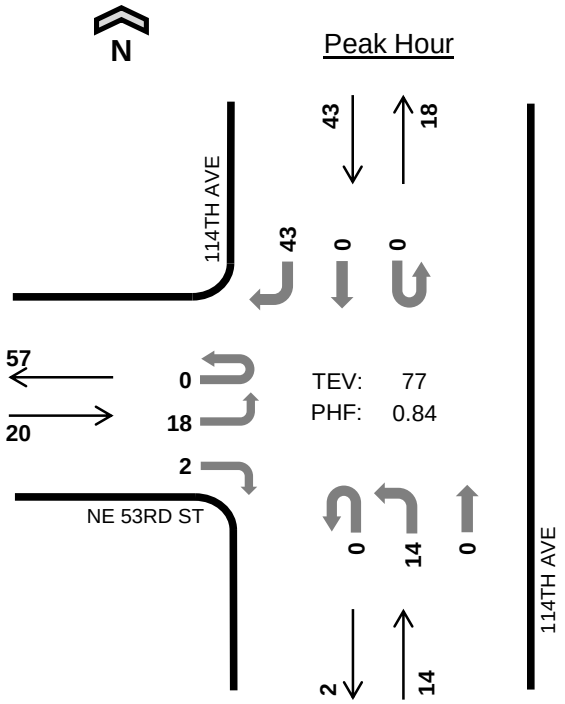
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

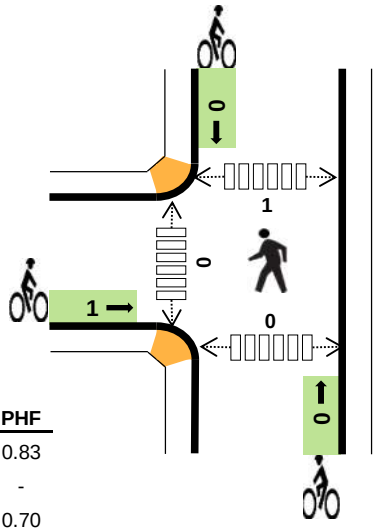
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
4:45 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	4	0	*4*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	1	0	0	*1*	0	0	0	0	*0*	0	0	8	0	*8*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***

114TH AVE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.83
WB	-	-
NB	0.0%	0.70
SB	0.0%	0.77
TOTAL	0.0%	0.84

Two-Hour Count Summaries

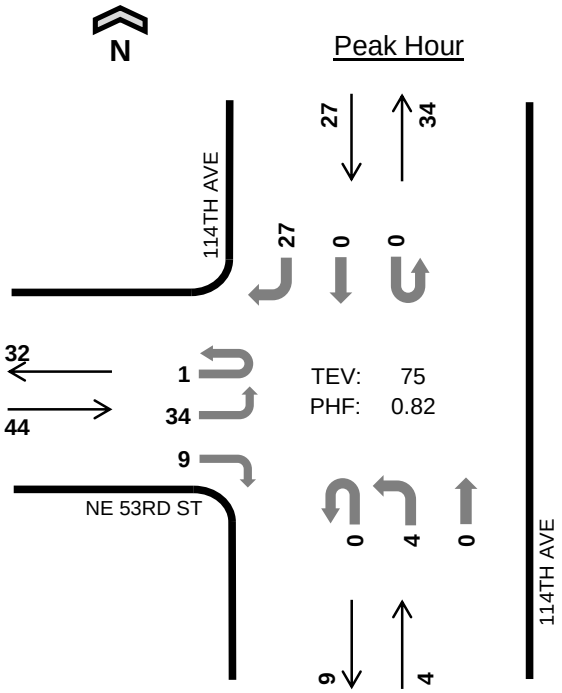
Interval Start	NE 53RD ST				0				114TH AVE				114TH AVE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	5	8	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	8	0
7:30 AM	0	1	0	2	0	0	0	0	0	2	0	0	0	0	0	5	10	0
7:45 AM	0	4	0	1	0	0	0	0	0	4	0	0	0	0	0	12	21	47
8:00 AM	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**11**	**19**	58
8:15 AM	**0**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**7**	**13**	63
8:30 AM	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**11**	**22**	75
8:45 AM	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**14**	**23**	**77**
Count Total	0	25	0	5	0	0	0	0	0	22	0	0	0	0	0	72	124	0
Peak Hour	**0**	**18**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**43**	**77**	**0**

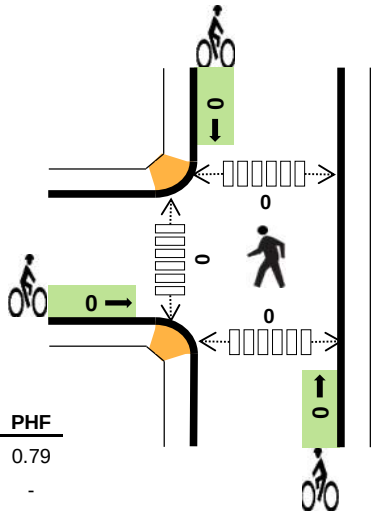
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***
Count Total	0	0	0	0	*0*	1	0	0	0	*1*	0	0	1	0	*1*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**1**	**0**	***1***

114TH AVE
NE 53RD ST

Date: Thu, Mar 03, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.79
WB	-	-
NB	0.0%	0.50
SB	0.0%	0.48
TOTAL	0.0%	0.82

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				0 Westbound				114TH AVE Northbound				114TH AVE 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	8	0	2	0	0	0	0	0	0	0	0	0	0	0	9	19	0
4:15 PM	0	9	0	1	0	0	0	0	0	3	0	0	0	0	0	8	21	0
4:30 PM	0	7	0	2	0	0	0	0	0	1	0	0	0	0	0	6	16	0
4:45 PM	0	8	0	1	0	0	0	0	0	2	0	0	0	0	1	6	18	74
5:00 PM	**0**	**9**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**17**	72
5:15 PM	**0**	**7**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**15**	66
5:30 PM	**0**	**12**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**20**	70
5:45 PM	**1**	**6**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**14**	**23**	**75**
Count Total	1	66	0	15	0	0	0	0	0	10	0	0	0	0	1	56	149	0
Peak Hour	**1**	**34**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**27**	**75**	**0**

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

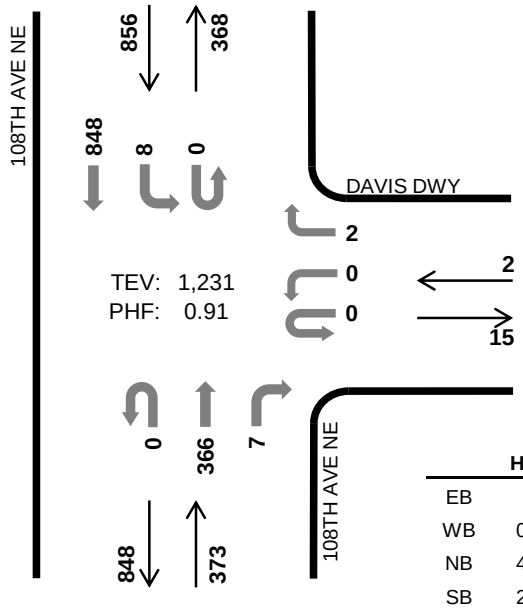
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	1	0	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	0	1	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***

108TH AVE NE
DAVIS DWY

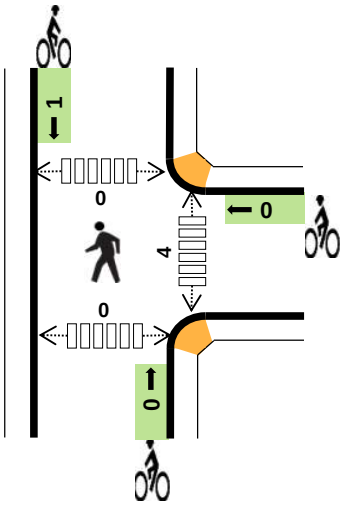
Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.50
NB	4.0%	0.91
SB	2.5%	0.91
TOTAL	2.9%	0.91



Two-Hour Count Summaries

Interval Start	0				DAVIS DWY				108TH AVE NE				108TH AVE NE				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	0	0	1	0	0	38	0	0	3	132	0	174	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	53	1	0	2	183	0	240	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**92**	**2**	**0**	**2**	**204**	**0**	**300**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**101**	**2**	**0**	**3**	**231**	**0**	**338**	1,052
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**90**	**3**	**0**	**2**	**228**	**0**	**323**	1,201
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**83**	**0**	**0**	**1**	**185**	**0**	**270**	**1,231**
8:30 AM	0	0	0	0	0	1	0	0	0	0	97	0	0	0	185	0	283	1,214
8:45 AM	0	0	0	0	0	1	0	0	0	0	99	0	0	1	206	0	307	1,183
Count Total	0	0	0	0	0	2	0	4	0	0	653	8	0	14	1,554	0	2,235	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**366**	**7**	**0**	**8**	**848**	**0**	**1,231**	**0**

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

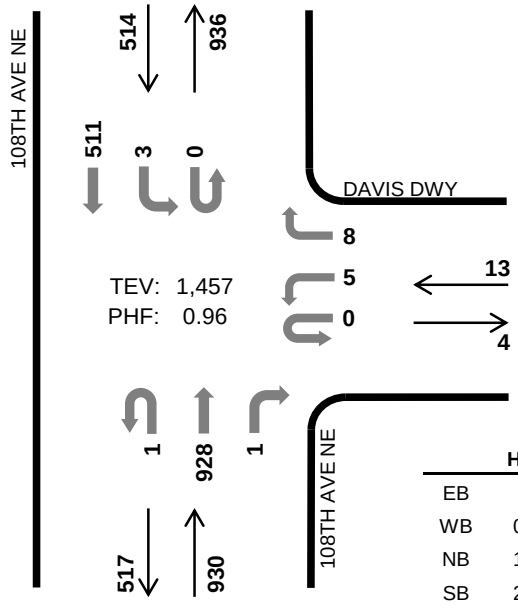
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	2	4	*6*	0	0	0	0	*0*	1	0	1	0	*2*
7:15 AM	0	0	3	6	*9*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	**0**	**0**	**5**	**5**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**0**	**2**	**6**	***8***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	*3*
8:00 AM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**5**	**6**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	0	2	3	*5*	0	0	0	0	*0*	2	0	0	0	*2*
8:45 AM	0	0	8	5	*13*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	0	0	30	39	*69*	0	0	0	1	*1*	10	0	1	0	*11*
Peak Hr	**0**	**0**	**15**	**21**	***36***	**0**	**0**	**0**	**1**	***1***	**4**	**0**	**0**	**0**	***4***

108TH AVE NE
DAVIS DWY

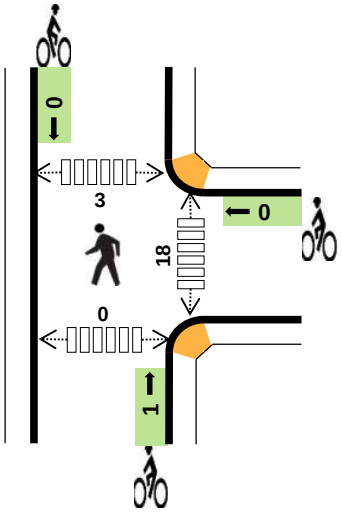
Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.46
NB	1.2%	0.88
SB	2.3%	0.92
TOTAL	1.6%	0.96



Two-Hour Count Summaries

Interval Start	0				DAVIS DWY				108TH AVE NE				108TH AVE NE				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	2	0	1	0	0	217	0	0	1	125	0	346	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	191	1	0	0	106	0	298	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**217**	**0**	**0**	**1**	**124**	**0**	**346**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**221**	**0**	**0**	**0**	**139**	**0**	**362**	1,352
5:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**6**	**1**	**0**	**225**	**1**	**0**	**1**	**134**	**0**	**369**	1,375
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**265**	**0**	**0**	**1**	**114**	**0**	**380**	**1,457**
5:30 PM	0	0	0	0	0	0	0	2	0	0	207	0	0	2	122	0	333	1,444
5:45 PM	0	0	0	0	0	0	0	0	0	0	184	0	0	4	126	0	314	1,396
Count Total	0	0	0	0	0	7	0	11	1	0	1,727	2	0	10	990	0	2,748	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**8**	**1**	**0**	**928**	**1**	**0**	**3**	**511**	**0**	**1,457**	**0**

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

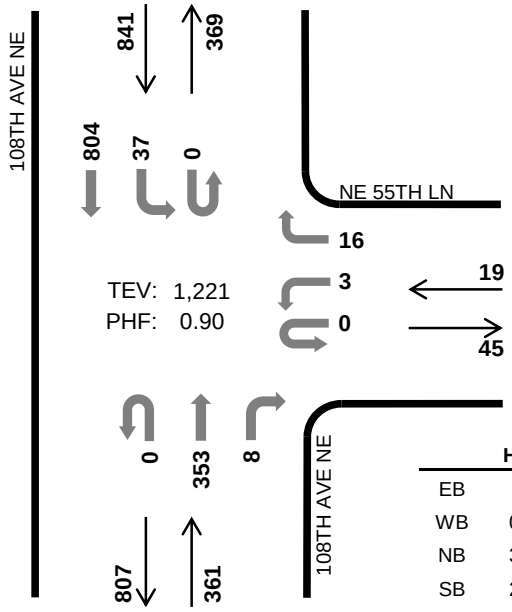
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	5	*7*	0	0	1	0	*1*	0	0	1	0	*1*
4:15 PM	0	0	1	2	*3*	0	0	0	0	*0*	1	0	0	0	*1*
4:30 PM	**0**	**0**	**2**	**4**	***6***	**0**	**0**	**1**	**0**	***1***	**2**	**0**	**1**	**0**	*3*
4:45 PM	**0**	**0**	**3**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
5:00 PM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**6**	**0**	**1**	**0**	*7*
5:15 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**9**	**0**	**1**	**0**	***10***
5:30 PM	0	0	3	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	5	1	*6*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	0	0	22	20	*42*	0	0	2	0	*2*	20	0	4	0	*24*
Peak Hr	**0**	**0**	**11**	**12**	***23***	**0**	**0**	**1**	**0**	***1***	**18**	**0**	**3**	**0**	***21***

108TH AVE NE
NE 55TH LN

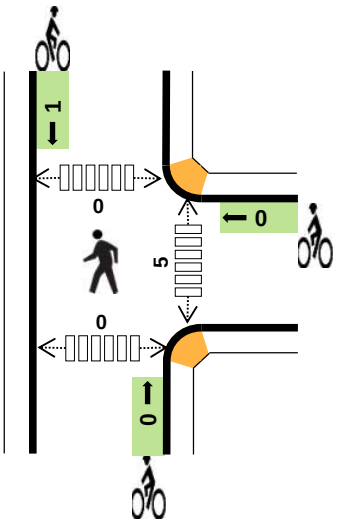
Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.53
NB	3.9%	0.89
SB	2.6%	0.91
TOTAL	2.9%	0.90



Two-Hour Count Summaries

Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				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	1	0	4	0	0	34	1	0	3	124	0	167	0
7:15 AM	0	0	0	0	0	2	0	2	0	0	54	2	0	4	179	0	243	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**85**	**0**	**0**	**9**	**193**	**0**	**296**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**97**	**4**	**0**	**11**	**221**	**0**	**338**	1,044
8:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**89**	**1**	**0**	**11**	**217**	**0**	**321**	1,198
8:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**82**	**3**	**0**	**6**	**173**	**0**	**266**	**1,221**
8:30 AM	0	0	0	0	0	0	0	7	0	0	90	5	0	6	181	0	289	1,214
8:45 AM	0	0	0	0	0	2	0	3	0	0	97	6	0	19	187	0	314	1,190
Count Total	0	0	0	0	0	8	0	32	0	0	628	22	0	69	1,475	0	2,234	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**16**	**0**	**0**	**353**	**8**	**0**	**37**	**804**	**0**	**1,221**	**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	2	4	*6*	0	0	0	0	*0*	1	0	0	0	*1*
7:15 AM	0	0	3	6	*9*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	**0**	**0**	**5**	**5**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**0**	**2**	**7**	***9***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	*4*
8:00 AM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**4**	**6**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:30 AM	0	0	2	3	*5*	0	0	0	0	*0*	1	0	0	0	*1*
8:45 AM	0	0	8	6	*14*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	0	0	29	41	*70*	0	0	0	1	*1*	10	0	0	0	*10*
Peak Hr	**0**	**0**	**14**	**22**	***36***	**0**	**0**	**0**	**1**	***1***	**5**	**0**	**0**	**0**	***5***

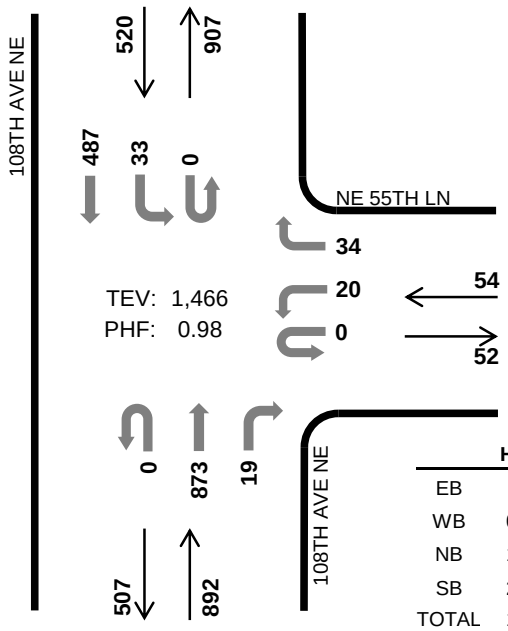
Mark Skaggs: (425) 250-0777 mark.skaggs@idaxdata.com

108TH AVE NE
NE 55TH LN

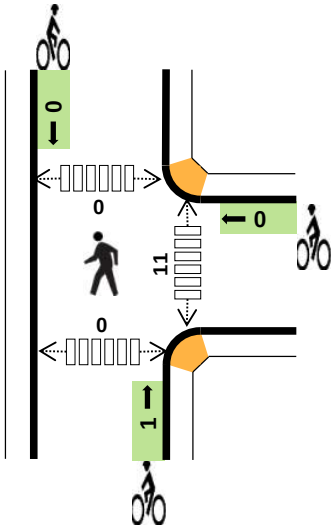
Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.68
NB	1.3%	0.93
SB	2.3%	0.93
TOTAL	1.6%	0.98



Two-Hour Count Summaries

Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				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	5	0	16	0	0	209	2	0	12	115	0	359	0
4:15 PM	0	0	0	0	0	6	0	7	1	0	180	9	0	8	100	0	311	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**11**	**0**	**0**	**208**	**6**	**0**	**11**	**114**	**0**	**359**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**6**	**0**	**0**	**213**	**2**	**0**	**8**	**132**	**0**	**364**	1,393
5:00 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**7**	**0**	**0**	**218**	**6**	**0**	**9**	**128**	**0**	**370**	1,404
5:15 PM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**10**	**0**	**0**	**234**	**5**	**0**	**5**	**113**	**0**	**373**	**1,466**
5:30 PM	0	0	0	0	0	8	0	14	0	0	189	7	0	13	108	0	339	1,446
5:45 PM	0	0	0	0	0	5	0	18	0	0	164	1	0	16	115	0	319	1,401
Count Total	0	0	0	0	0	44	0	89	1	0	1,615	38	0	82	925	0	2,794	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**34**	**0**	**0**	**873**	**19**	**0**	**33**	**487**	**0**	**1,466**	**0**

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

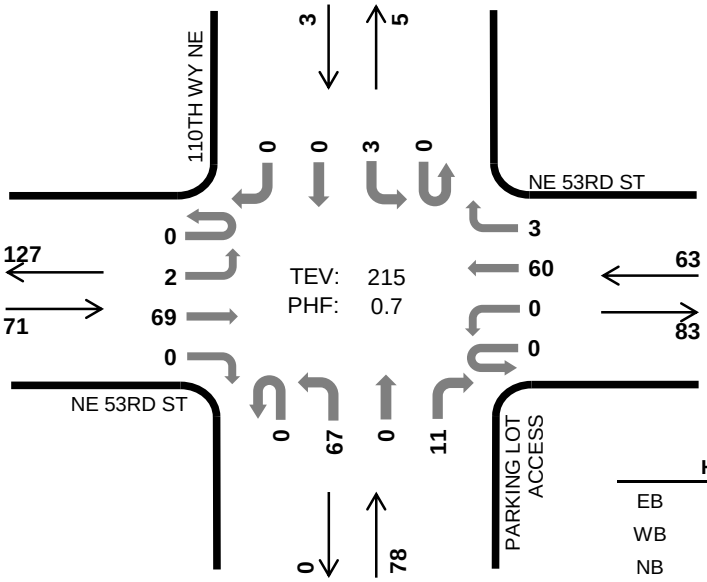
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	5	*7*	0	0	1	0	*1*	0	0	0	0	*0*
4:15 PM	0	1	3	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**4**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**4**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**10**	**0**	**0**	**0**	***10***
5:30 PM	0	0	3	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	5	4	*9*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	0	1	25	24	*50*	0	0	2	0	*2*	12	0	0	0	*12*
Peak Hr	**0**	**0**	**12**	**12**	***24***	**0**	**0**	**1**	**0**	***1***	**11**	**0**	**0**	**0**	***11***

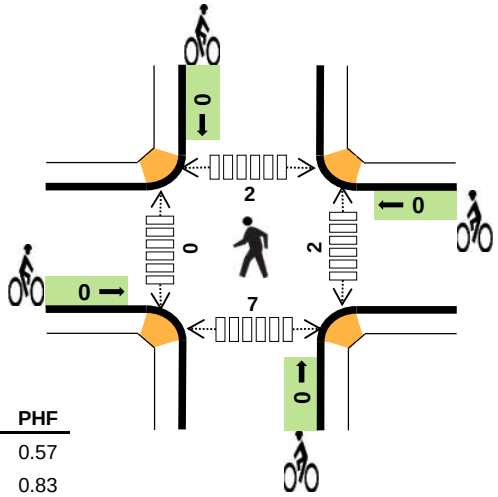
110TH WY NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

N

Peak Hour





	HV %:	PHF
EB	2.8%	0.57
WB	0.0%	0.83
NB	0.0%	0.70
SB	0.0%	0.38
TOTAL	0.9%	0.70

Two-Hour Count Summaries

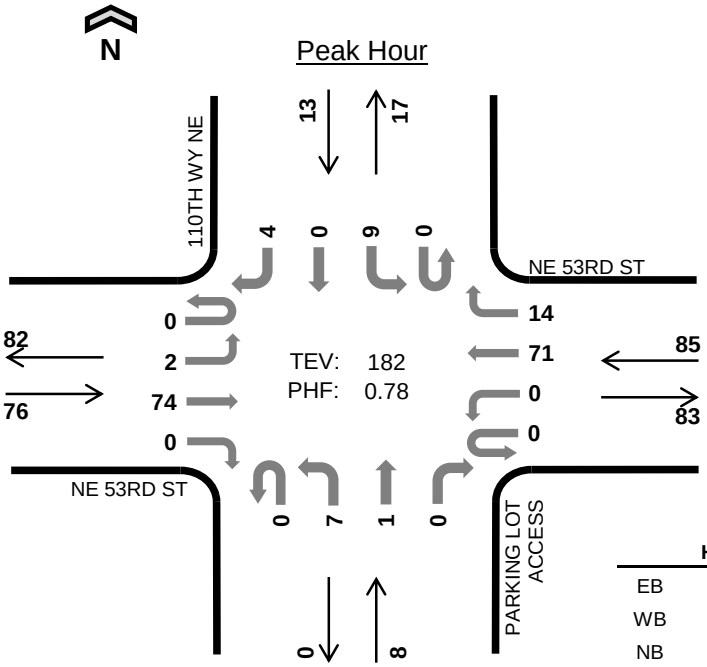
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				PARKING LOT ACCESS Northbound				110TH WY NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	11	0	0	0	10	0	0	1	0	0	0	0	0	0	22	0
7:15 AM	0	0	7	0	0	0	13	2	0	6	0	0	0	0	0	0	28	0
7:30 AM	**0**	**1**	**11**	**0**	**0**	**0**	**19**	**0**	**0**	**14**	**0**	**1**	**0**	**1**	**0**	**0**	**47**	0
7:45 AM	**0**	**0**	**31**	**0**	**0**	**0**	**17**	**1**	**0**	**22**	**0**	**6**	**0**	**0**	**0**	**0**	**77**	174
8:00 AM	**0**	**1**	**18**	**0**	**0**	**0**	**12**	**1**	**0**	**23**	**0**	**4**	**0**	**2**	**0**	**0**	**61**	213
8:15 AM	**0**	**0**	**9**	**0**	**0**	**0**	**12**	**1**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**215**
8:30 AM	0	2	15	0	0	0	22	0	0	4	0	0	0	0	0	0	43	211
8:45 AM	0	0	26	0	0	0	12	1	0	0	0	0	0	1	0	0	40	174
Count Total	0	4	128	0	0	0	117	6	0	78	0	11	0	4	0	0	348	0
Peak Hour	**0**	**2**	**69**	**0**	**0**	**0**	**60**	**3**	**0**	**67**	**0**	**11**	**0**	**3**	**0**	**0**	**215**	**0**

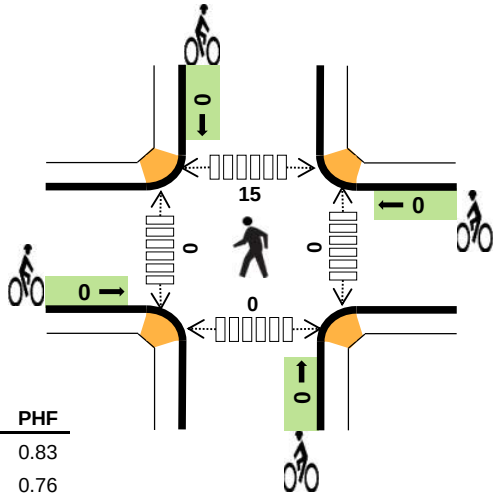
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
7:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**2**	**2**	*6*
7:45 AM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	1	0	*3*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
Count Total	2	0	0	0	*2*	0	0	0	0	*0*	2	2	3	9	*16*
Peak Hour	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**2**	**7**	***11***

110TH WY NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.83
WB	1.2%	0.76
NB	0.0%	0.67
SB	0.0%	0.65
TOTAL	0.5%	0.78

Two-Hour Count Summaries

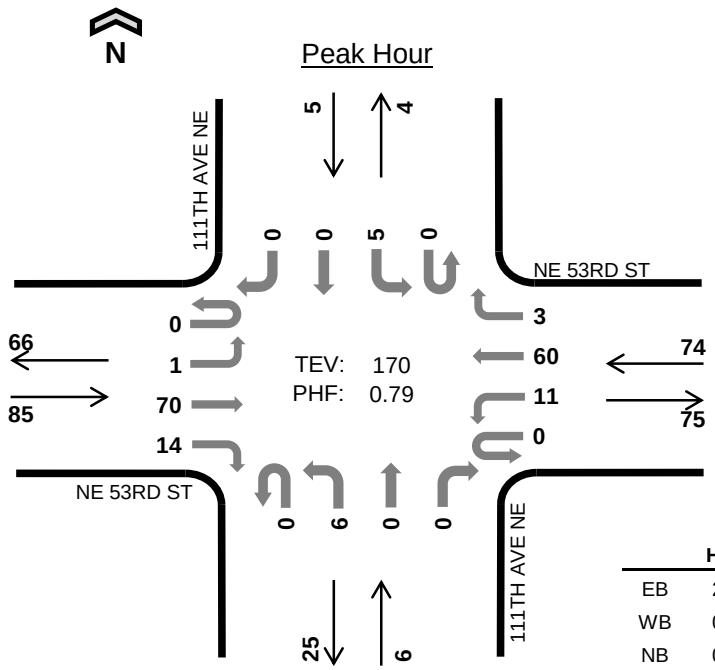
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				PARKING LOT ACCESS Northbound				110TH WY NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	16	1	0	0	16	1	0	4	0	0	0	1	0	2	41	0
4:15 PM	0	1	9	0	0	0	10	3	0	2	0	0	0	1	0	2	28	0
4:30 PM	0	2	22	0	0	0	20	1	0	2	0	0	0	2	0	0	49	0
4:45 PM	0	1	24	0	0	0	16	2	0	1	0	0	0	0	0	1	45	163
5:00 PM	**0**	**1**	**21**	**0**	**0**	**0**	**15**	**7**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**48**	170
5:15 PM	**0**	**0**	**16**	**0**	**0**	**0**	**14**	**2**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**35**	177
5:30 PM	**0**	**0**	**15**	**0**	**0**	**0**	**18**	**1**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**2**	**41**	169
5:45 PM	**0**	**1**	**22**	**0**	**0**	**0**	**24**	**4**	**0**	**3**	**0**	**0**	**0**	**3**	**0**	**1**	**58**	**182**
Count Total	0	6	145	1	0	0	133	21	0	16	1	0	0	13	0	9	345	0
Peak Hour	**0**	**2**	**74**	**0**	**0**	**0**	**71**	**14**	**0**	**7**	**1**	**0**	**0**	**9**	**0**	**4**	**182**	**0**

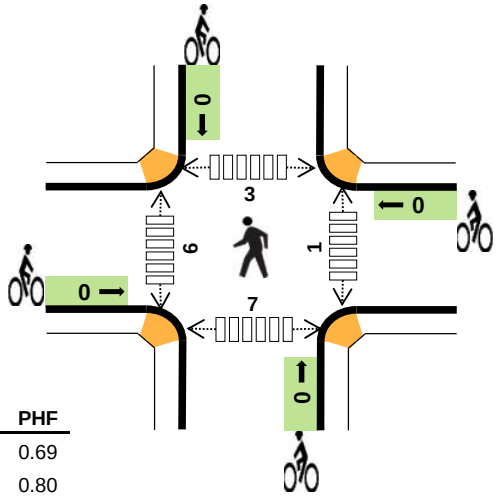
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	2	*2*
4:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	1	*1*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**6**	**0**	*6*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**9**	**0**	*9*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	1	0	1	*3*	0	0	0	0	*0*	0	0	15	3	*18*
Peak Hour	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**15**	**0**	***15***

111TH AVE NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	2.4%	0.69
WB	0.0%	0.80
NB	0.0%	0.75
SB	0.0%	0.63
TOTAL	1.2%	0.79

Two-Hour Count Summaries

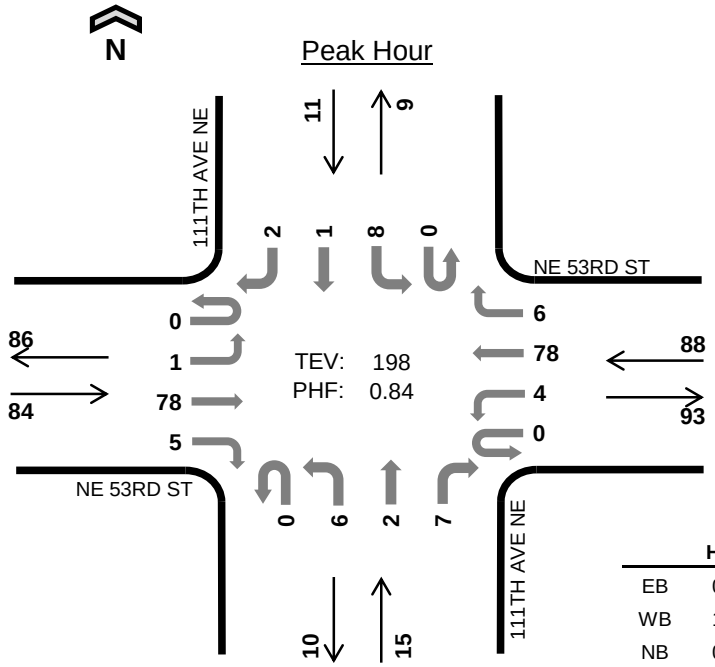
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	8	1	0	3	9	0	0	0	0	0	0	0	0	0	22	0
7:15 AM	0	0	6	1	0	2	13	0	0	0	0	1	0	0	0	0	23	0
7:30 AM	**0**	**0**	**13**	**1**	**0**	**2**	**21**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**41**	0
7:45 AM	**0**	**1**	**23**	**7**	**0**	**3**	**16**	**1**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**54**	140
8:00 AM	**0**	**0**	**24**	**6**	**0**	**4**	**13**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**50**	168
8:15 AM	**0**	**0**	**10**	**0**	**0**	**2**	**10**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**170**
8:30 AM	0	0	13	0	0	2	21	0	0	2	0	1	0	0	0	0	39	168
8:45 AM	0	0	24	0	0	0	11	2	0	1	0	0	0	0	0	0	38	152
Count Total	0	2	121	16	0	18	114	5	0	9	0	2	0	5	0	0	292	0
Peak Hour	**0**	**1**	**70**	**14**	**0**	**11**	**60**	**3**	**0**	**6**	**0**	**0**	**0**	**5**	**0**	**0**	**170**	**0**

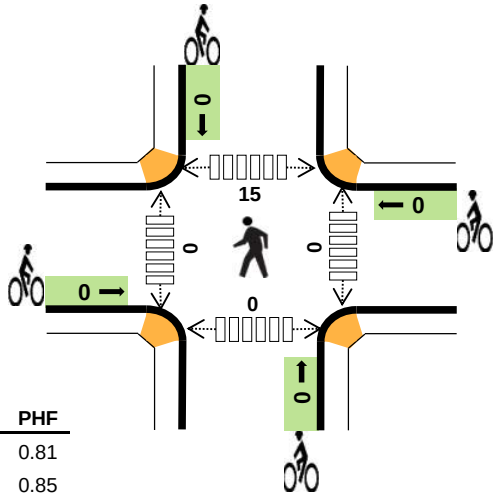
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	2	0	0	0	*2*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	1	*2*
7:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**1**	**4**	*7*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	*2*
8:00 AM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**1**	*2*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**2**	**0**	***6***
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
8:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	1	*2*
Count Total	2	0	0	0	*2*	0	0	0	0	*0*	3	8	4	9	*24*
Peak Hour	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**6**	**3**	**7**	***17***

111TH AVE NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.81
WB	1.1%	0.85
NB	0.0%	0.31
SB	0.0%	0.92
TOTAL	0.5%	0.84

Two-Hour Count Summaries

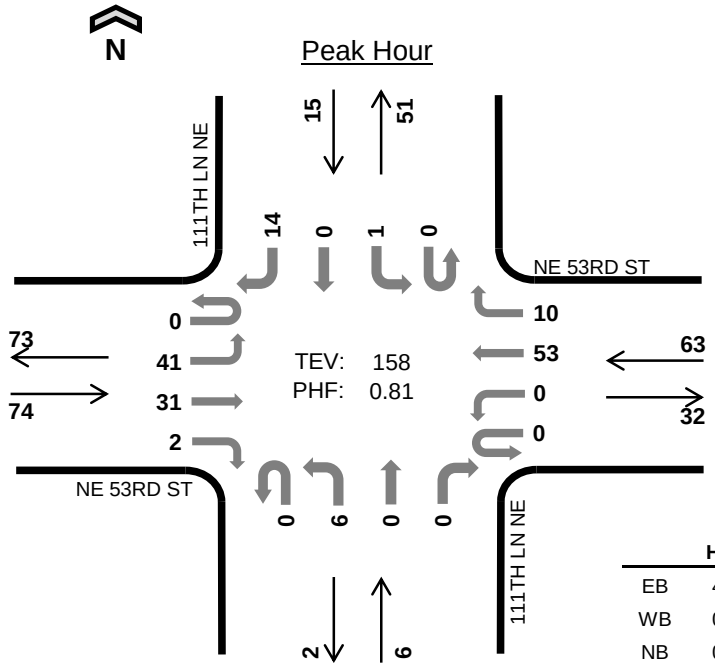
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	15	0	0	0	18	1	0	2	0	0	0	3	0	0	40	0
4:15 PM	0	1	11	0	0	2	10	1	0	0	0	1	0	1	0	0	27	0
4:30 PM	0	1	17	1	0	2	22	1	0	0	0	1	0	2	0	0	47	0
4:45 PM	0	0	20	3	0	0	16	1	0	0	0	2	0	1	1	1	45	159
5:00 PM	**0**	**1**	**24**	**1**	**0**	**2**	**23**	**1**	**0**	**0**	**0**	**2**	**0**	**2**	**1**	**0**	**57**	176
5:15 PM	**0**	**0**	**16**	**1**	**0**	**1**	**17**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**39**	188
5:30 PM	**0**	**0**	**17**	**2**	**0**	**1**	**18**	**2**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**43**	184
5:45 PM	**0**	**0**	**21**	**1**	**0**	**0**	**20**	**2**	**0**	**5**	**2**	**5**	**0**	**1**	**0**	**2**	**59**	**198**
Count Total	0	4	141	9	0	8	144	10	0	8	2	11	0	15	2	3	357	0
Peak Hour	**0**	**1**	**78**	**5**	**0**	**4**	**78**	**6**	**0**	**6**	**2**	**7**	**0**	**8**	**1**	**2**	**198**	**0**

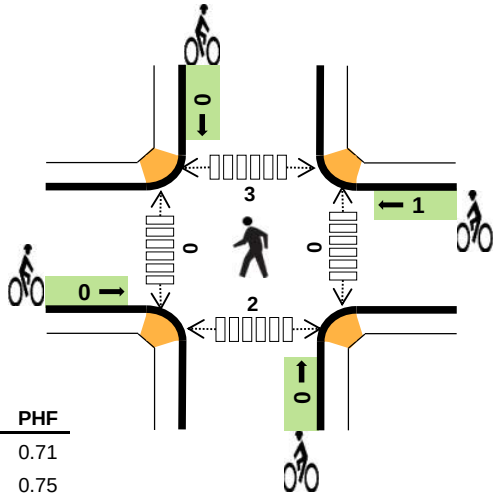
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	2	*3*
4:30 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	1	0	1	*2*
4:45 PM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**6**	**0**	*6*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**9**	**0**	*9*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	1	1	0	*3*	0	0	0	0	*0*	0	1	16	3	*20*
Peak Hour	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**15**	**0**	***15***

111TH LN NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	4.1%	0.71
WB	0.0%	0.75
NB	0.0%	0.50
SB	0.0%	0.63
TOTAL	1.9%	0.81

Two-Hour Count Summaries

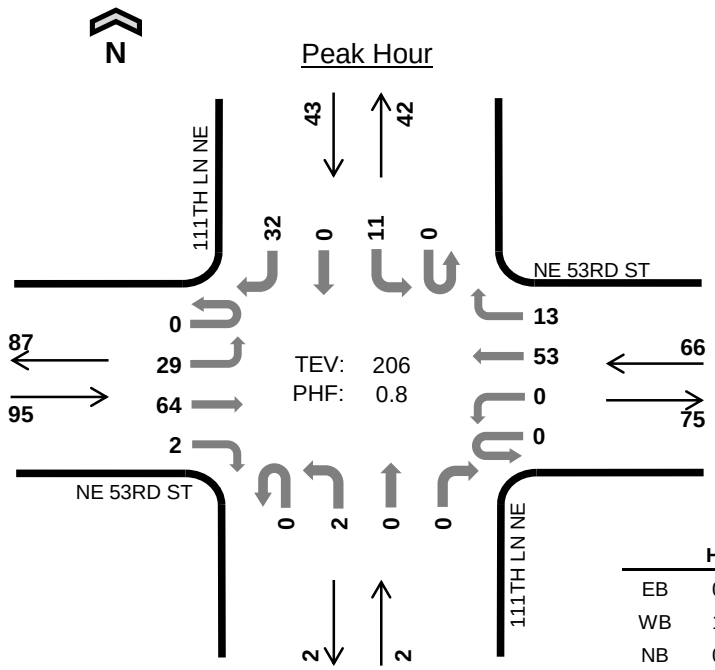
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	7	1	0	0	0	11	2	0	2	0	0	0	0	0	1	24	0
7:15 AM	0	3	4	1	0	0	15	0	0	0	0	0	0	0	0	1	24	0
7:30 AM	0	5	9	0	0	0	14	0	0	2	0	0	0	0	0	4	34	0
7:45 AM	**0**	**16**	**9**	**1**	**0**	**0**	**14**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**6**	**49**	131
8:00 AM	**0**	**13**	**10**	**0**	**0**	**0**	**14**	**2**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**41**	148
8:15 AM	**0**	**6**	**4**	**0**	**0**	**0**	**8**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**26**	150
8:30 AM	**0**	**6**	**8**	**1**	**0**	**0**	**17**	**4**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**4**	**42**	**158**
8:45 AM	0	13	12	0	0	0	13	6	0	0	0	0	0	1	0	1	46	155
Count Total	0	69	57	3	0	0	106	18	0	10	0	0	0	2	0	21	286	0
Peak Hour	**0**	**41**	**31**	**2**	**0**	**0**	**53**	**10**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**14**	**158**	**0**

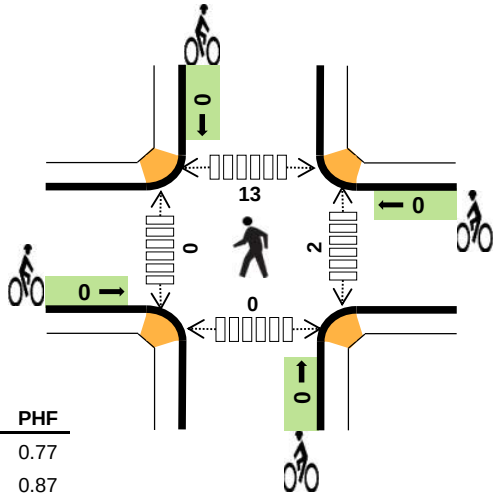
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	1	1	*4*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	2	*2*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
8:00 AM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**3**	**0**	*3*
8:30 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	0	0	0	*0*	0	0	0	1	*1*	0	0	0	1	*1*
Count Total	3	0	0	0	*3*	0	1	0	1	*2*	2	0	6	6	*14*
Peak Hour	**3**	**0**	**0**	**0**	***3***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**3**	**2**	***5***

111TH LN NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.77
WB	1.5%	0.87
NB	0.0%	0.25
SB	0.0%	0.90
TOTAL	0.5%	0.80

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE 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	2	15	2	0	0	14	2	0	0	0	0	0	2	0	2	39	0
4:15 PM	0	3	8	1	0	0	6	2	0	1	0	0	0	3	0	8	32	0
4:30 PM	0	7	14	1	0	0	9	4	0	1	0	0	0	2	0	14	52	0
4:45 PM	0	12	11	0	0	0	5	0	0	1	0	0	0	2	0	12	43	166
5:00 PM	**0**	**6**	**20**	**1**	**0**	**0**	**16**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**9**	**58**	185
5:15 PM	**0**	**2**	**15**	**1**	**0**	**0**	**10**	**1**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**8**	**40**	193
5:30 PM	**0**	**7**	**12**	**0**	**0**	**0**	**13**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**7**	**44**	185
5:45 PM	**0**	**14**	**17**	**0**	**0**	**0**	**14**	**5**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**8**	**64**	**206**
Count Total	0	53	112	6	0	0	87	21	0	5	0	0	0	20	0	68	372	0
Peak Hour	**0**	**29**	**64**	**2**	**0**	**0**	**53**	**13**	**0**	**2**	**0**	**0**	**0**	**11**	**0**	**32**	**206**	**0**

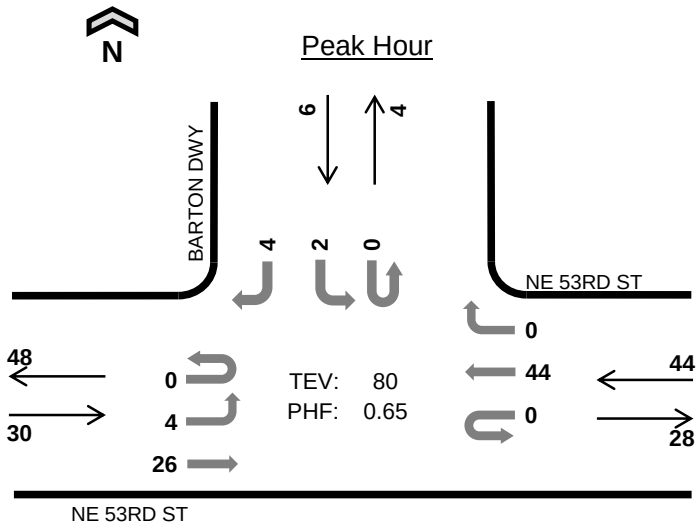
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

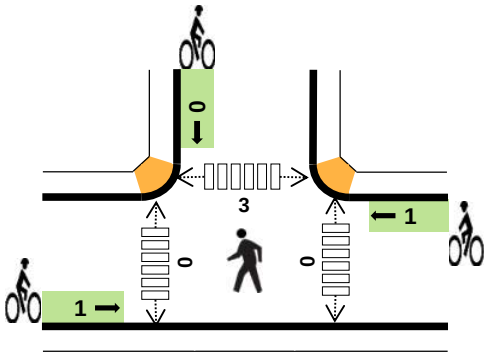
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	1	*2*
4:45 PM	1	0	0	0	*1*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

BARTON DWY
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.58
WB	0.0%	0.79
NB	-	-
SB	0.0%	0.38
TOTAL	0.0%	0.65

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DWY 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	1	0	0	0	8	0	0	0	0	0	0	0	0	0	9	0
7:15 AM	0	0	1	0	0	0	8	1	0	0	0	0	0	0	0	1	11	0
7:30 AM	0	1	4	0	0	0	10	1	0	0	0	0	0	0	0	0	16	0
7:45 AM	0	2	3	0	0	0	12	0	0	0	0	0	0	0	0	1	18	54
8:00 AM	**0**	**1**	**7**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**18**	63
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**11**	63
8:30 AM	**0**	**2**	**6**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	67
8:45 AM	**0**	**1**	**12**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**31**	**80**
Count Total	0	7	35	0	0	0	82	2	0	0	0	0	0	2	0	6	134	0
Peak Hour	**0**	**4**	**26**	**0**	**0**	**0**	**44**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**80**	**0**

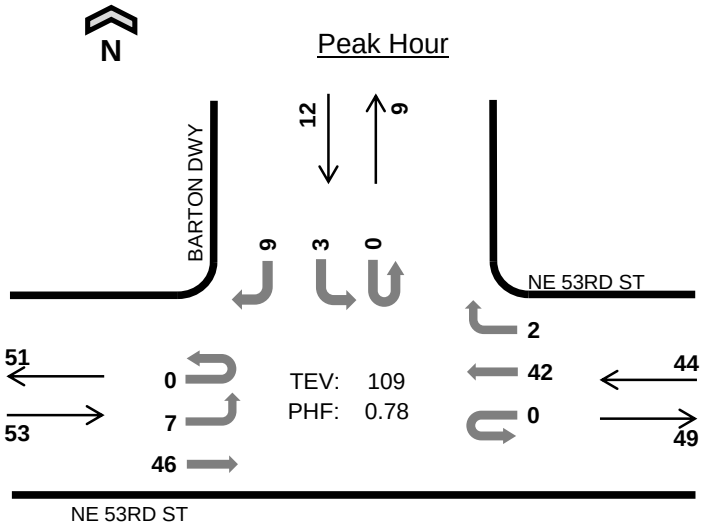
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

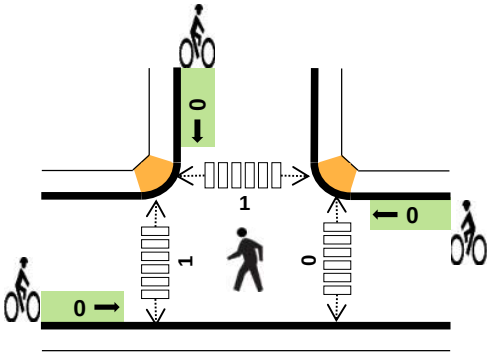
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	2	0	*3*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
7:45 AM	0	0	0	0	*0*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

BARTON DWY
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM

Peak Hour





	HV %:	PHF
EB	0.0%	0.78
WB	0.0%	0.73
NB	-	-
SB	0.0%	0.43
TOTAL	0.0%	0.78

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DWY 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	1	12	0	0	0	8	2	0	0	0	0	0	0	0	4	27	0
4:15 PM	0	0	8	0	0	0	5	0	0	0	0	0	0	0	0	1	14	0
4:30 PM	0	1	13	0	0	0	10	0	0	0	0	0	0	0	0	2	26	0
4:45 PM	0	0	10	0	0	0	3	0	0	0	0	0	0	1	0	0	14	81
5:00 PM	**0**	**2**	**12**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**5**	**31**	85
5:15 PM	**0**	**1**	**14**	**0**	**0**	**0**	**7**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**24**	95
5:30 PM	**0**	**1**	**6**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**19**	88
5:45 PM	**0**	**3**	**14**	**0**	**0**	**0**	**14**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**35**	**109**
Count Total	0	9	89	0	0	0	68	4	0	0	0	0	0	4	0	16	190	0
Peak Hour	**0**	**7**	**46**	**0**	**0**	**0**	**42**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**9**	**109**	**0**

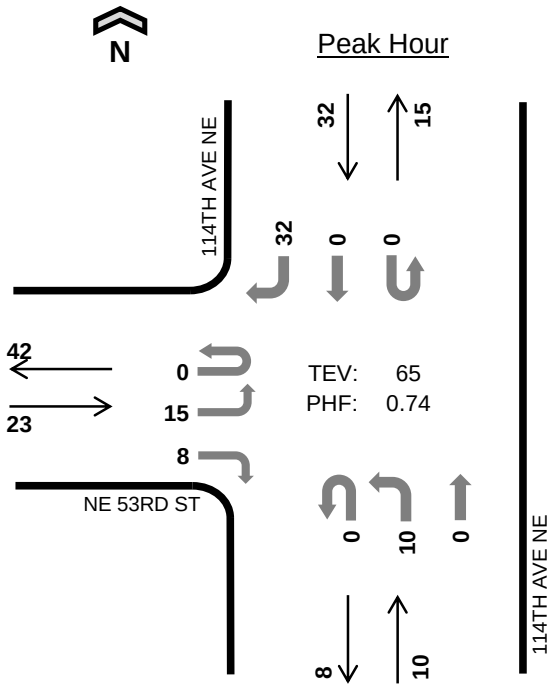
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

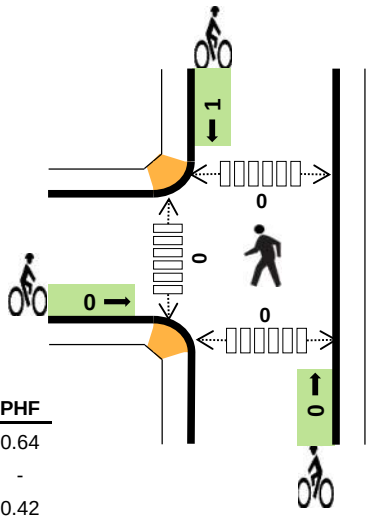
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
Count Total	1	1	0	0	*2*	0	0	0	0	*0*	0	1	1	0	*2*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**1**	**0**	***2***

114TH AVE NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.64
WB	-	-
NB	0.0%	0.42
SB	3.1%	0.62
TOTAL	1.5%	0.74

Two-Hour Count Summaries

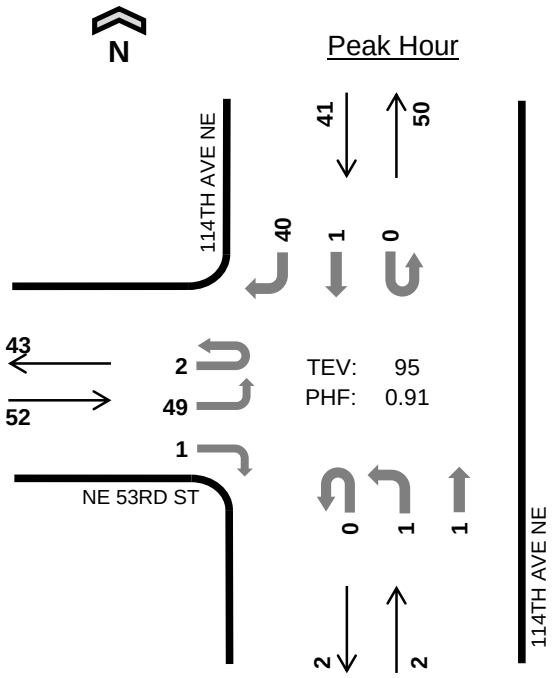
Interval Start	NE 53RD ST				0				114TH AVE NE				114TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	4	9	0
7:15 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	8	10	0
7:30 AM	0	2	0	1	0	0	0	0	0	4	0	0	0	0	0	5	12	0
7:45 AM	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	10	15	46
8:00 AM	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**7**	**15**	52
8:15 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**10**	52
8:30 AM	**0**	**4**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**6**	**18**	58
8:45 AM	**0**	**6**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**22**	**65**
Count Total	0	21	0	10	0	0	0	0	0	21	0	0	0	0	0	59	111	0
Peak Hour	**0**	**15**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**32**	**65**	**0**

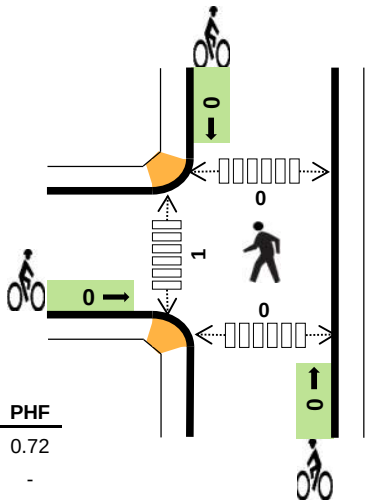
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	0	0	1	*1*	0	0	0	1	*1*	0	0	1	0	*1*
Peak Hr	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***

114TH AVE NE
NE 53RD ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	0.0%	0.72
WB	-	-
NB	0.0%	0.50
SB	2.4%	0.79
TOTAL	1.1%	0.91

Two-Hour Count Summaries

Interval Start	NE 53RD ST				0				114TH AVE NE				114TH AVE NE				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	1	0	0	0	0	0	3	0	0	0	0	0	7	20	0
4:15 PM	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	5	14	0
4:30 PM	0	9	0	3	0	0	0	0	0	1	0	0	0	0	0	8	21	0
4:45 PM	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	3	12	67
5:00 PM	**0**	**17**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**26**	73
5:15 PM	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**8**	**23**	82
5:30 PM	**1**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**11**	**20**	81
5:45 PM	**1**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**26**	**95**
Count Total	2	83	0	7	0	0	0	0	0	5	1	0	0	0	1	63	162	0
Peak Hour	**2**	**49**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**1**	**40**	**95**	**0**

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

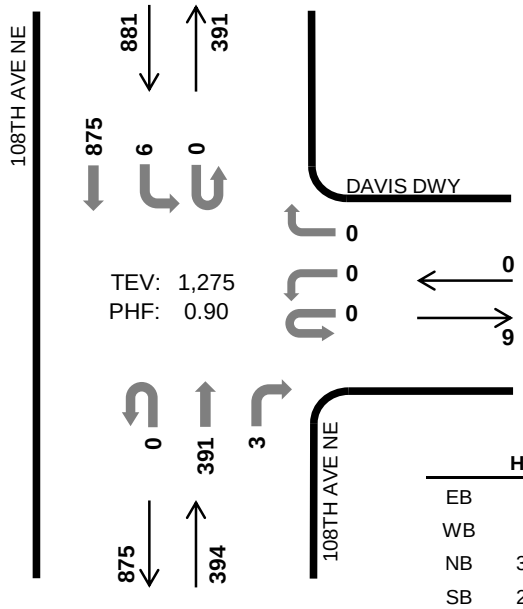
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	1	0	0	1	*2*	0	0	0	0	*0*	0	2	0	0	*2*
Peak Hr	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***

108TH AVE NE
DAVIS DWY

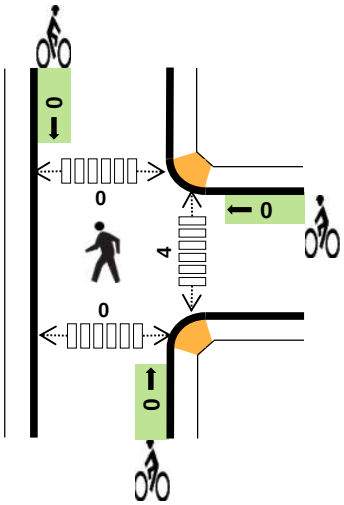
Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	-	-
NB	3.8%	0.85
SB	2.2%	0.90
TOTAL	2.7%	0.90



Two-Hour Count Summaries

Interval Start	0				DAVIS DWY				108TH AVE NE				108TH AVE NE				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	0	0	0	0	0	54	2	0	2	130	0	188	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	64	0	0	1	189	0	254	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	73	0	0	1	207	0	281	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**101**	**1**	**0**	**2**	**238**	**0**	**342**	1,065
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**110**	**1**	**0**	**3**	**242**	**0**	**356**	1,233
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**65**	**0**	**0**	**1**	**184**	**0**	**250**	1,229
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**115**	**1**	**0**	**0**	**211**	**0**	**327**	**1,275**
8:45 AM	0	0	0	0	0	0	0	0	0	0	111	1	0	1	183	0	296	1,229
Count Total	0	0	0	0	0	0	0	0	0	0	693	6	0	11	1,584	0	2,294	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**391**	**3**	**0**	**6**	**875**	**0**	**1,275**	**0**

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

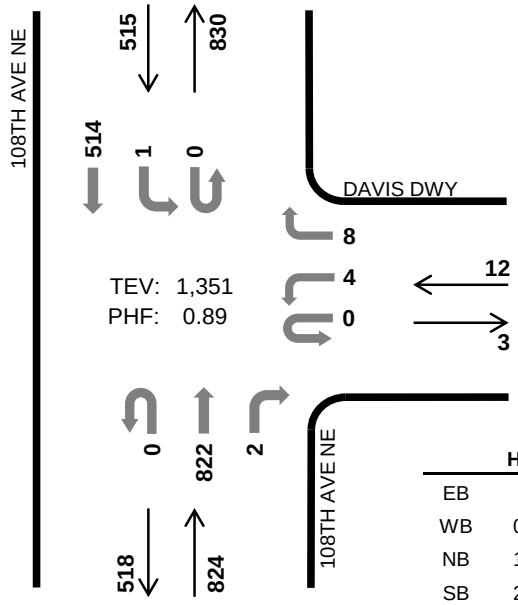
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	4	*7*	0	0	0	2	*2*	3	0	1	0	*4*
7:15 AM	0	0	1	7	*8*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	0	4	5	*9*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**3**	**6**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**4**	**4**	***8***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:15 AM	**0**	**0**	**3**	**5**	***8***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:30 AM	**0**	**0**	**5**	**4**	***9***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***
8:45 AM	0	0	4	4	*8*	0	0	0	0	*0*	2	0	1	0	*3*
Count Total	0	0	27	39	*66*	0	0	0	2	*2*	10	0	2	0	*12*
Peak Hr	**0**	**0**	**15**	**19**	***34***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	***4***

108TH AVE NE
DAVIS DWY

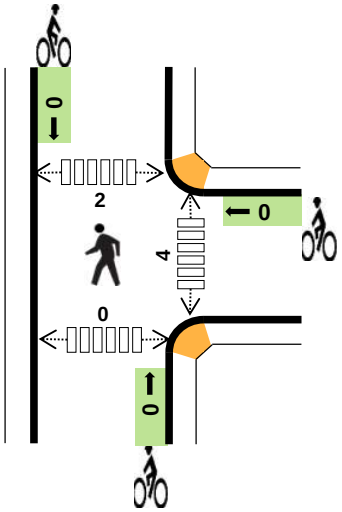
Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.50
NB	1.1%	0.82
SB	2.1%	0.98
TOTAL	1.5%	0.89



Two-Hour Count Summaries

Interval Start	0				DAVIS DWY				108TH AVE NE				108TH AVE NE				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	2	0	2	0	0	174	2	0	0	97	0	277	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	182	1	0	1	108	0	293	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	187	0	0	1	120	0	310	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**2**	**0**	**0**	**179**	**0**	**0**	**0**	**128**	**0**	**313**	1,193
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**250**	**0**	**0**	**0**	**126**	**0**	**378**	1,294
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**195**	**2**	**0**	**0**	**130**	**0**	**328**	1,329
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**198**	**0**	**0**	**1**	**130**	**0**	**332**	**1,351**
5:45 PM	0	0	0	0	0	1	0	1	0	0	179	1	0	1	99	0	282	1,320
Count Total	0	0	0	0	0	8	0	13	0	0	1,544	6	0	4	938	0	2,513	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**8**	**0**	**0**	**822**	**2**	**0**	**1**	**514**	**0**	**1,351**	**0**

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

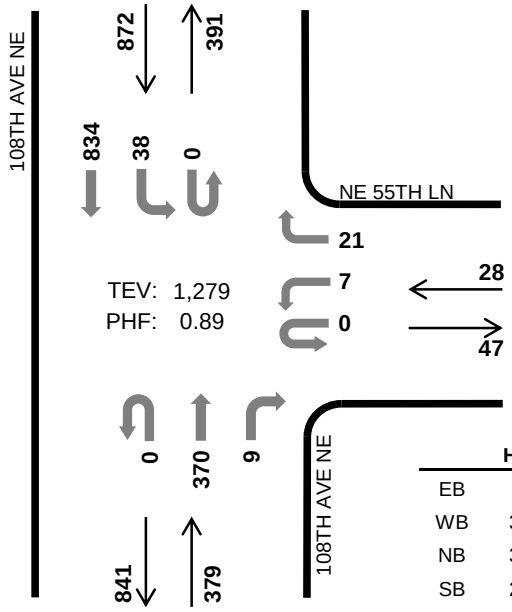
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	2	*5*	0	0	0	0	*0*	3	0	0	0	*3*
4:15 PM	0	0	8	3	*11*	0	0	0	1	*1*	3	0	0	0	*3*
4:30 PM	0	0	4	3	*7*	0	0	0	0	*0*	1	0	0	0	*1*
4:45 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**1**	**0**	*3*
5:00 PM	**0**	**0**	**3**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
5:15 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**3**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**1**	**0**	***2***
5:45 PM	0	0	4	1	*5*	0	0	0	0	*0*	1	0	1	0	*2*
Count Total	0	0	28	20	*48*	0	0	0	1	*1*	12	0	3	0	*15*
Peak Hr	**0**	**0**	**9**	**11**	***20***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**2**	**0**	***6***

108TH AVE NE
NE 55TH LN

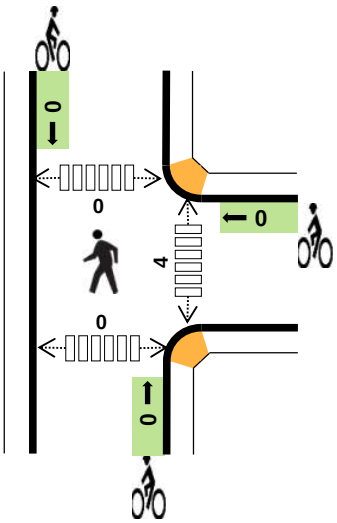
Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	3.6%	0.58
NB	3.4%	0.85
SB	2.1%	0.89
TOTAL	2.5%	0.89



Two-Hour Count Summaries

Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				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	1	0	6	0	0	49	0	0	3	126	0	185	0
7:15 AM	0	0	0	0	0	0	0	3	0	0	59	1	0	5	181	0	249	0
7:30 AM	0	0	0	0	0	1	0	6	0	0	67	5	0	11	196	0	286	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**11**	**0**	**0**	**89**	**5**	**0**	**14**	**221**	**0**	**341**	1,061
8:00 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**4**	**0**	**0**	**107**	**2**	**0**	**9**	**235**	**0**	**359**	1,235
8:15 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**0**	**64**	**1**	**0**	**8**	**176**	**0**	**254**	1,240
8:30 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**0**	**110**	**1**	**0**	**7**	**202**	**0**	**325**	**1,279**
8:45 AM	0	0	0	0	0	0	0	5	0	0	104	3	0	16	163	0	291	1,229
Count Total	0	0	0	0	0	9	0	41	0	0	649	18	0	73	1,500	0	2,290	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**21**	**0**	**0**	**370**	**9**	**0**	**38**	**834**	**0**	**1,279**	**0**

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

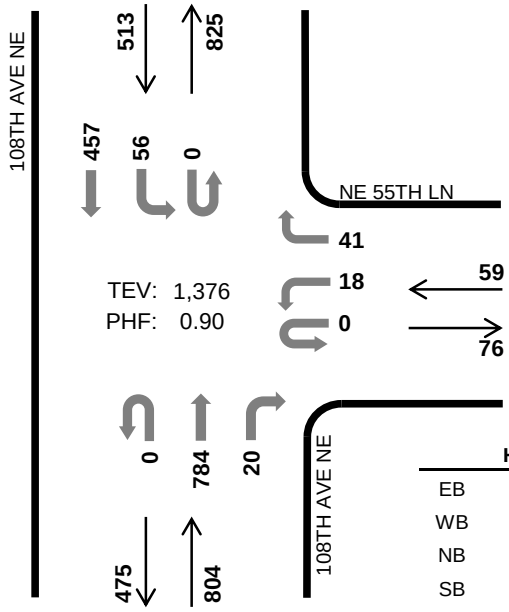
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	3	4	*7*	0	0	0	1	*1*	4	0	0	0	*4*
7:15 AM	0	0	1	8	*9*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	0	4	5	*9*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**3**	**5**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:15 AM	**0**	**1**	**2**	**5**	***8***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:30 AM	**0**	**0**	**5**	**4**	***9***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***
8:45 AM	0	0	4	4	*8*	0	0	0	0	*0*	3	0	0	0	*3*
Count Total	0	1	25	39	*65*	0	0	0	1	*1*	12	0	0	0	*12*
Peak Hr	**0**	**1**	**13**	**18**	***32***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	***4***

108TH AVE NE
NE 55TH LN

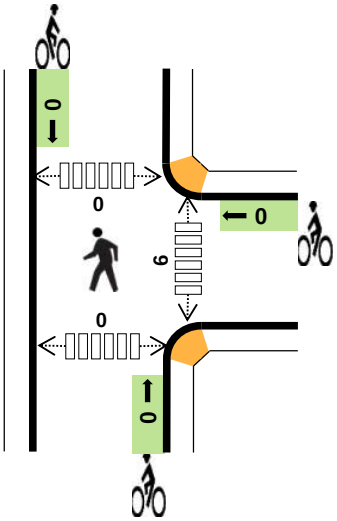
Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.74
NB	1.2%	0.82
SB	2.3%	0.98
TOTAL	1.6%	0.90



Two-Hour Count Summaries

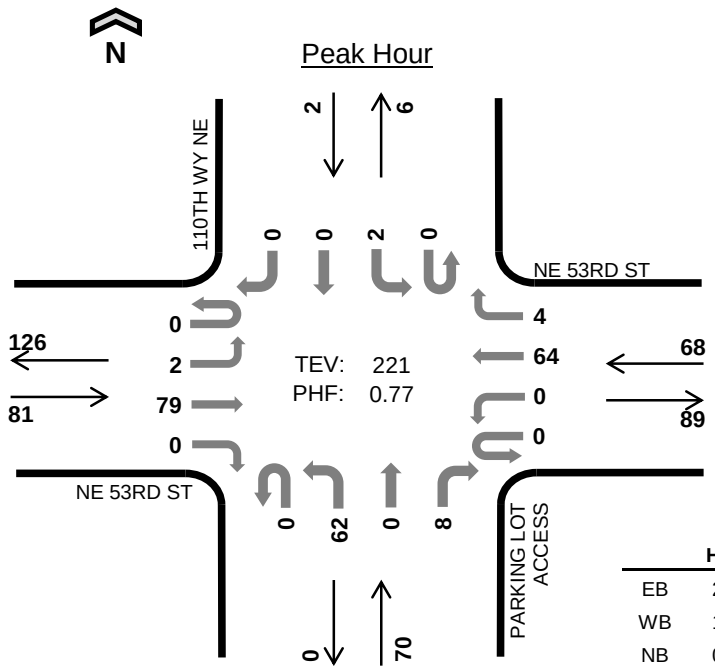
Interval Start	0				NE 55TH LN				108TH AVE NE				108TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	6	0	13	0	0	165	3	0	11	87	0	285	0
4:15 PM	0	0	0	0	0	4	0	16	0	0	178	3	0	5	104	0	310	0
4:30 PM	0	0	0	0	0	8	0	12	0	0	185	3	0	13	106	0	327	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**7**	**0**	**0**	**176**	**3**	**0**	**13**	**117**	**0**	**319**	1,241
5:00 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**11**	**0**	**0**	**240**	**4**	**0**	**8**	**117**	**0**	**384**	1,340
5:15 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**13**	**0**	**0**	**180**	**9**	**0**	**21**	**110**	**0**	**334**	1,364
5:30 PM	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**10**	**0**	**0**	**188**	**4**	**0**	**14**	**113**	**0**	**339**	**1,376**
5:45 PM	0	0	0	0	0	3	0	9	0	0	170	11	0	10	93	0	296	1,353
Count Total	0	0	0	0	0	39	0	91	0	0	1,482	40	0	95	847	0	2,594	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**41**	**0**	**0**	**784**	**20**	**0**	**56**	**457**	**0**	**1,376**	**0**

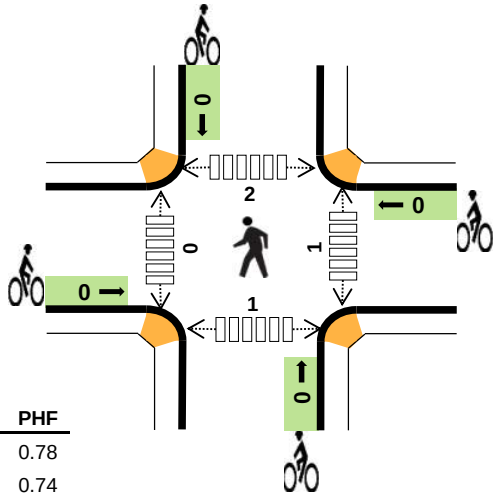
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	*0*	1	0	0	0	*1*
4:15 PM	0	0	7	3	*10*	0	0	1	1	*2*	0	0	0	0	*0*
4:30 PM	0	0	4	3	*7*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**0**	*4*
5:00 PM	**0**	**0**	**3**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
5:15 PM	**0**	**0**	**2**	**3**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:30 PM	**0**	**0**	**3**	**3**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	0	0	4	1	*5*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	0	0	27	21	*48*	0	0	1	1	*2*	8	0	0	0	*8*
Peak Hr	**0**	**0**	**10**	**12**	***22***	**0**	**0**	**0**	**0**	***0***	**6**	**0**	**0**	**0**	***6***

110TH WY NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	2.5%	0.78
WB	1.5%	0.74
NB	0.0%	0.49
SB	0.0%	0.25
TOTAL	1.4%	0.77

Two-Hour Count Summaries

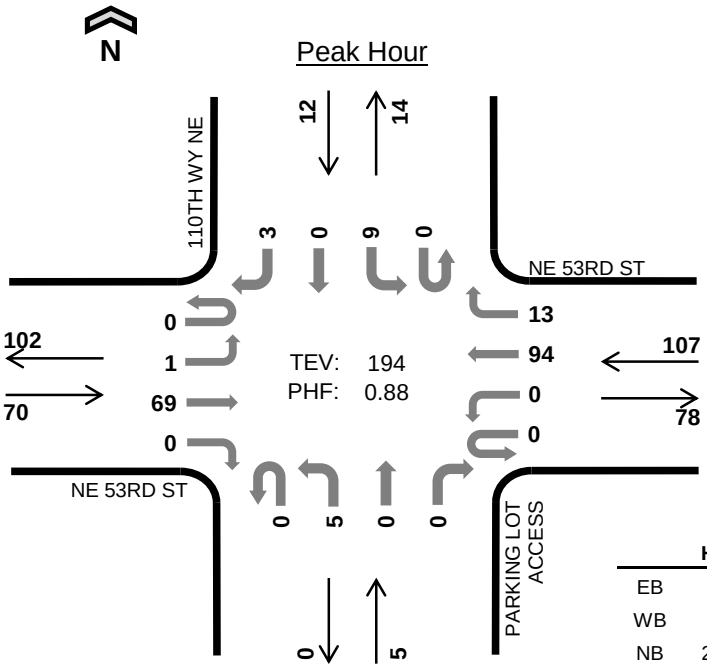
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				PARKING LOT ACCESS Northbound				110TH WY NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	7	0	0	0	12	0	0	0	0	0	0	0	0	0	19	0
7:15 AM	0	1	15	0	0	0	15	0	0	4	0	0	0	0	0	0	35	0
7:30 AM	0	0	14	0	0	0	13	1	0	8	0	1	0	0	0	0	37	0
7:45 AM	**0**	**0**	**26**	**0**	**0**	**0**	**15**	**2**	**0**	**23**	**0**	**4**	**0**	**0**	**0**	**0**	**70**	161
8:00 AM	**0**	**0**	**17**	**0**	**0**	**0**	**18**	**1**	**0**	**32**	**0**	**4**	**0**	**0**	**0**	**0**	**72**	214
8:15 AM	**0**	**0**	**13**	**0**	**0**	**0**	**9**	**0**	**0**	**6**	**0**	**0**	**0**	**2**	**0**	**0**	**30**	209
8:30 AM	**0**	**2**	**23**	**0**	**0**	**0**	**22**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**49**	**221**
8:45 AM	0	0	36	0	0	0	18	1	0	0	0	0	0	1	0	0	56	207
Count Total	0	3	151	0	0	0	122	6	0	74	0	9	0	3	0	0	368	0
Peak Hour	**0**	**2**	**79**	**0**	**0**	**0**	**64**	**4**	**0**	**62**	**0**	**8**	**0**	**2**	**0**	**0**	**221**	**0**

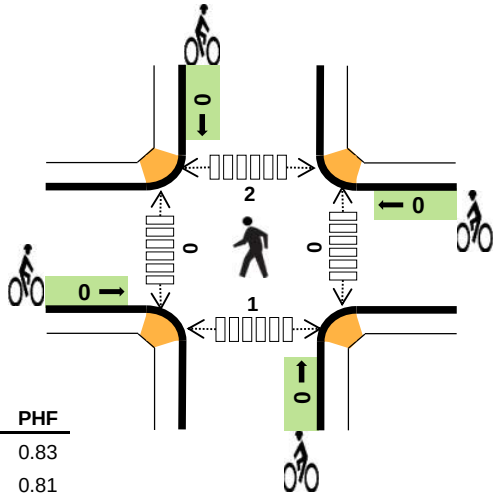
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	1	0	1	3	*5*
7:15 AM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	2	0	*2*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	1	5	*8*
7:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**1**	*2*
8:30 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:45 AM	0	0	0	0	*0*	0	1	0	0	*1*	0	0	0	0	*0*
Count Total	3	1	0	0	*4*	0	1	0	0	*1*	4	0	6	9	*19*
Peak Hour	**2**	**1**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**2**	**1**	***4***

110TH WY NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	0.0%	0.83
WB	0.9%	0.81
NB	20.0%	0.42
SB	0.0%	0.75
TOTAL	1.0%	0.88

Two-Hour Count Summaries

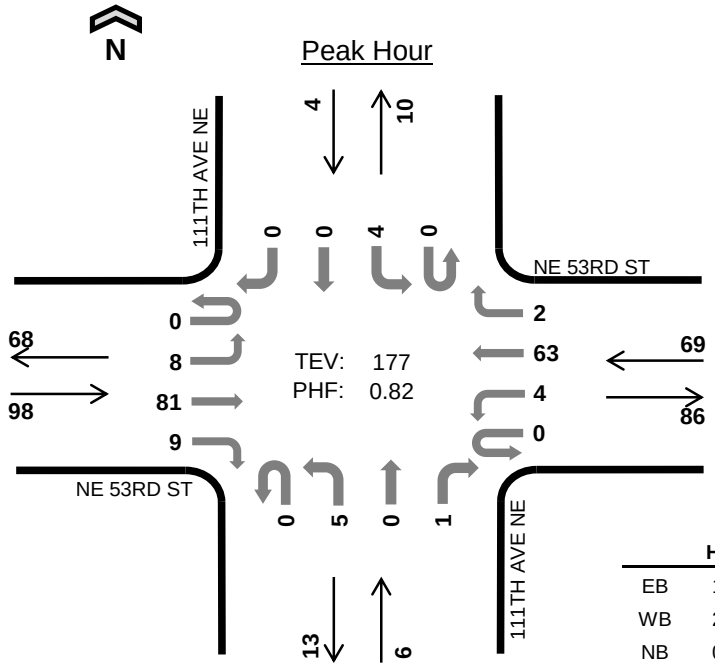
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				PARKING LOT ACCESS Northbound				110TH WY NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	17	1	0	0	26	2	0	3	0	0	0	0	0	0	49	0
4:15 PM	**0**	**1**	**15**	**0**	**0**	**0**	**26**	**2**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**1**	**49**	0
4:30 PM	**0**	**0**	**15**	**0**	**0**	**0**	**16**	**4**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**39**	0
4:45 PM	**0**	**0**	**21**	**0**	**0**	**0**	**22**	**4**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**51**	188
5:00 PM	**0**	**0**	**18**	**0**	**0**	**0**	**30**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**55**	**194**
5:15 PM	0	0	18	0	0	0	20	1	0	0	0	0	0	2	0	1	42	187
5:30 PM	0	1	15	0	0	0	15	1	0	1	0	0	0	1	0	1	35	183
5:45 PM	0	1	17	0	0	0	22	0	0	1	0	0	0	2	0	0	43	175
Count Total	0	3	136	1	0	0	177	17	0	10	0	0	0	14	0	5	363	0
Peak Hour	**0**	**1**	**69**	**0**	**0**	**0**	**94**	**13**	**0**	**5**	**0**	**0**	**0**	**9**	**0**	**3**	**194**	**0**

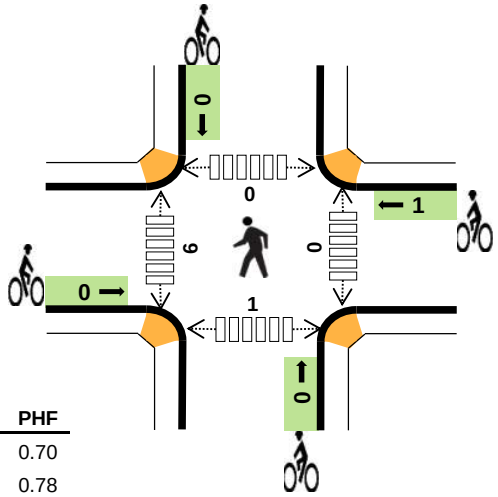
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	1	1	0	*2*	0	0	0	0	*0*	0	0	2	2	*4*
Peak Hour	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**1**	***3***

111TH AVE NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	1.0%	0.70
WB	2.9%	0.78
NB	0.0%	0.50
SB	0.0%	0.50
TOTAL	1.7%	0.82

Two-Hour Count Summaries

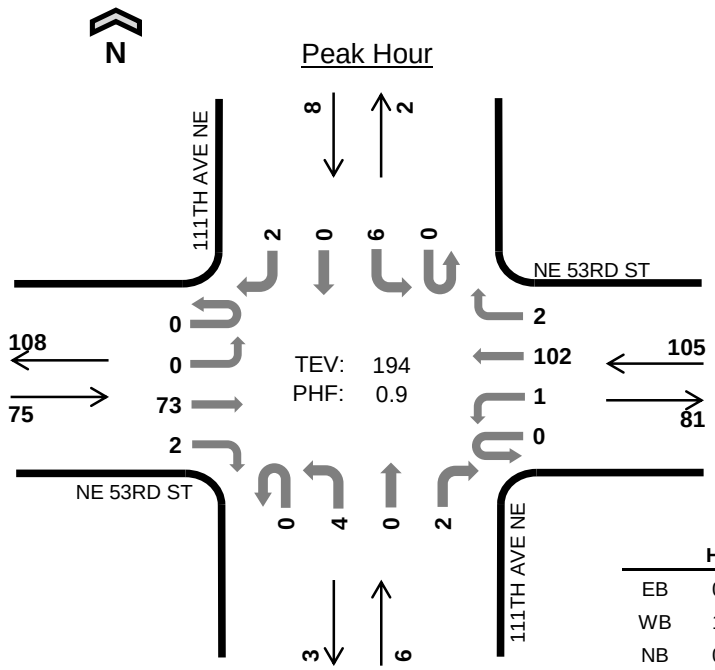
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	7	0	0	1	11	0	0	0	0	0	0	0	0	0	20	0
7:15 AM	0	1	10	1	0	2	14	0	0	0	0	0	0	0	0	0	28	0
7:30 AM	0	0	17	1	0	2	14	0	0	1	1	0	0	0	0	0	36	0
7:45 AM	0	0	23	4	0	4	18	1	0	0	0	1	0	0	0	0	51	135
8:00 AM	**0**	**0**	**17**	**6**	**0**	**4**	**17**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**48**	163
8:15 AM	**0**	**2**	**16**	**1**	**0**	**0**	**8**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**30**	165
8:30 AM	**0**	**0**	**19**	**2**	**0**	**0**	**21**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	174
8:45 AM	**0**	**6**	**29**	**0**	**0**	**0**	**17**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**177**
Count Total	0	10	138	15	0	13	120	3	0	6	1	2	0	4	0	0	312	0
Peak Hour	**0**	**8**	**81**	**9**	**0**	**4**	**63**	**2**	**0**	**5**	**0**	**1**	**0**	**4**	**0**	**0**	**177**	**0**

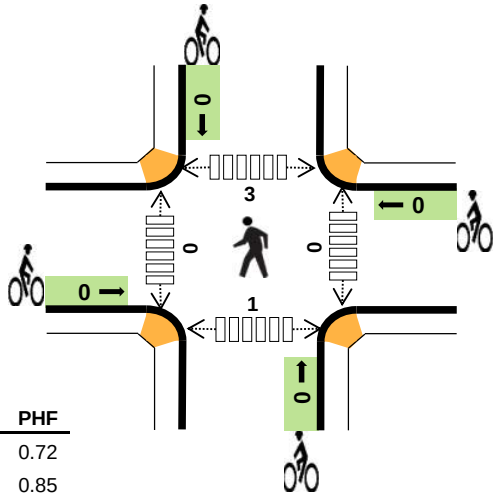
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	2	0	1	2	*5*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	1	3	*5*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
8:30 AM	**0**	**2**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	*2*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**4**	**0**	**0**	***4***
Count Total	1	2	0	0	*3*	0	1	0	0	*1*	2	7	4	6	*19*
Peak Hour	**1**	**2**	**0**	**0**	***3***	**0**	**1**	**0**	**0**	***1***	**0**	**6**	**0**	**1**	***7***

111TH AVE NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	0.0%	0.72
WB	1.0%	0.85
NB	0.0%	0.50
SB	0.0%	0.67
TOTAL	0.5%	0.90

Two-Hour Count Summaries

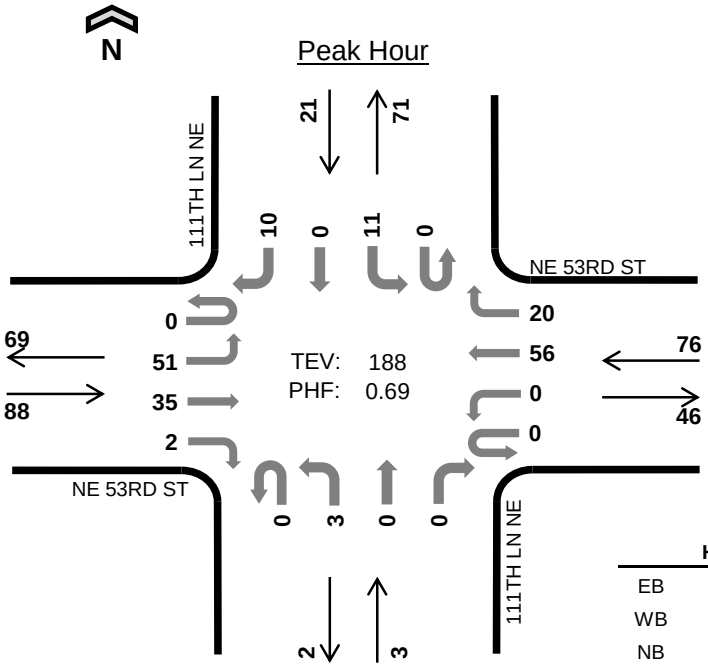
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH AVE NE Northbound				111TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	14	1	0	4	27	2	0	0	0	0	1	3	0	0	53	0
4:15 PM	**0**	**0**	**14**	**1**	**0**	**0**	**29**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**48**	0
4:30 PM	**0**	**0**	**16**	**0**	**0**	**1**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**38**	0
4:45 PM	**0**	**0**	**26**	**0**	**0**	**0**	**23**	**0**	**0**	**2**	**0**	**1**	**0**	**2**	**0**	**0**	**54**	193
5:00 PM	**0**	**0**	**17**	**1**	**0**	**0**	**31**	**0**	**0**	**2**	**0**	**0**	**0**	**3**	**0**	**0**	**54**	**194**
5:15 PM	0	0	19	2	0	0	15	0	0	3	0	0	0	2	0	0	41	187
5:30 PM	0	0	16	2	0	1	19	3	1	0	0	0	0	2	0	0	44	193
5:45 PM	0	0	17	1	0	0	19	2	0	0	0	0	0	1	0	1	41	180
Count Total	0	1	139	8	0	6	182	9	1	7	0	2	1	14	0	3	373	0
Peak Hour	**0**	**0**	**73**	**2**	**0**	**1**	**102**	**2**	**0**	**4**	**0**	**2**	**0**	**6**	**0**	**2**	**194**	**0**

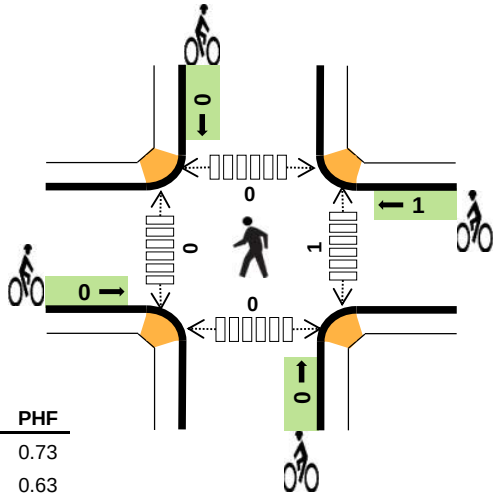
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
4:15 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**1**	***2***
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	1	0	*3*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
Count Total	0	1	0	0	*1*	0	0	1	0	*1*	2	1	4	1	*8*
Peak Hour	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**3**	**1**	***4***

111TH LN NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	2.3%	0.73
WB	0.0%	0.63
NB	0.0%	0.25
SB	9.5%	0.66
TOTAL	2.1%	0.69

Two-Hour Count Summaries

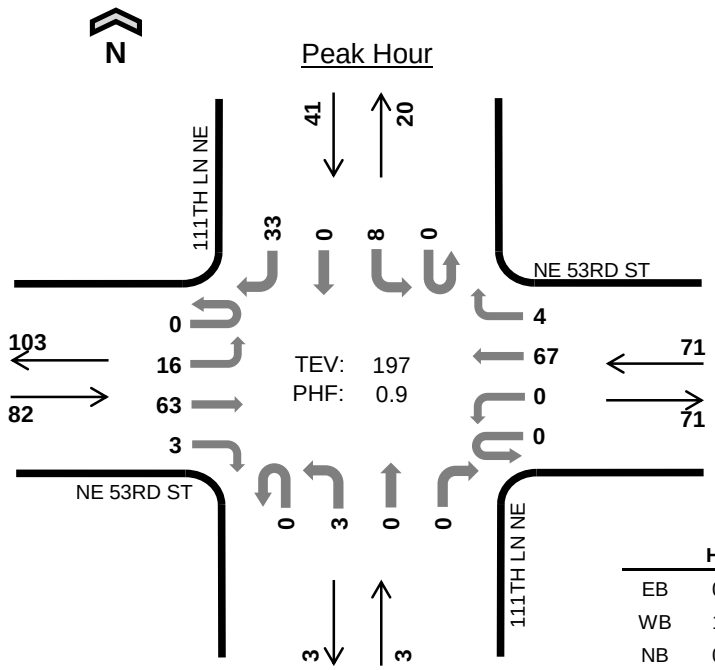
Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	3	4	0	0	0	11	0	0	2	0	0	0	1	0	1	22	0
7:15 AM	0	8	1	1	0	0	15	0	0	0	0	0	0	0	0	0	25	0
7:30 AM	0	7	9	2	0	0	14	0	0	2	0	0	0	0	0	0	34	0
7:45 AM	0	16	11	0	0	0	17	8	0	3	1	0	0	0	0	2	58	139
8:00 AM	**0**	**11**	**10**	**0**	**0**	**0**	**22**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**49**	166
8:15 AM	**0**	**7**	**9**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**25**	166
8:30 AM	**0**	**10**	**10**	**1**	**0**	**0**	**13**	**2**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**3**	**46**	178
8:45 AM	**0**	**23**	**6**	**1**	**0**	**0**	**15**	**15**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**3**	**68**	**188**
Count Total	0	85	60	5	0	0	113	28	0	10	1	0	0	12	0	13	327	0
Peak Hour	**0**	**51**	**35**	**2**	**0**	**0**	**56**	**20**	**0**	**3**	**0**	**0**	**0**	**11**	**0**	**10**	**188**	**0**

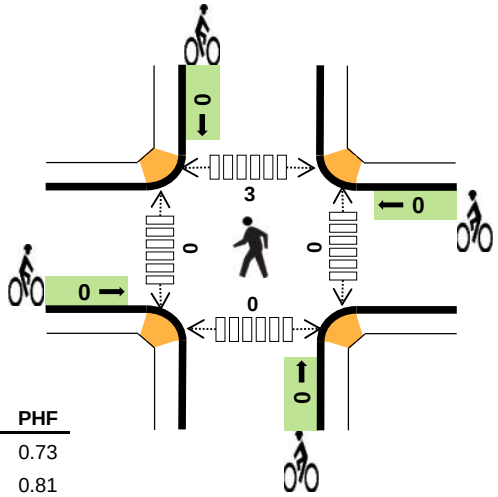
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	1	0	2	2	*5*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	3	0	1	0	*4*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	5	*6*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	0	*1*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**1**	**0**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***
Count Total	2	0	0	2	*4*	0	1	0	0	*1*	7	0	3	7	*17*
Peak Hour	**2**	**0**	**0**	**2**	***4***	**0**	**1**	**0**	**0**	***1***	**1**	**0**	**0**	**0**	***1***

111TH LN NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	0.0%	0.73
WB	1.4%	0.81
NB	0.0%	0.75
SB	0.0%	0.79
TOTAL	0.5%	0.90

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				111TH LN NE Northbound				111TH LN NE 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	3	12	1	0	0	24	0	0	0	0	0	0	1	0	10	51	0
4:15 PM	**0**	**2**	**15**	**0**	**0**	**0**	**20**	**2**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**10**	**52**	0
4:30 PM	**0**	**1**	**12**	**2**	**0**	**0**	**13**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**6**	**37**	0
4:45 PM	**0**	**2**	**25**	**1**	**0**	**0**	**14**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**8**	**53**	193
5:00 PM	**0**	**11**	**11**	**0**	**0**	**0**	**20**	**2**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**9**	**55**	**197**
5:15 PM	0	8	13	0	0	0	7	1	0	0	0	0	0	1	0	10	40	185
5:30 PM	0	6	10	1	0	0	16	0	0	0	0	0	0	0	0	6	39	187
5:45 PM	0	4	14	1	0	0	14	2	0	0	0	0	0	0	0	9	44	178
Count Total	0	37	112	6	0	0	128	7	0	3	0	0	0	10	0	68	371	0
Peak Hour	**0**	**16**	**63**	**3**	**0**	**0**	**67**	**4**	**0**	**3**	**0**	**0**	**0**	**8**	**0**	**33**	**197**	**0**

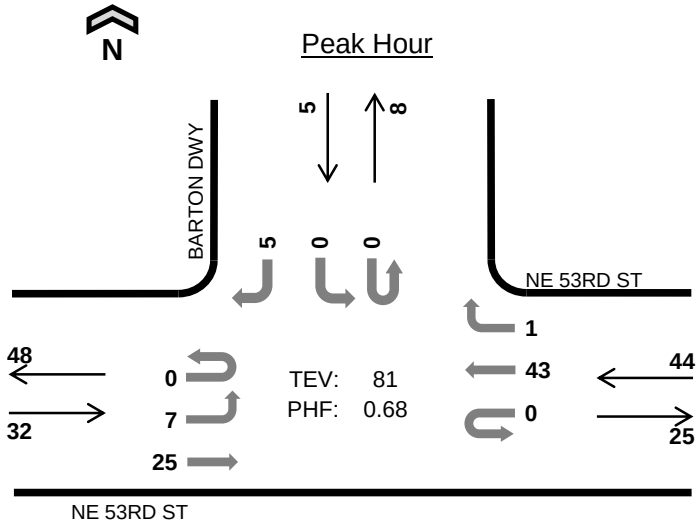
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

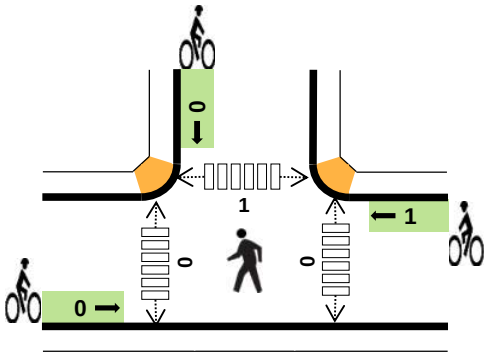
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	3	0	*4*
4:15 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM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

BARTON DWY
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.89
WB	0.0%	0.52
NB	-	-
SB	0.0%	0.42
TOTAL	0.0%	0.68

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DWY 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	2	0	0	0	4	0	0	0	0	0	0	0	0	1	8	0
7:15 AM	0	0	1	0	0	0	11	0	0	0	0	0	0	0	0	1	13	0
7:30 AM	0	2	2	0	0	0	8	1	0	0	0	0	0	0	0	0	13	0
7:45 AM	0	1	5	0	0	0	16	1	0	0	0	0	0	0	0	4	27	61
8:00 AM	**0**	**3**	**5**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**21**	74
8:15 AM	**0**	**1**	**6**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**14**	75
8:30 AM	**0**	**1**	**8**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**16**	78
8:45 AM	**0**	**2**	**6**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**30**	**81**
Count Total	0	11	35	0	0	0	82	3	0	0	0	0	0	0	0	11	142	0
Peak Hour	**0**	**7**	**25**	**0**	**0**	**0**	**43**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**81**	**0**

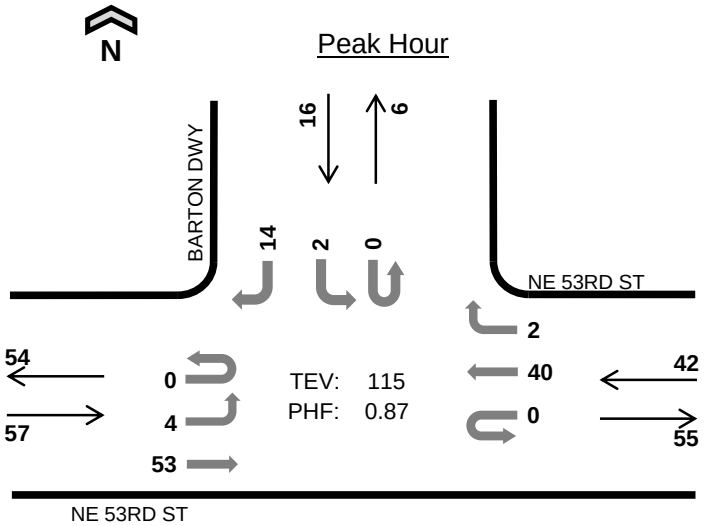
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

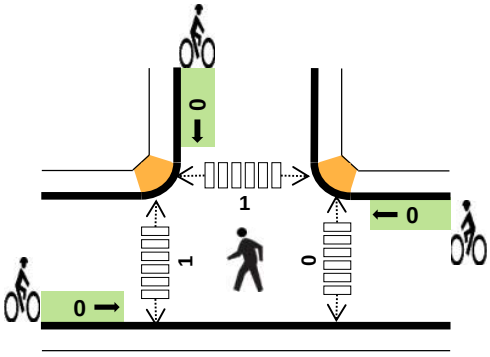
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	2	0	*3*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:45 AM	0	0	0	0	*0*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

BARTON DWY
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM

Peak Hour





	HV %:	PHF
EB	0.0%	0.75
WB	2.4%	0.70
NB	-	-
SB	0.0%	0.67
TOTAL	0.9%	0.87

Two-Hour Count Summaries

Interval Start	NE 53RD ST Eastbound				NE 53RD ST Westbound				0 Northbound				BARTON DWY 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	0	10	0	0	0	10	2	0	0	0	0	0	0	0	6	28	0
4:15 PM	**0**	**1**	**14**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**33**	0
4:30 PM	**0**	**0**	**12**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**23**	0
4:45 PM	**0**	**1**	**18**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**27**	111
5:00 PM	**0**	**2**	**9**	**0**	**0**	**0**	**14**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**32**	**115**
5:15 PM	0	0	7	0	0	0	6	0	0	0	0	0	0	1	0	1	15	97
5:30 PM	0	0	7	0	0	0	8	0	0	0	0	0	0	0	0	2	17	91
5:45 PM	0	0	8	0	0	0	9	0	0	0	0	0	0	0	0	1	18	82
Count Total	0	4	85	0	0	0	73	4	0	0	0	0	0	3	0	24	193	0
Peak Hour	**0**	**4**	**53**	**0**	**0**	**0**	**40**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**14**	**115**	**0**

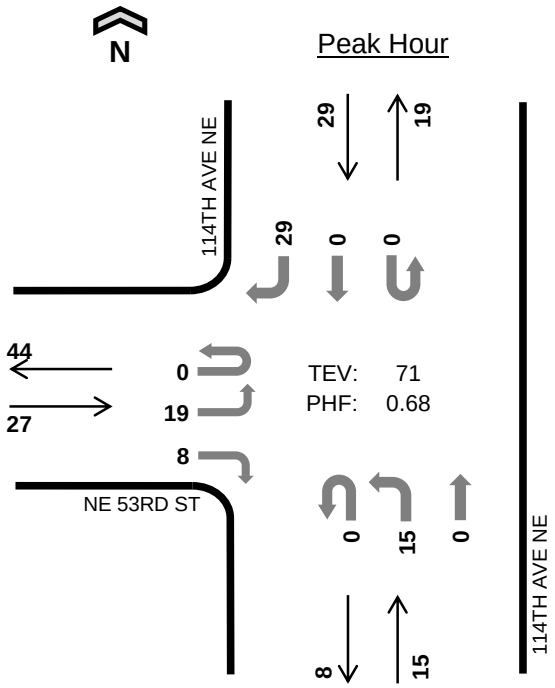
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

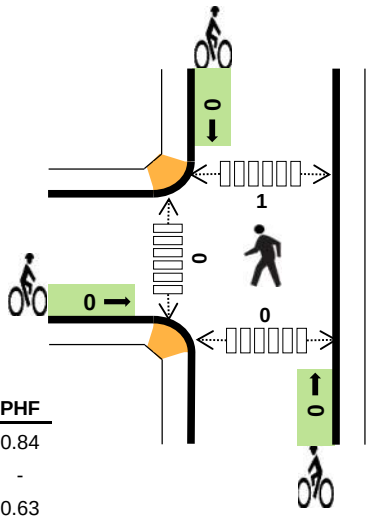
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	1	0	*1*
4:15 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM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

114TH AVE NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.84
WB	-	-
NB	0.0%	0.63
SB	0.0%	0.40
TOTAL	0.0%	0.68

Two-Hour Count Summaries

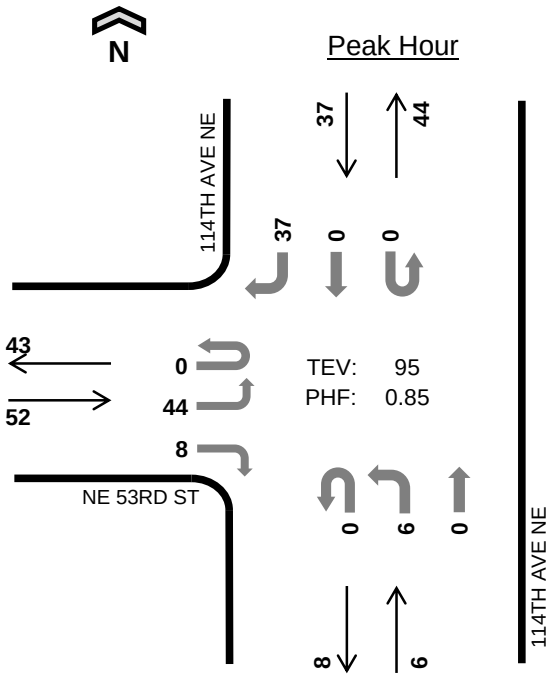
Interval Start	NE 53RD ST				0				114TH AVE NE				114TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	2	7	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	10	11	0
7:30 AM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	6	9	0
7:45 AM	0	2	0	2	0	0	0	0	0	4	0	0	0	0	0	14	22	49
8:00 AM	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**8**	**18**	60
8:15 AM	**0**	**6**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**12**	61
8:30 AM	**0**	**6**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**1**	**15**	67
8:45 AM	**0**	**5**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**18**	**26**	**71**
Count Total	0	24	0	10	0	0	0	0	0	25	0	0	0	0	0	61	120	0
Peak Hour	**0**	**19**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**29**	**71**	**0**

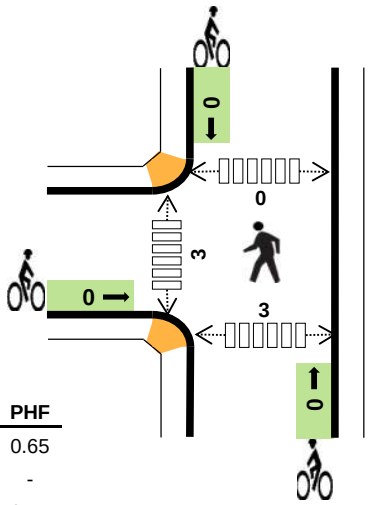
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
8:45 AM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
Count Total	0	0	0	0	*0*	0	0	0	0	*0*	0	0	3	0	*3*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***

114TH AVE NE
NE 53RD ST

Date: Wed, Apr 13, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	0.0%	0.65
WB	-	-
NB	0.0%	0.75
SB	2.7%	0.71
TOTAL	1.1%	0.85

Two-Hour Count Summaries

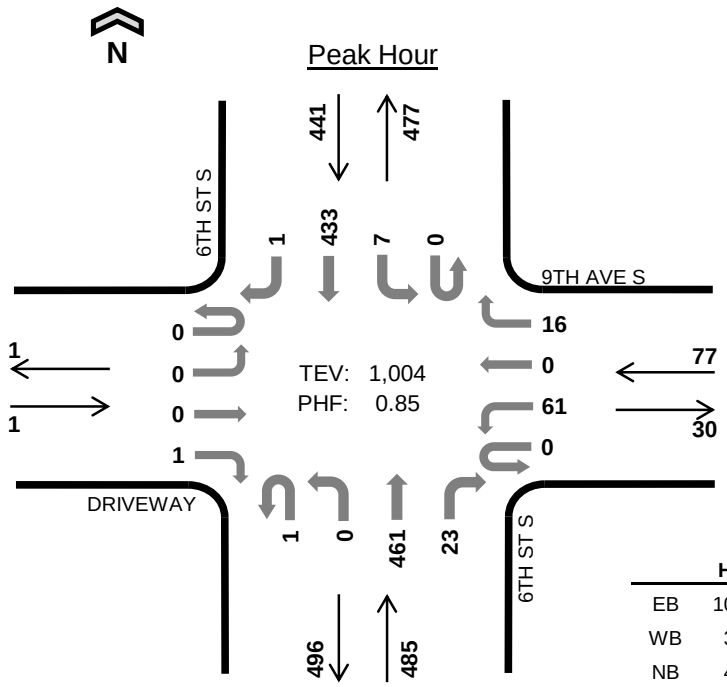
Interval Start	NE 53RD ST				0				114TH AVE NE				114TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	6	0	3	0	0	0	0	0	0	1	0	0	0	0	9	19	0
4:15 PM	**0**	**10**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**13**	**28**	0
4:30 PM	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**15**	0
4:45 PM	**0**	**16**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**7**	**28**	90
5:00 PM	**0**	**9**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**13**	**24**	**95**
5:15 PM	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	4	13	80
5:30 PM	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	8	15	80
5:45 PM	0	10	0	0	0	0	0	0	0	2	0	0	0	0	0	7	19	71
Count Total	0	74	0	13	0	0	0	0	0	8	1	0	0	0	0	65	161	0
Peak Hour	**0**	**44**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**37**	**95**	**0**

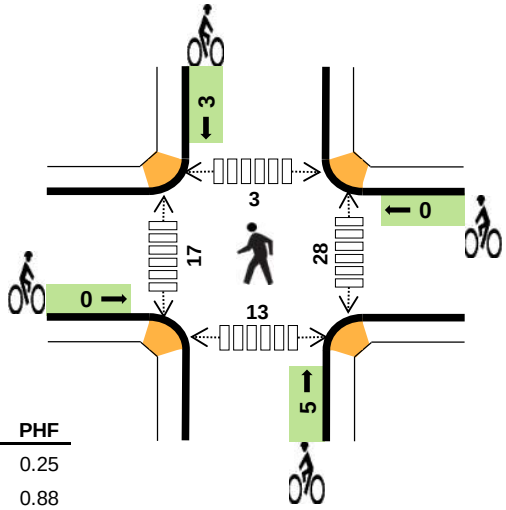
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**3**	***6***
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	2	0	*2*
5:30 PM	0	0	0	0	*0*	0	0	1	0	*1*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	1	0	1	1	*3*	0	0	1	0	*1*	0	3	3	3	*9*
Peak Hr	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**3**	***6***

6TH ST S
9TH AVE S

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	100.0%	0.25
WB	3.9%	0.88
NB	4.9%	0.76
SB	5.7%	0.93
TOTAL	5.3%	0.85

Two-Hour Count Summaries

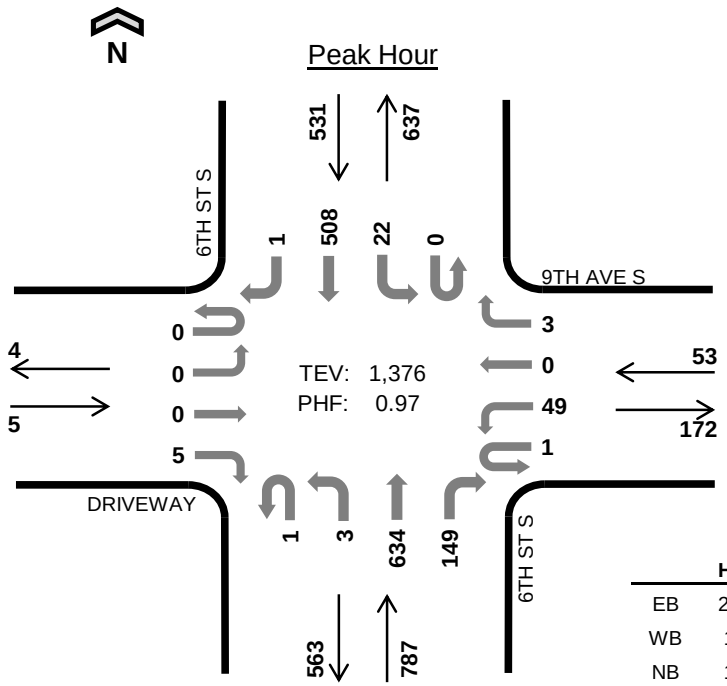
Interval Start	DRIVEWAY Eastbound				9TH AVE S Westbound				6TH ST S Northbound				6TH ST S Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	10	0	0	1	0	39	12	0	2	78	0	142	0
7:15 AM	0	0	0	0	0	10	0	1	0	0	67	3	0	0	92	0	173	0
7:30 AM	0	0	0	0	0	19	0	2	1	0	66	5	0	1	101	1	196	0
7:45 AM	0	0	0	0	0	20	0	1	1	2	105	9	0	3	107	0	248	759
8:00 AM	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**6**	**0**	**0**	**102**	**6**	**0**	**3**	**101**	**0**	**231**	848
8:15 AM	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**3**	**0**	**0**	**105**	**5**	**0**	**1**	**102**	**0**	**235**	910
8:30 AM	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**2**	**0**	**0**	**104**	**3**	**0**	**0**	**119**	**0**	**241**	955
8:45 AM	**0**	**0**	**0**	**1**	**0**	**16**	**0**	**5**	**1**	**0**	**150**	**9**	**0**	**3**	**111**	**1**	**297**	**1,004**
Count Total	0	0	0	1	0	120	0	20	4	2	738	52	0	13	811	2	1,763	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**61**	**0**	**16**	**1**	**0**	**461**	**23**	**0**	**7**	**433**	**1**	**1,004**	**0**

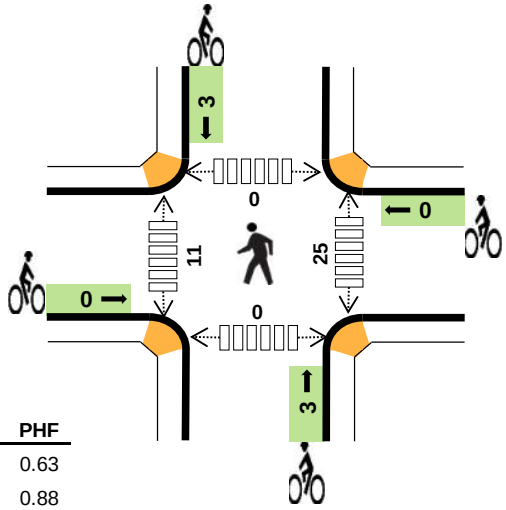
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	4	2	*6*	0	0	0	0	*0*	4	2	2	1	*9*
7:15 AM	0	0	1	7	*8*	0	0	0	0	*0*	1	3	1	0	*5*
7:30 AM	0	2	7	3	*12*	0	0	0	0	*0*	11	1	4	1	*17*
7:45 AM	0	1	4	6	*11*	0	1	0	0	*1*	2	3	0	1	*6*
8:00 AM	**0**	**1**	**7**	**5**	***13***	**0**	**0**	**1**	**0**	***1***	**8**	**8**	**1**	**5**	*22*
8:15 AM	**0**	**0**	**5**	**8**	***13***	**0**	**0**	**2**	**2**	***4***	**10**	**1**	**0**	**1**	*12*
8:30 AM	**0**	**2**	**4**	**4**	***10***	**0**	**0**	**0**	**0**	***0***	**2**	**4**	**0**	**2**	*8*
8:45 AM	**1**	**0**	**8**	**8**	***17***	**0**	**0**	**2**	**1**	***3***	**8**	**4**	**2**	**5**	***19***
Count Total	1	6	40	43	*90*	0	1	5	3	*9*	46	26	10	16	*98*
Peak Hour	**1**	**3**	**24**	**25**	***53***	**0**	**0**	**5**	**3**	***8***	**28**	**17**	**3**	**13**	***61***

6TH ST S
9TH AVE S

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	20.0%	0.63
WB	1.9%	0.88
NB	1.5%	0.97
SB	2.8%	0.85
TOTAL	2.1%	0.97

Two-Hour Count Summaries

Interval Start	DRIVEWAY Eastbound				9TH AVE S Westbound				6TH ST S Northbound				6TH ST S 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	0	0	1	0	7	0	4	0	0	154	6	0	7	110	0	289	0
4:15 PM	0	0	0	0	0	6	0	6	0	0	162	21	0	3	104	0	302	0
4:30 PM	0	0	0	0	0	21	0	1	0	0	169	15	0	4	98	1	309	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**11**	**0**	**1**	**0**	**0**	**166**	**35**	**0**	**7**	**116**	**0**	**337**	1,237
5:00 PM	**0**	**0**	**0**	**1**	**1**	**8**	**0**	**2**	**0**	**1**	**159**	**27**	**0**	**6**	**151**	**0**	**356**	1,304
5:15 PM	**0**	**0**	**0**	**1**	**0**	**15**	**0**	**0**	**0**	**0**	**159**	**43**	**0**	**8**	**125**	**1**	**352**	1,354
5:30 PM	**0**	**0**	**0**	**2**	**0**	**15**	**0**	**0**	**1**	**2**	**150**	**44**	**0**	**1**	**116**	**0**	**331**	**1,376**
5:45 PM	0	0	0	1	0	12	0	1	0	1	148	36	0	3	110	0	312	1,351
Count Total	0	0	0	7	1	95	0	15	1	4	1,267	227	0	39	930	2	2,588	0
Peak Hour	**0**	**0**	**0**	**5**	**1**	**49**	**0**	**3**	**1**	**3**	**634**	**149**	**0**	**22**	**508**	**1**	**1,376**	**0**

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

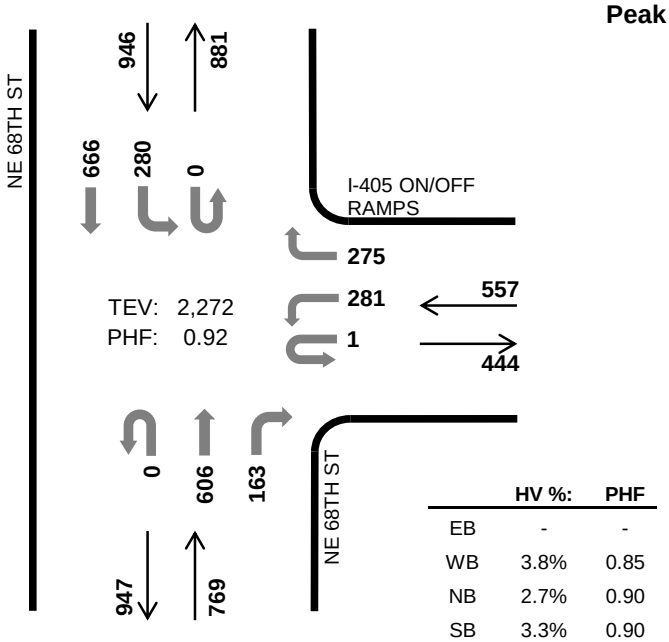
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	1	3	3	*8*	0	0	1	0	*1*	13	2	0	0	*15*
4:15 PM	0	0	4	6	*10*	0	0	0	0	*0*	4	3	1	1	*9*
4:30 PM	0	0	3	5	*8*	0	0	0	0	*0*	3	0	0	1	*4*
4:45 PM	**1**	**0**	**3**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**0**	**0**	*5*
5:00 PM	**0**	**1**	**5**	**4**	***10***	**0**	**0**	**1**	**0**	***1***	**19**	**5**	**0**	**0**	*24*
5:15 PM	**0**	**0**	**1**	**5**	***6***	**0**	**0**	**1**	**1**	***2***	**3**	**2**	**0**	**0**	*5*
5:30 PM	**0**	**0**	**3**	**3**	***6***	**0**	**0**	**1**	**2**	***3***	**1**	**1**	**0**	**0**	***2***
5:45 PM	0	0	7	3	*10*	0	0	1	0	*1*	2	1	0	0	*3*
Count Total	2	2	29	32	*65*	0	0	5	3	*8*	47	17	1	2	*67*
Peak Hour	**1**	**1**	**12**	**15**	***29***	**0**	**0**	**3**	**3**	***6***	**25**	**11**	**0**	**0**	***36***

NE 68TH ST
I-405 ON/OFF RAMPS

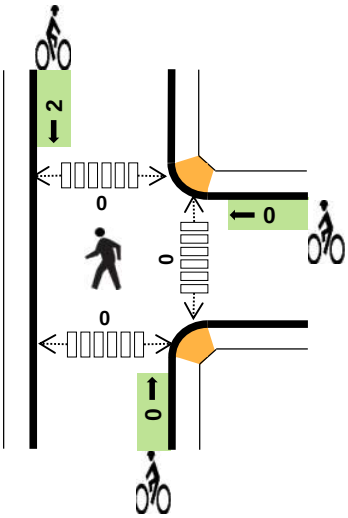
Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	3.8%	0.85
NB	2.7%	0.90
SB	3.3%	0.90
TOTAL	3.2%	0.92



Two-Hour Count Summaries

Interval Start	0				I-405 ON/OFF RAMPS				NE 68TH ST				NE 68TH ST				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	77	0	58	0	0	85	45	0	79	148	0	492	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**85**	**0**	**55**	**0**	**0**	**163**	**50**	**0**	**68**	**194**	**0**	**615**	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**58**	**0**	**76**	**0**	**0**	**144**	**38**	**0**	**76**	**136**	**0**	**528**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**83**	**0**	**80**	**0**	**0**	**174**	**36**	**0**	**61**	**158**	**0**	**592**	2,227
8:00 AM	**0**	**0**	**0**	**0**	**1**	**55**	**0**	**64**	**0**	**0**	**125**	**39**	**0**	**75**	**178**	**0**	**537**	**2,272**
8:15 AM	0	0	0	0	0	77	0	82	0	0	122	46	0	73	134	0	534	2,191
8:30 AM	0	0	0	0	0	79	0	62	0	0	129	47	0	70	141	0	528	2,191
8:45 AM	0	0	0	0	0	73	0	76	0	0	128	45	0	71	166	0	559	2,158
Count Total	0	0	0	0	1	587	0	553	0	0	1,070	346	0	573	1,255	0	4,385	0
Peak Hour	**0**	**0**	**0**	**0**	**1**	**281**	**0**	**275**	**0**	**0**	**606**	**163**	**0**	**280**	**666**	**0**	**2,272**	**0**

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

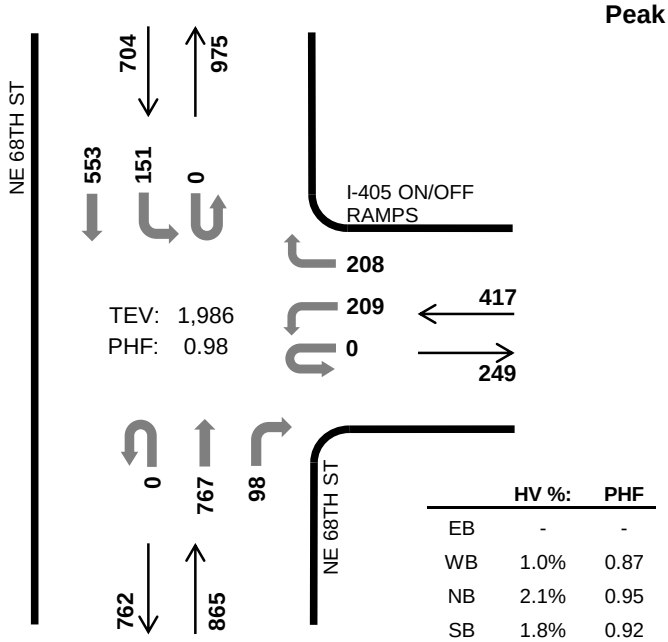
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	2	2	6	*10*	0	0	1	0	*1*	0	0	0	0	*0*
7:15 AM	**0**	**4**	**9**	**7**	***20***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:30 AM	**0**	**6**	**5**	**10**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**0**	**5**	**2**	**9**	***16***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**0**	**6**	**5**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:15 AM	0	4	6	6	*16*	0	0	0	1	*1*	0	0	0	0	*0*
8:30 AM	0	8	8	8	*24*	0	0	1	2	*3*	0	0	0	0	*0*
8:45 AM	0	5	7	10	*22*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	0	40	44	61	*145*	0	0	2	6	*8*	0	0	0	0	*0*
Peak Hr	**0**	**21**	**21**	**31**	***73***	**0**	**0**	**0**	**2**	***2***	**0**	**0**	**0**	**0**	***0***

NE 68TH ST
I-405 ON/OFF RAMPS

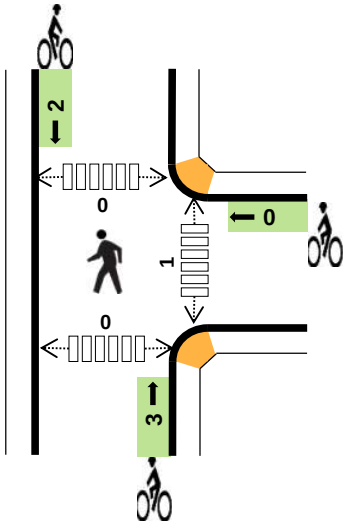
Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	1.0%	0.87
NB	2.1%	0.95
SB	1.8%	0.92
TOTAL	1.8%	0.98



Two-Hour Count Summaries

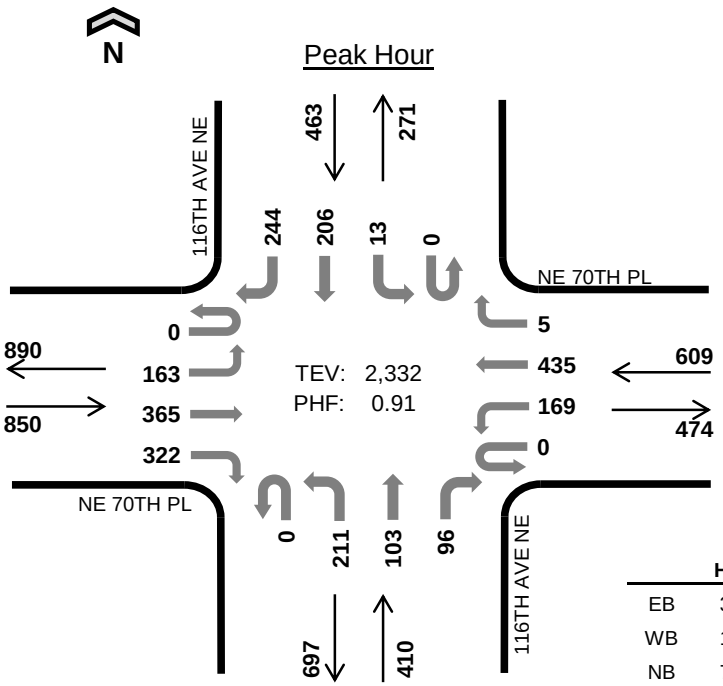
Interval Start	0				I-405 ON/OFF RAMPS				NE 68TH ST				NE 68TH ST				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	51	0	58	0	0	181	35	0	33	125	0	483	0
4:15 PM	0	0	0	0	0	61	0	52	0	0	178	30	0	30	138	0	489	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**46**	**0**	**46**	**0**	**0**	**197**	**24**	**0**	**43**	**148**	**0**	**504**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**69**	**0**	**51**	**0**	**0**	**172**	**31**	**0**	**33**	**142**	**0**	**498**	1,974
5:00 PM	**0**	**0**	**0**	**0**	**0**	**41**	**0**	**58**	**0**	**0**	**190**	**24**	**0**	**39**	**124**	**0**	**476**	1,967
5:15 PM	**0**	**0**	**0**	**0**	**0**	**53**	**0**	**53**	**0**	**0**	**208**	**19**	**0**	**36**	**139**	**0**	**508**	**1,986**
5:30 PM	0	0	0	0	0	52	0	61	0	0	195	28	0	30	127	0	493	1,975
5:45 PM	0	0	0	0	0	54	0	71	0	0	185	23	0	25	132	0	490	1,967
Count Total	0	0	0	0	0	427	0	450	0	0	1,506	214	0	269	1,075	0	3,941	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**209**	**0**	**208**	**0**	**0**	**767**	**98**	**0**	**151**	**553**	**0**	**1,986**	**0**

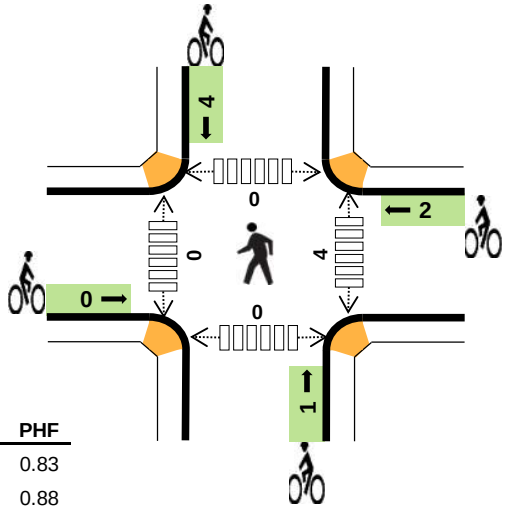
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	6	4	*11*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	2	4	4	*10*	0	0	0	0	*0*	1	0	0	0	*1*
4:30 PM	**0**	**3**	**4**	**3**	***10***	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**0**	**1**	**7**	**4**	***12***	**0**	**0**	**1**	**1**	***2***	**0**	**0**	**0**	**0**	*0*
5:00 PM	**0**	**0**	**5**	**5**	***10***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**0**	**0**	**2**	**1**	***3***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**0**	**0**	***1***
5:30 PM	0	1	3	0	*4*	0	0	1	0	*1*	0	0	0	0	*0*
5:45 PM	0	0	2	1	*3*	0	0	0	1	*1*	0	0	0	0	*0*
Count Total	0	8	33	22	*63*	0	0	4	3	*7*	2	0	0	0	*2*
Peak Hr	**0**	**4**	**18**	**13**	***35***	**0**	**0**	**3**	**2**	***5***	**1**	**0**	**0**	**0**	***1***

116TH AVE NE
NE 70TH PL

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	3.5%	0.83
WB	1.6%	0.88
NB	7.1%	0.90
SB	2.4%	0.94
TOTAL	3.4%	0.91

Two-Hour Count Summaries

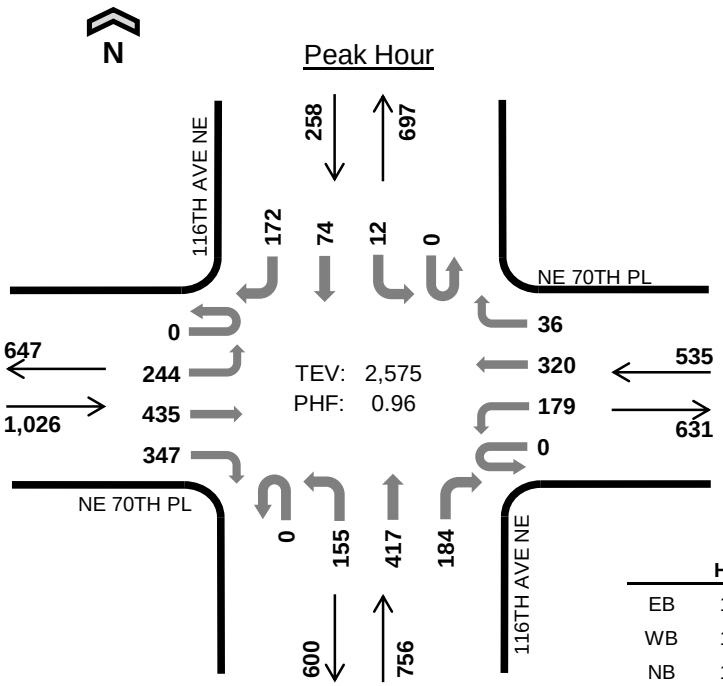
Interval Start	NE 70TH PL Eastbound				NE 70TH PL Westbound				116TH AVE NE Northbound				116TH AVE NE Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	9	70	57	0	30	124	2	0	66	11	29	0	2	27	51	478	0
7:15 AM	0	38	101	69	0	38	136	3	0	58	20	13	0	0	30	60	566	0
7:30 AM	**0**	**52**	**88**	**74**	**0**	**57**	**101**	**3**	**0**	**44**	**31**	**27**	**0**	**4**	**48**	**64**	**593**	0
7:45 AM	**0**	**71**	**90**	**95**	**0**	**44**	**129**	**0**	**0**	**47**	**27**	**25**	**0**	**5**	**46**	**63**	**642**	2,279
8:00 AM	**0**	**17**	**90**	**80**	**0**	**25**	**111**	**0**	**0**	**58**	**23**	**14**	**0**	**1**	**46**	**63**	**528**	2,329
8:15 AM	**0**	**23**	**97**	**73**	**0**	**43**	**94**	**2**	**0**	**62**	**22**	**30**	**0**	**3**	**66**	**54**	**569**	**2,332**
8:30 AM	0	17	107	85	0	53	119	3	0	46	11	34	0	1	34	46	556	2,295
8:45 AM	0	15	111	69	0	37	112	1	0	88	24	26	0	2	44	33	562	2,215
Count Total	0	242	754	602	0	327	926	14	0	469	169	198	0	18	341	434	4,494	0
Peak Hour	**0**	**163**	**365**	**322**	**0**	**169**	**435**	**5**	**0**	**211**	**103**	**96**	**0**	**13**	**206**	**244**	**2,332**	**0**

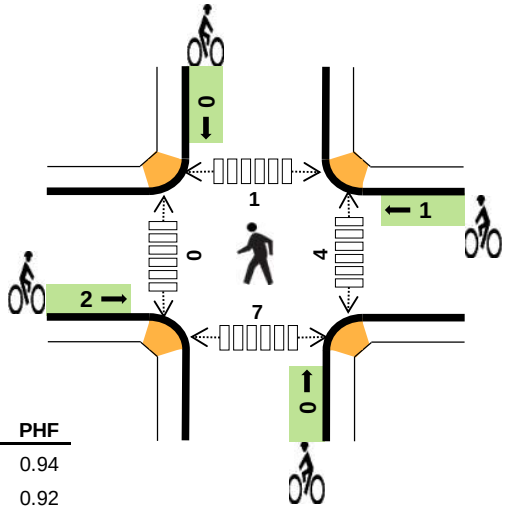
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	4	6	1	*13*	0	1	0	1	*2*	0	0	1	0	*1*
7:15 AM	9	2	8	0	*19*	0	0	1	1	*2*	0	0	0	0	*0*
7:30 AM	**7**	**4**	**7**	**2**	***20***	**0**	**0**	**1**	**3**	***4***	**2**	**0**	**0**	**0**	*2*
7:45 AM	**5**	**2**	**10**	**3**	***20***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**9**	**1**	**6**	**2**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**9**	**3**	**6**	**4**	***22***	**0**	**2**	**0**	**1**	***3***	**1**	**0**	**0**	**0**	***1***
8:30 AM	10	3	6	3	*22*	1	3	0	0	*4*	1	0	0	1	*2*
8:45 AM	9	5	13	3	*30*	0	1	0	0	*1*	0	0	0	0	*0*
Count Total	60	24	62	18	*164*	1	7	2	6	*16*	5	0	1	1	*7*
Peak Hour	**30**	**10**	**29**	**11**	***80***	**0**	**2**	**1**	**4**	***7***	**4**	**0**	**0**	**0**	***4***

116TH AVE NE
NE 70TH PL

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM





	HV %:	PHF
EB	1.0%	0.94
WB	1.1%	0.92
NB	1.3%	0.89
SB	1.2%	0.83
TOTAL	1.1%	0.96

Two-Hour Count Summaries

Interval Start	NE 70TH PL Eastbound				NE 70TH PL Westbound				116TH AVE NE Northbound				116TH AVE NE 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	50	92	95	0	47	73	6	0	42	87	48	0	3	19	41	603	0
4:15 PM	0	62	99	83	0	59	74	9	0	57	84	39	0	0	15	46	627	0
4:30 PM	0	61	85	84	0	49	87	5	0	52	100	51	0	2	16	41	633	0
4:45 PM	0	62	98	68	0	36	80	6	0	47	103	43	0	1	17	50	611	2,474
5:00 PM	**0**	**58**	**100**	**95**	**0**	**46**	**80**	**6**	**0**	**41**	**94**	**52**	**0**	**1**	**17**	**35**	**625**	2,496
5:15 PM	**0**	**63**	**111**	**83**	**0**	**42**	**91**	**13**	**0**	**39**	**113**	**38**	**0**	**5**	**23**	**50**	**671**	2,540
5:30 PM	**0**	**59**	**103**	**80**	**0**	**58**	**66**	**8**	**0**	**48**	**108**	**57**	**0**	**4**	**16**	**41**	**648**	2,555
5:45 PM	**0**	**64**	**121**	**89**	**0**	**33**	**83**	**9**	**0**	**27**	**102**	**37**	**0**	**2**	**18**	**46**	**631**	**2,575**
Count Total	0	479	809	677	0	370	634	62	0	353	791	365	0	18	141	350	5,049	0
Peak Hour	**0**	**244**	**435**	**347**	**0**	**179**	**320**	**36**	**0**	**155**	**417**	**184**	**0**	**12**	**74**	**172**	**2,575**	**0**

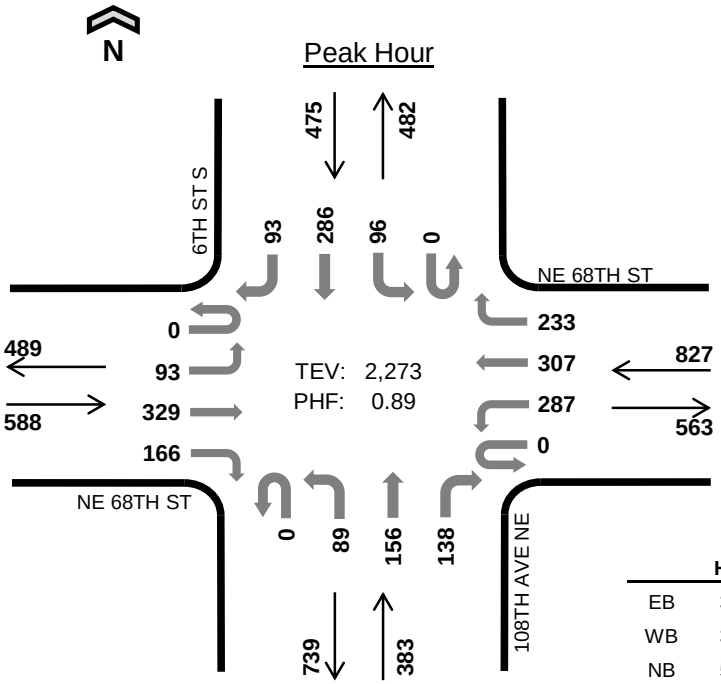
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

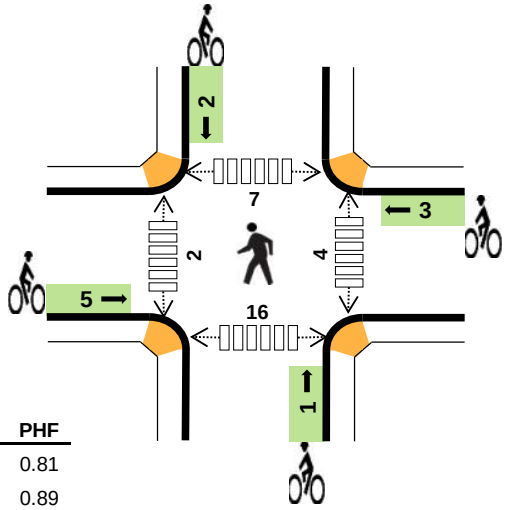
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	5	0	7	1	*13*	0	0	1	0	*1*	2	2	0	0	*4*
4:15 PM	5	3	5	0	*13*	0	0	0	0	*0*	0	0	0	6	*6*
4:30 PM	5	1	4	2	*12*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	6	1	4	2	*13*	2	2	0	0	*4*	1	0	0	2	*3*
5:00 PM	**3**	**5**	**4**	**1**	***13***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**1**	*1*
5:15 PM	**2**	**0**	**2**	**2**	***6***	**1**	**0**	**0**	**0**	***1***	**2**	**0**	**1**	**4**	*7*
5:30 PM	**4**	**0**	**3**	**0**	***7***	**1**	**0**	**0**	**0**	***1***	**1**	**0**	**0**	**1**	*2*
5:45 PM	**1**	**1**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**1**	***2***
Count Total	31	11	30	8	*80*	4	3	1	0	*8*	7	2	1	15	*25*
Peak Hour	**10**	**6**	**10**	**3**	***29***	**2**	**1**	**0**	**0**	***3***	**4**	**0**	**1**	**7**	***12***

108TH AVE NE
NE 68TH ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM

Peak Hour





	HV %:	PHF
EB	3.7%	0.81
WB	3.4%	0.89
NB	5.2%	0.92
SB	5.3%	0.94
TOTAL	4.2%	0.89

Two-Hour Count Summaries

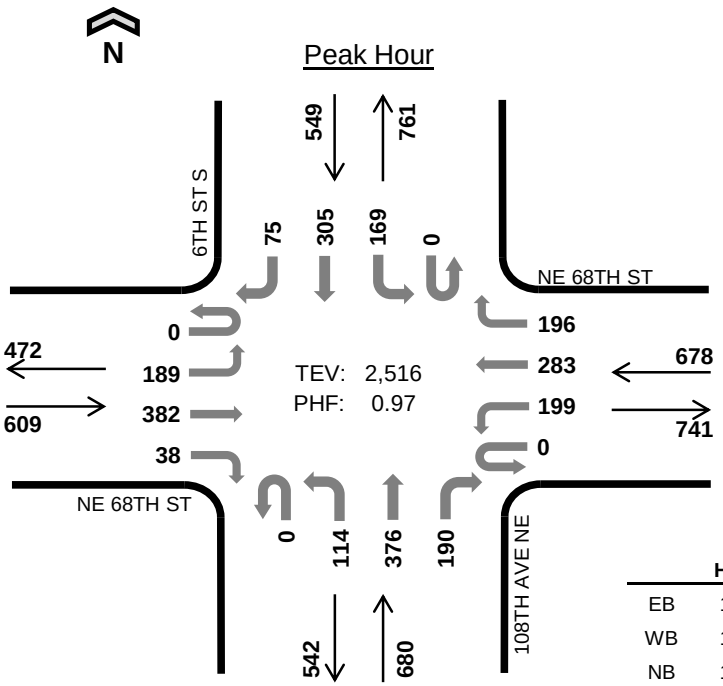
Interval Start	NE 68TH ST Eastbound				NE 68TH ST Westbound				108TH AVE NE Northbound				6TH ST S Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	12	68	17	0	56	54	31	0	5	7	22	0	11	65	9	357	0
7:15 AM	0	15	70	29	0	65	74	36	0	10	15	30	0	20	71	14	449	0
7:30 AM	0	23	70	28	0	78	75	30	0	7	26	59	0	18	79	17	510	0
7:45 AM	0	29	69	33	0	88	85	49	0	9	37	48	0	40	84	18	589	1,905
8:00 AM	**0**	**23**	**67**	**39**	**0**	**91**	**69**	**45**	**0**	**19**	**37**	**44**	**0**	**20**	**63**	**26**	**543**	2,091
8:15 AM	**0**	**20**	**74**	**29**	**0**	**63**	**65**	**47**	**0**	**15**	**37**	**30**	**0**	**23**	**82**	**21**	**506**	2,148
8:30 AM	**0**	**27**	**88**	**40**	**0**	**75**	**86**	**54**	**0**	**24**	**38**	**35**	**0**	**35**	**62**	**18**	**582**	2,220
8:45 AM	**0**	**23**	**100**	**58**	**0**	**58**	**87**	**87**	**0**	**31**	**44**	**29**	**0**	**18**	**79**	**28**	**642**	**2,273**
Count Total	0	172	606	273	0	574	595	379	0	120	241	297	0	185	585	151	4,178	0
Peak Hour	**0**	**93**	**329**	**166**	**0**	**287**	**307**	**233**	**0**	**89**	**156**	**138**	**0**	**96**	**286**	**93**	**2,273**	**0**

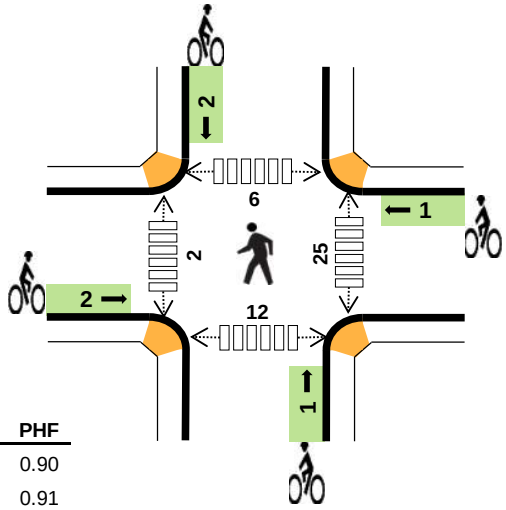
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	3	5	2	2	*12*	2	0	0	0	*2*	4	1	3	1	*9*
7:15 AM	5	3	4	8	*20*	0	0	0	0	*0*	4	1	4	5	*14*
7:30 AM	4	9	7	4	*24*	0	0	0	0	*0*	7	1	5	3	*16*
7:45 AM	1	9	1	6	*17*	0	2	0	2	*4*	1	5	1	2	*9*
8:00 AM	**5**	**4**	**5**	**4**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
8:15 AM	**3**	**3**	**5**	**9**	***20***	**1**	**1**	**0**	**2**	***4***	**0**	**1**	**0**	**3**	*4*
8:30 AM	**6**	**10**	**3**	**4**	***23***	**1**	**2**	**1**	**0**	***4***	**1**	**1**	**4**	**9**	*15*
8:45 AM	**8**	**11**	**7**	**8**	***34***	**3**	**0**	**0**	**0**	***3***	**3**	**0**	**2**	**4**	***9***
Count Total	35	54	34	45	*168*	7	5	1	4	*17*	20	10	20	27	*77*
Peak Hour	**22**	**28**	**20**	**25**	***95***	**5**	**3**	**1**	**2**	***11***	**4**	**2**	**7**	**16**	***29***

108TH AVE NE
NE 68TH ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	1.3%	0.90
WB	1.6%	0.91
NB	1.5%	0.92
SB	3.1%	0.88
TOTAL	1.8%	0.97

Two-Hour Count Summaries

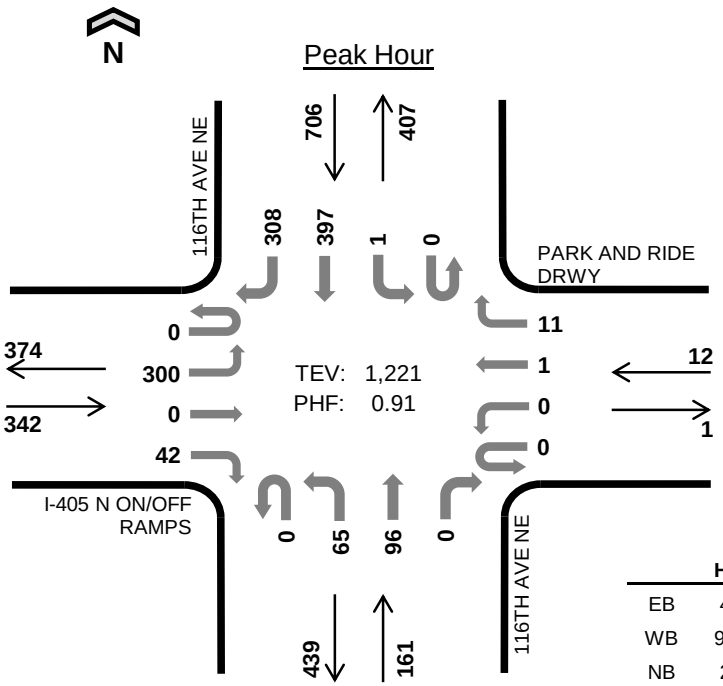
Interval Start	NE 68TH ST Eastbound				NE 68TH ST Westbound				108TH AVE NE Northbound				6TH ST S Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	37	95	14	0	51	71	31	0	27	96	52	0	34	71	16	595	0
4:15 PM	0	52	81	10	0	43	75	35	0	15	102	57	0	35	59	23	587	0
4:30 PM	**0**	**40**	**104**	**12**	**0**	**43**	**84**	**45**	**0**	**34**	**101**	**50**	**0**	**34**	**68**	**13**	**628**	0
4:45 PM	**0**	**34**	**94**	**2**	**0**	**60**	**69**	**58**	**0**	**22**	**102**	**37**	**0**	**38**	**80**	**21**	**617**	2,427
5:00 PM	**0**	**51**	**94**	**9**	**0**	**54**	**58**	**46**	**0**	**25**	**83**	**48**	**0**	**46**	**85**	**25**	**624**	2,456
5:15 PM	**0**	**64**	**90**	**15**	**0**	**42**	**72**	**47**	**0**	**33**	**90**	**55**	**0**	**51**	**72**	**16**	**647**	**2,516**
5:30 PM	0	61	82	11	0	51	66	47	0	16	89	49	0	51	58	27	608	2,496
5:45 PM	0	47	79	13	0	59	69	49	0	10	71	57	0	28	57	22	561	2,440
Count Total	0	386	719	86	0	403	564	358	0	182	734	405	0	317	550	163	4,867	0
Peak Hour	**0**	**189**	**382**	**38**	**0**	**199**	**283**	**196**	**0**	**114**	**376**	**190**	**0**	**169**	**305**	**75**	**2,516**	**0**

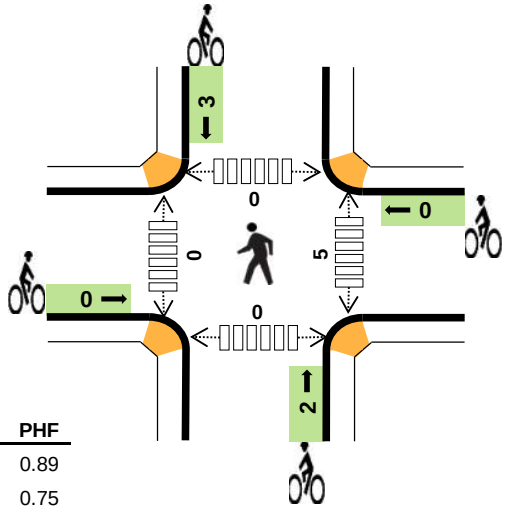
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	3	2	6	3	*14*	0	0	0	1	*1*	16	0	2	3	*21*
4:15 PM	1	2	3	6	*12*	0	0	0	0	*0*	0	1	4	1	*6*
4:30 PM	**1**	**2**	**4**	**4**	***11***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**2**	**1**	*3*
4:45 PM	**3**	**3**	**2**	**3**	***11***	**1**	**0**	**0**	**0**	***1***	**8**	**0**	**1**	**4**	*13*
5:00 PM	**2**	**4**	**3**	**4**	***13***	**1**	**1**	**0**	**0**	***2***	**15**	**2**	**2**	**5**	*24*
5:15 PM	**2**	**2**	**1**	**6**	***11***	**0**	**0**	**1**	**1**	***2***	**2**	**0**	**1**	**2**	***5***
5:30 PM	3	0	1	3	*7*	0	0	0	1	*1*	1	1	1	2	*5*
5:45 PM	2	1	7	3	*13*	0	1	0	0	*1*	1	1	3	5	*10*
Count Total	17	16	27	32	*92*	2	2	1	4	*9*	43	5	16	23	*87*
Peak Hour	**8**	**11**	**10**	**17**	***46***	**2**	**1**	**1**	**2**	***6***	**25**	**2**	**6**	**12**	***45***

116TH AVE NE
I-405 N ON/OFF RAMPS

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	4.1%	0.89
WB	91.7%	0.75
NB	2.5%	0.88
SB	2.5%	0.90
TOTAL	3.8%	0.91

Two-Hour Count Summaries

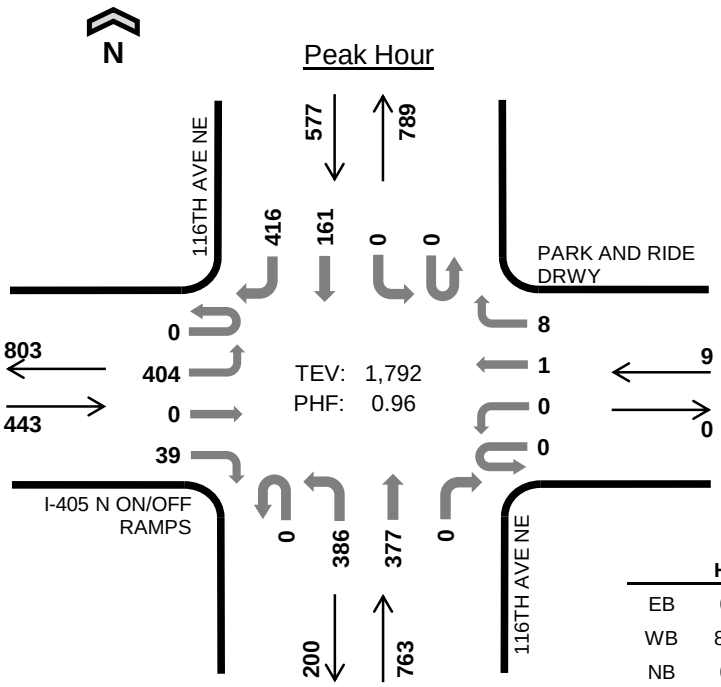
Interval Start	I-405 N ON/OFF RAMPS				PARK AND RIDE DRWY				116TH AVE NE				116TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	86	1	9	0	0	2	3	0	9	12	0	0	0	53	61	236	0
7:15 AM	0	82	0	8	0	0	0	1	0	17	19	0	0	0	60	76	263	0
7:30 AM	**0**	**74**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**21**	**25**	**0**	**0**	**0**	**90**	**82**	**301**	0
7:45 AM	**0**	**82**	**0**	**14**	**0**	**0**	**0**	**3**	**0**	**19**	**22**	**0**	**0**	**0**	**108**	**88**	**336**	1,136
8:00 AM	**0**	**63**	**0**	**13**	**0**	**0**	**1**	**1**	**0**	**14**	**22**	**0**	**0**	**1**	**90**	**67**	**272**	1,172
8:15 AM	**0**	**81**	**0**	**9**	**0**	**0**	**0**	**4**	**0**	**11**	**27**	**0**	**0**	**0**	**109**	**71**	**312**	**1,221**
8:30 AM	0	75	0	15	0	0	0	1	0	10	26	0	0	0	88	84	299	1,219
8:45 AM	0	93	0	10	0	0	0	3	0	24	32	0	0	0	86	63	311	1,194
Count Total	0	636	1	84	0	0	3	19	0	125	185	0	0	1	684	592	2,330	0
Peak Hour	**0**	**300**	**0**	**42**	**0**	**0**	**1**	**11**	**0**	**65**	**96**	**0**	**0**	**1**	**397**	**308**	**1,221**	**0**

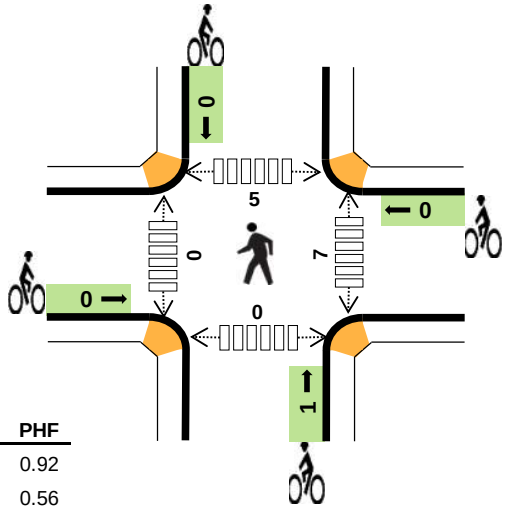
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	3	3	2	*10*	0	0	0	1	*1*	4	0	0	0	*4*
7:15 AM	5	1	2	4	*12*	0	0	1	0	*1*	4	0	1	0	*5*
7:30 AM	**2**	**3**	**0**	**2**	***7***	**0**	**0**	**2**	**2**	***4***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**7**	**3**	**0**	**4**	***14***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
8:00 AM	**3**	**1**	**2**	**5**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:15 AM	**2**	**4**	**2**	**7**	***15***	**0**	**0**	**0**	**1**	***1***	**2**	**0**	**0**	**0**	***2***
8:30 AM	5	1	7	6	*19*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	7	3	1	8	*19*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	33	19	17	38	*107*	0	0	3	4	*7*	13	0	1	0	*14*
Peak Hour	**14**	**11**	**4**	**18**	***47***	**0**	**0**	**2**	**3**	***5***	**5**	**0**	**0**	**0**	***5***

116TH AVE NE
I-405 N ON/OFF RAMPS

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM





	HV %:	PHF
EB	0.9%	0.92
WB	88.9%	0.56
NB	0.5%	0.97
SB	1.6%	0.93
TOTAL	1.4%	0.96

Two-Hour Count Summaries

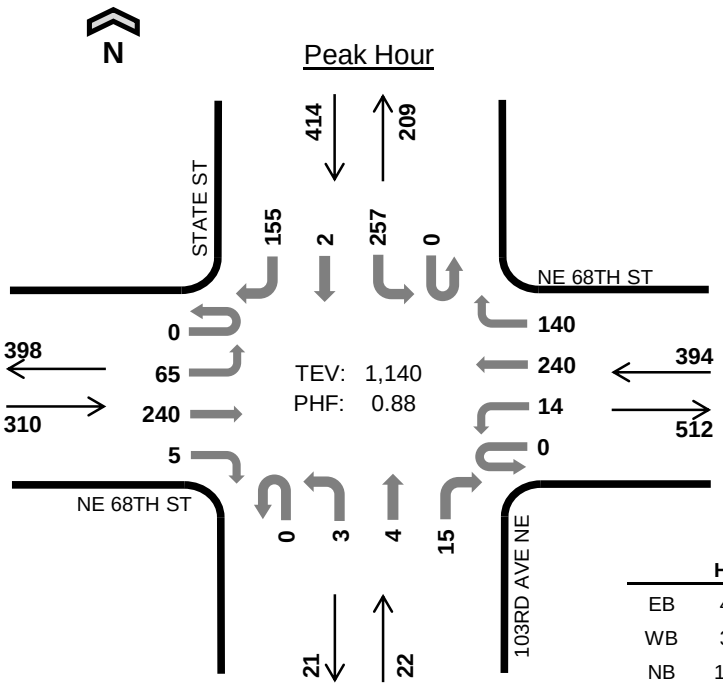
Interval Start	I-405 N ON/OFF RAMPS				PARK AND RIDE DRWY				116TH AVE NE				116TH AVE NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	93	0	8	0	0	1	4	0	102	79	0	0	0	37	127	451	0
4:15 PM	0	101	0	15	0	0	0	2	0	85	82	0	0	0	39	120	444	0
4:30 PM	0	103	0	15	0	1	0	2	0	81	91	0	0	0	51	97	441	0
4:45 PM	**0**	**89**	**0**	**3**	**0**	**0**	**1**	**3**	**0**	**97**	**99**	**0**	**0**	**0**	**36**	**87**	**415**	1,751
5:00 PM	**0**	**101**	**0**	**11**	**0**	**0**	**0**	**2**	**0**	**106**	**88**	**0**	**0**	**0**	**42**	**113**	**463**	1,763
5:15 PM	**0**	**109**	**0**	**12**	**0**	**0**	**0**	**2**	**0**	**89**	**90**	**0**	**0**	**0**	**45**	**99**	**446**	1,765
5:30 PM	**0**	**105**	**0**	**13**	**0**	**0**	**0**	**1**	**0**	**94**	**100**	**0**	**0**	**0**	**38**	**117**	**468**	**1,792**
5:45 PM	1	91	0	8	0	0	0	1	0	89	82	0	0	0	47	91	410	1,787
Count Total	1	792	0	85	0	1	2	17	0	743	711	0	0	0	335	851	3,538	0
Peak Hour	**0**	**404**	**0**	**39**	**0**	**0**	**1**	**8**	**0**	**386**	**377**	**0**	**0**	**0**	**161**	**416**	**1,792**	**0**

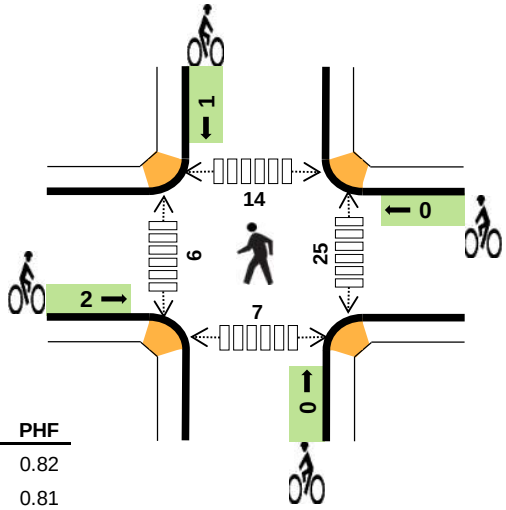
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	4	7	1	*14*	0	0	1	0	*1*	1	0	0	0	*1*
4:15 PM	2	1	1	5	*9*	0	0	0	0	*0*	1	0	0	0	*1*
4:30 PM	5	2	0	2	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	**1**	**3**	**1**	**3**	***8***	**0**	**0**	**1**	**0**	***1***	**3**	**0**	**2**	**0**	*5*
5:00 PM	**1**	**2**	**1**	**4**	***8***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**2**	**0**	*4*
5:15 PM	**1**	**2**	**0**	**1**	***4***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**1**	**0**	*3*
5:30 PM	**1**	**1**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:45 PM	2	1	0	2	*5*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	15	16	12	19	*62*	0	0	2	0	*2*	10	0	5	0	*15*
Peak Hour	**4**	**8**	**4**	**9**	***25***	**0**	**0**	**1**	**0**	***1***	**7**	**0**	**5**	**0**	***12***

STATE ST
NE 68TH ST

Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 8:00 AM to 9:00 AM





	HV %:	PHF
EB	4.2%	0.82
WB	3.3%	0.81
NB	18.2%	0.79
SB	2.7%	0.92
TOTAL	3.6%	0.88

Two-Hour Count Summaries

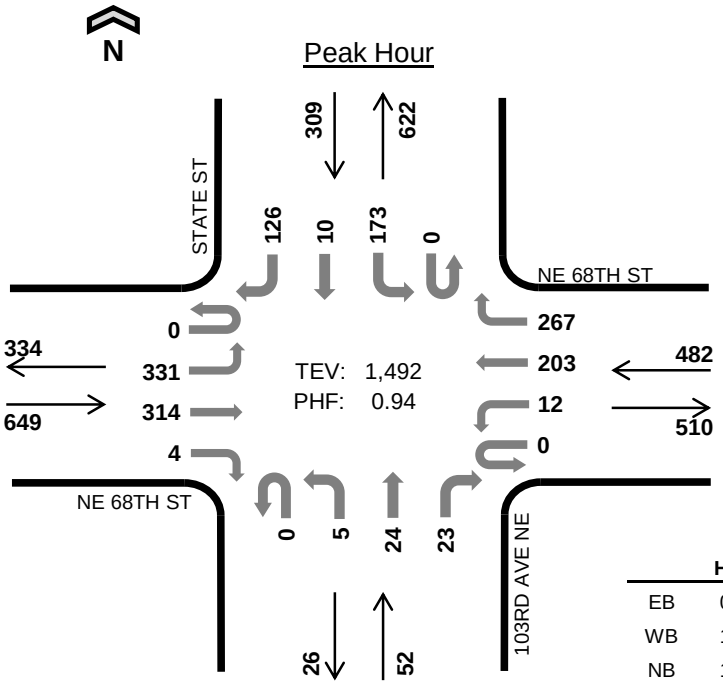
Interval Start	NE 68TH ST Eastbound				NE 68TH ST Westbound				103RD AVE NE Northbound				STATE ST Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	10	30	0	0	1	42	16	0	0	0	4	0	47	0	32	182	0
7:15 AM	0	11	28	0	0	0	58	13	0	1	3	4	0	69	0	22	209	0
7:30 AM	0	17	41	0	0	3	67	16	0	1	0	6	0	58	0	38	247	0
7:45 AM	0	11	48	2	0	1	64	25	0	2	1	5	0	52	1	52	264	902
8:00 AM	**0**	**11**	**61**	**1**	**0**	**3**	**70**	**26**	**0**	**1**	**3**	**1**	**0**	**66**	**1**	**35**	**279**	999
8:15 AM	**0**	**15**	**46**	**0**	**0**	**0**	**62**	**24**	**0**	**0**	**1**	**4**	**0**	**61**	**1**	**41**	**255**	1,045
8:30 AM	**0**	**12**	**79**	**3**	**0**	**1**	**48**	**38**	**0**	**0**	**0**	**5**	**0**	**62**	**0**	**35**	**283**	1,081
8:45 AM	**0**	**27**	**54**	**1**	**0**	**10**	**60**	**52**	**0**	**2**	**0**	**5**	**0**	**68**	**0**	**44**	**323**	**1,140**
Count Total	0	114	387	7	0	19	471	210	0	7	8	34	0	483	3	299	2,042	0
Peak Hour	**0**	**65**	**240**	**5**	**0**	**14**	**240**	**140**	**0**	**3**	**4**	**15**	**0**	**257**	**2**	**155**	**1,140**	**0**

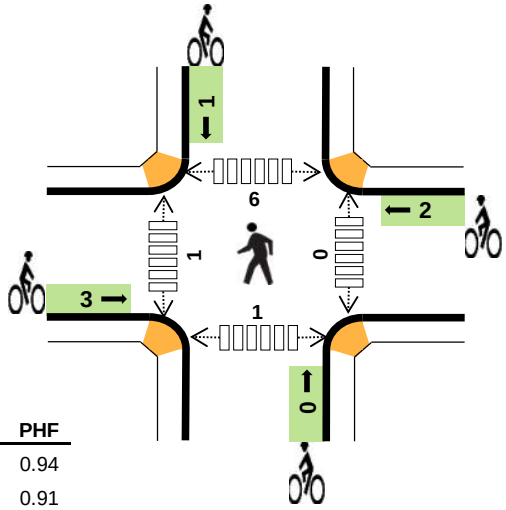
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

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	2	4	*6*
7:15 AM	1	2	0	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	4	6	0	4	*14*	0	0	0	0	*0*	0	0	1	1	*2*
7:45 AM	3	4	0	1	*8*	0	1	0	0	*1*	1	0	2	1	*4*
8:00 AM	**2**	**1**	**1**	**3**	***7***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**2**	*3*
8:15 AM	**1**	**2**	**1**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**2**	**0**	*7*
8:30 AM	**6**	**5**	**1**	**2**	***14***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**1**	*4*
8:45 AM	**4**	**5**	**1**	**3**	***13***	**1**	**0**	**0**	**1**	***2***	**20**	**2**	**12**	**4**	***38***
Count Total	23	25	5	21	*74*	2	1	0	1	*4*	26	6	19	13	*64*
Peak Hour	**13**	**13**	**4**	**11**	***41***	**2**	**0**	**0**	**1**	***3***	**25**	**6**	**14**	**7**	***52***

STATE ST
NE 68TH ST

Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV %:	PHF
EB	0.6%	0.94
WB	1.2%	0.91
NB	1.9%	0.68
SB	3.2%	0.88
TOTAL	1.4%	0.94

Two-Hour Count Summaries

Interval Start	NE 68TH ST Eastbound				NE 68TH ST Westbound				103RD AVE NE Northbound				STATE ST 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	80	77	0	0	1	56	59	0	1	3	3	0	55	2	30	367	0
4:15 PM	0	77	80	1	0	1	43	63	0	0	2	3	0	50	1	25	346	0
4:30 PM	**0**	**84**	**81**	**1**	**0**	**3**	**57**	**72**	**0**	**3**	**0**	**6**	**0**	**47**	**2**	**32**	**388**	0
4:45 PM	**0**	**90**	**62**	**0**	**0**	**4**	**42**	**50**	**0**	**1**	**11**	**6**	**0**	**36**	**2**	**35**	**339**	1,440
5:00 PM	**0**	**81**	**90**	**1**	**0**	**1**	**53**	**68**	**0**	**0**	**4**	**2**	**0**	**36**	**1**	**30**	**367**	1,440
5:15 PM	**0**	**76**	**81**	**2**	**0**	**4**	**51**	**77**	**0**	**1**	**9**	**9**	**0**	**54**	**5**	**29**	**398**	**1,492**
5:30 PM	0	84	91	0	0	2	51	63	0	0	3	4	0	46	2	15	361	1,465
5:45 PM	0	65	72	3	0	4	56	54	0	2	15	8	0	48	2	25	354	1,480
Count Total	0	637	634	8	0	20	409	506	0	8	47	41	0	372	17	221	2,920	0
Peak Hour	**0**	**331**	**314**	**4**	**0**	**12**	**203**	**267**	**0**	**5**	**24**	**23**	**0**	**173**	**10**	**126**	**1,492**	**0**

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

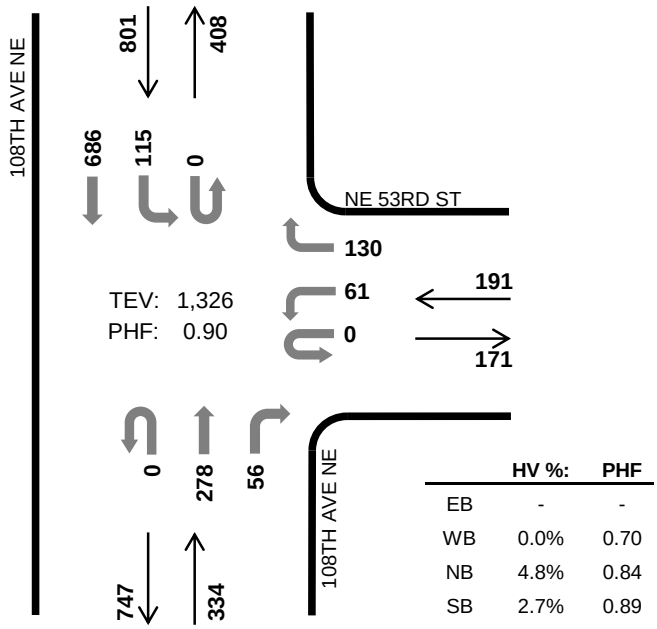
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	2	0	3	*7*	0	0	0	0	*0*	0	0	5	0	*5*
4:15 PM	1	0	0	3	*4*	0	0	0	0	*0*	0	2	1	1	*4*
4:30 PM	**1**	**1**	**1**	**3**	***6***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**2**	**0**	*3*
4:45 PM	**1**	**1**	**0**	**4**	***6***	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**2**	**1**	*3*
5:00 PM	**0**	**3**	**0**	**1**	***4***	**0**	**2**	**0**	**1**	***3***	**0**	**0**	**0**	**0**	*0*
5:15 PM	**2**	**1**	**0**	**2**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	***2***
5:30 PM	1	1	0	4	*6*	0	0	0	0	*0*	0	3	2	0	*5*
5:45 PM	1	1	0	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	9	10	1	22	*42*	3	2	0	1	*6*	0	6	14	2	*22*
Peak Hour	**4**	**6**	**1**	**10**	***21***	**3**	**2**	**0**	**1**	***6***	**0**	**1**	**6**	**1**	***8***

108TH AVE NE
NE 53RD ST

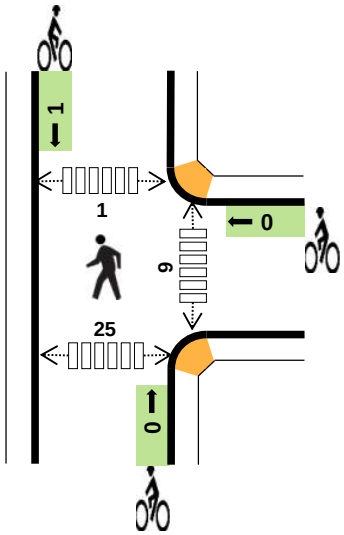
Date: Tue, Apr 12, 2016
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.70
NB	4.8%	0.84
SB	2.7%	0.89
TOTAL	2.9%	0.90



Two-Hour Count Summaries

Interval Start	0				NE 53RD ST				108TH AVE NE				108TH AVE NE				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	8	0	7	0	0	34	3	0	10	106	0	168	0
7:15 AM	0	0	0	0	0	14	0	7	0	0	57	6	0	12	145	0	241	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**28**	**0**	**0**	**68**	**14**	**0**	**19**	**171**	**0**	**318**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**38**	**0**	**0**	**78**	**22**	**0**	**51**	**173**	**0**	**370**	1,097
8:00 AM	**0**	**0**	**0**	**0**	**0**	**23**	**0**	**45**	**0**	**0**	**67**	**14**	**0**	**33**	**185**	**0**	**367**	1,296
8:15 AM	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**19**	**0**	**0**	**65**	**6**	**0**	**12**	**157**	**0**	**271**	**1,326**
8:30 AM	0	0	0	0	0	14	0	19	0	0	80	5	0	14	164	0	296	1,304
8:45 AM	0	0	0	0	0	8	0	10	0	0	87	10	0	19	169	0	303	1,237
Count Total	0	0	0	0	0	105	0	173	0	0	536	80	0	170	1,270	0	2,334	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**61**	**0**	**130**	**0**	**0**	**278**	**56**	**0**	**115**	**686**	**0**	**1,326**	**0**

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

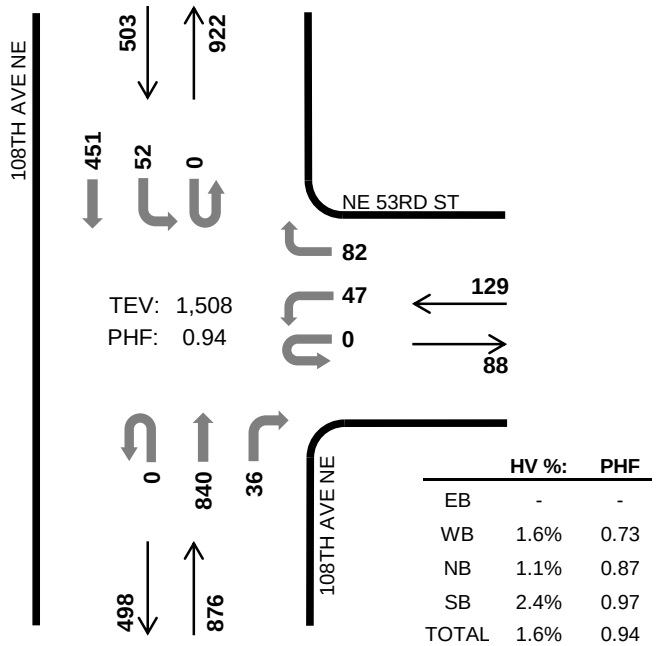
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	1	5	*6*	0	0	0	0	*0*	2	0	0	4	*6*
7:15 AM	0	0	3	4	*7*	0	0	0	0	*0*	2	0	0	2	*4*
7:30 AM	**0**	**0**	**5**	**7**	***12***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**6**	*11*
7:45 AM	**0**	**0**	**4**	**6**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**7**	*8*
8:00 AM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**1**	**4**	*5*
8:15 AM	**0**	**0**	**4**	**5**	***9***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**8**	***11***
8:30 AM	0	0	2	3	*5*	0	0	0	0	*0*	1	0	0	2	*3*
8:45 AM	0	0	7	4	*11*	0	0	0	0	*0*	1	0	0	5	*6*
Count Total	0	0	29	38	*67*	0	0	0	1	*1*	15	0	1	38	*54*
Peak Hr	**0**	**0**	**16**	**22**	***38***	**0**	**0**	**0**	**1**	***1***	**9**	**0**	**1**	**25**	***35***

108TH AVE NE
NE 53RD ST

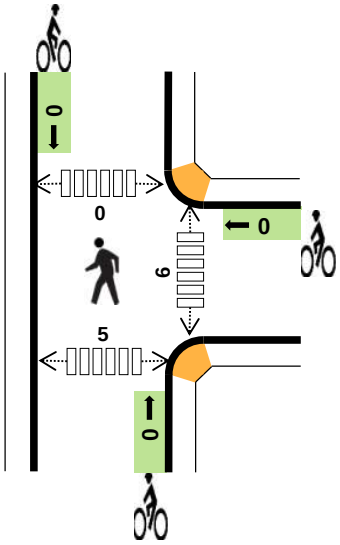
Date: Tue, Apr 12, 2016
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

N

Peak Hour



	HV %:	PHF
EB	-	-
WB	1.6%	0.73
NB	1.1%	0.87
SB	2.4%	0.97
TOTAL	1.6%	0.94



Two-Hour Count Summaries

Interval Start	0				NE 53RD ST				108TH AVE NE				108TH AVE NE				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	10	0	24	0	0	202	4	0	14	102	0	356	0
4:15 PM	0	0	0	0	0	7	0	15	0	0	181	6	0	6	90	0	305	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**15**	**0**	**0**	**199**	**11**	**0**	**14**	**108**	**0**	**356**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**25**	**0**	**0**	**200**	**5**	**0**	**17**	**113**	**0**	**379**	1,396
5:00 PM	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**29**	**0**	**0**	**198**	**12**	**0**	**12**	**113**	**0**	**374**	1,414
5:15 PM	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**13**	**0**	**0**	**243**	**8**	**0**	**9**	**117**	**0**	**399**	**1,508**
5:30 PM	0	0	0	0	0	9	0	16	0	0	197	4	0	12	106	0	344	1,496
5:45 PM	0	0	0	0	0	6	0	21	0	0	161	8	0	16	113	0	325	1,442
Count Total	0	0	0	0	0	79	0	158	0	0	1,581	58	0	100	862	0	2,838	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**47**	**0**	**82**	**0**	**0**	**840**	**36**	**0**	**52**	**451**	**0**	**1,508**	**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	2	5	*8*	0	0	1	0	*1*	3	0	0	0	*3*
4:15 PM	0	1	2	3	*6*	0	0	0	0	*0*	1	0	0	3	*4*
4:30 PM	**0**	**0**	**3**	**4**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
4:45 PM	**0**	**1**	**3**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	*2*
5:00 PM	**0**	**1**	**3**	**3**	***7***	**0**	**0**	**0**	**0**	***0***	**4**	**0**	**0**	**4**	*8*
5:15 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:30 PM	0	0	3	1	*4*	0	0	0	0	*0*	4	0	0	1	*5*
5:45 PM	0	0	5	4	*9*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	0	4	22	25	*51*	0	0	1	0	*1*	16	0	0	9	*25*
Peak Hr	**0**	**2**	**10**	**12**	***24***	**0**	**0**	**0**	**0**	***0***	**6**	**0**	**0**	**5**	***11***

Existing Traffic

2016	Existing Traffic	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SUM
101	Lake WA Blvd/NE 38th Pl	19	6	31	102	1	170	10	1018	73	54	840	6	2330
102	Lake WA Blvd/Lakeview Dr	27	91	158	303	27	3	59	444	607	7	354	12	2092
103	NE 68th St/State St	349	383	3	7	213	244	3	13	17	136	2	114	1484
104	NE 68th St/108th Ave NE	198	370	63	209	248	161	100	352	217	146	287	89	2440
105	Central Way/6th St	31	420	84	148	599	168	144	277	282	73	106	52	2384
106	Central Way/3rd St S	30	292	71	125	463	92	131	282	129	100	100	18	1833
107	Central Way/Lake St		220	209	148	426		423	0	50				1476
108	Lake St/Kirkland Ave	7	31	32	80	26	54	5	435	53	3	321	30	1077
109	NE 85th St/114th Ave NE	2	724	5	327	969	353	11	79	488	251	23	7	3239
110	6th St S/4th St	91	7	25	59	10	199	16	396	79	102	188	16	1188
111	Kirkland Ave/3rd Street	31	74	32	116	121	154	48	333	114	80	152	51	1306
112	Kirkland Way/6th Street	89	188	33	49	130	36	51	379	27	28	190	85	1285
201	NE 116th St/98th Ave NE	68	271	220	62	439	116	494	702	132	140	249	63	2956
202	NE 124th St/100th Ave NE	26	60	20	331	209	923	40	769	232	376	388	25	3399
203	NE 132nd St/100th Ave NE	92	133	131	62	280	499	256	1281	79	224	595	74	3706
204	NE 132nd St/116th Way NE	7	350	205	134	583	27	536	37	244	11	26	9	2169
205	Forbes Creek Dr/Market St	10	0	1	50	0	12	1	1313	91	17	519	4	2018
208	Juanita Dr/97th Ave NE	75	445	6	23	930	59	6	14	21	44	12	90	1725
301	NE 132nd St/120th Ave NE	2	379	58	140	378	3	150	6	413	0	4	5	1538
302	NE 130th St/120th Ave NE	23	26	31	179	3	51	6	464	141	22	217	5	1168
303	NE 128th St/120th Ave NE	150	146	135	148	221	24	102	421	105	10	276	179	1917
304	NE 132nd St/124th Ave NE	388	308	12	47	288	277	33	302	175	111	67	173	2181
306	NE 124th St/Slater Ave NE	167	815	59	218	1058	248	59	453	258	162	195	191	3883
307	Totem Lake Blvd/120th Ave NE	25	293	55	156	610	286	201	220	15	425	136	25	2447
310	NE 116th St/120th Ave NE	132	459	26	221	747	434	33	165	195	255	147	168	2982
311	NE 116th St/124th Ave NE	155	315	207	96	410	26	484	559	250	76	292	197	3067
312	NE 124th St/116th Way NE	127	664	90	238	1153	299	254	292	235	462	131	139	4084
313	NE 124th St/113th Ave NE	54	584	48	55	1269	127	168	38	160	93	18	82	2696
314	NE 120th St/Slater Ave NE	25	136	10	165	319	393	31	487	100	112	364	25	2167
315	NE 124th St/124th Ave NE	113	762	312	101	948	381	368	588	153	221	315	202	4464
316	NE 132nd St/Totem Lake Blvd	107	364	154	55	398	18	268	189	88	4	87	52	1784
317	NE 124th St/SB I-405 off Ramp		764	0		1165	0				552		516	2997
318	NE 124th St/NB I-405 on/off Ramp		1057	0		1093	0	397		187				2734
319	NE 116th St/SB I-405 on Ramp		442	77	238	1466								2223
320	NE 116th St/NB I-405 off Ramp		429		0	1133		552		291				2405
323	NE 116th St/Slater Ave NE				47		72		552	80	42	542		1335
325	NE 124th St/128th Lane NE	47	1012	18	6	1334	28	11		7	24	0	93	2580
401	NE 85th St/132nd Ave NE	118	957	67	57	1144	820	51	313	28	197	113	42	3907
402	NE 85th St/124th Ave NE	216	964	27	14	861	278	92	329	31	170	123	155	3260
403	NE 85th St/120th Ave NE	236	1106	126	9	1048	54	257	140	46	89	69	232	3412
404	NE 100th St/124th Ave NE	7	9	20	63	12	211	18	915	27	41	385	8	1716
406	NE 70th St/132nd Ave NE	132	374	50	149	532	108	120	301	114	73	145	51	2149
407	NE 70th St/116th Ave NE	258	421	328	222	329	26	184	408	219	7	68	155	2625
408	NE 90th St/124th Ave NE	290	51	60	19	40	32	72	718	15	9	324	113	1743
409	NE 85th St/122nd Ave NE	99	1182	59	34	932	73	37	40	34	54	28	66	2638
410	116th Ave NE/I-405 NB off Ramp	482	0	59				366	331	1	3	150	442	1834
411	NE 70th St/I-405 SB off Ramp				207		252		767	111	163	575		2075
412	NE 85th St/128th Ave NE	41	1104	33	22	1203	63	50	53	48	32	13	12	2674
416	NE 80th St/132nd Ave NE	66	129	75	6	201	13	91	390	17	14	180	58	1240
999	NE 128th St/Totem Lake Blvd	2	323	152	2	457	72	354	454	48	32	204	112	2212
501	NE 122nd Pl/Juanita Dr NE				99		28		703	140	10	320		1300
502	76th Pl NE/Juanita Dr NE	27	3	47	5	0	3	70	817	8	0	381	38	1399
503	NE 141st Street/Juanita Dr NE	23	9	18	90	14	59	12	603	89	54	329	23	1323
504	Juanita-Woodinville Way/100th Ave NE	27	13	25	317	27	48	30	1351	397	27	558	17	2837
505	NE 137th Street/100th Avenue NE	31	50	80	35	88	102	150	1202	82	57	508	35	2420
506	Simonds Road/100th Avenue NE	274		313				550	662			274	375	2448
507	NE 145th street/100th Avenue NE	5	10	9	359	20	241	16	680	221	77	288	4	1930
508	NE 145th Street/Juanita-Woodinville Way	256	12	48	7	9	24	178	419	18	40	399	491	1901
509	NE 140th Street/132nd Avenue NE													0
510	NE 132nd Street/132nd Avenue NE	175	102	203	19	193	230	282	600	33	32	230	71	2170
511	NE 144th Street/124th Avenue NE	50	82	11	115	108	352	47	641	140	111	271	15	1943
512	NE 124th Street/Willows Road NE	25	787	350	61	570	63	775	367	363	142	107	73	3683
3xx	120th Avenue NE/NE 118th Street	63		132				122	662			450	18	1447
3xx	NE 124th St/120th Pl NE	17	1095	88	83	1476	9	63	4	57	4	2	17	2915
3xx	NE 100th st/132nd Ave NE	15	0	68	9	6	7	218	951	23	0	236	15	1548
3xx	NE 132nd Street/108th Ave NE	21	479			841	347				114			1802
3xx	NE 132nd Street/Juanita High School	2	385	81	105	773	5	49	0	58	3	0	2	1463
3xx	NE 124th Street/134th Ct	7	1105	18	7	1473	0	105	0	43	0	0	5	2763
3xx	116th Ave NE/NE 128th St	14	48	47	402	139	377	74	343	237	111	330	16	2138
3xx	NE 128th Street/Totem Lake Blvd	2	323	152	2	457	72	354	454	48	32	204	112	2212
4xx	NE 60th Street/132nd Ave NE	131		27				110	485			148	124	1025
4xx	NE 60th Street/116th Ave NE	2	1	2	69	1	109	2	554	69	66	106	2	983
	Project Driveway/3rd ave													0
	3rd ave/2nd st													0
	4th ave/2nd st													0
	4th ave/3rd st													0
	2nd Pl/Central Way													0
	1st/Central Way													0

2022	Future w/o Project	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
101	Lake WA Blvd/NE 38th Pl	23	9	35	123	1	209	11	1172	105	81	951	8
102	Lake WA Blvd/Lakeview Dr	32	102	181	355	30	3	68	523	704	11	425	14
103	NE 68th St/State St	408	438	3	8	244	287	3	15	19	168	2	140
104	NE 68th St/108th Ave NE	227	427	82	250	284	190	122	447	253	228	359	106
105	Central Way/6th St	38	550	101	170	832	189	186	343	323	82	126	61
106	Central Way/3rd St S	52	380	80	145	576	114	148	331	153	129	117	21
107	Central Way/Lake St	2	260	244	167	481	0	495	0	60	0	0	0
108	Lake St/Kirkland Ave	8	35	36	106	29	61	6	513	67	4	371	34
109	NE 85th St/114th Ave NE	2	899	3	380	1251	398	12	89	621	283	26	8
110	6th St S/4th St	102	8	30	67	11	226	22	504	91	116	227	18
111	Kirkland Ave/3rd Street	36	118	62	131	159	183	70	385	128	90	175	58
112	Kirkland Way/6th Street	103	238	43	59	156	42	82	488	78	32	230	97
201	NE 116th St/98th Ave NE	77	308	258	73	497	132	580	832	155	160	293	71
202	NE 124th St/100th Ave NE	29	69	23	376	237	1044	45	904	263	427	447	28
203	NE 132nd St/100th Ave NE	104	151	148	73	316	569	288	1482	92	254	680	83
204	NE 132nd St/116th Way NE	8	398	236	151	659	30	609	42	275	12	29	10
205	Forbes Creek Dr/Market St	11	0	1	58	0	14	1	1550	105	19	613	5
206	NE 120th Pl/100th Ave NE	0	0	0	0	0	0	0	33	0	0	7	0
207	Juanita Dr/93rd Ave NE	0	8	0	0	21	0	0	0	0	0	0	0
208	Juanita Dr/97th Ave NE	84	509	7	26	1067	68	7	16	24	50	14	101
209	n/a	0	0	0	0	0	0	0	0	0	0	0	0
211	n/a	0	0	0	0	0	0	0	0	0	0	0	0
301	NE 132nd St/120th Ave NE	2	428	67	158	427	3	170	7	467	0	5	6
302	NE 130th St/120th Ave NE	26	29	35	202	3	57	7	526	159	25	245	6
303	NE 128th St/120th Ave NE	169	167	152	169	253	28	115	476	122	12	311	202
304	NE 132nd St/124th Ave NE	438	352	14	54	325	315	37	344	198	125	76	195
306	NE 124th St/Slater Ave NE	216	976	66	248	1194	279	67	525	313	182	227	227
307	Totem Lake Blvd/120th Ave NE	28	346	62	176	693	327	226	250	17	480	155	28
310	NE 116th St/120th Ave NE	152	533	29	250	858	497	37	186	223	306	168	197
311	NE 1166th St/124th Ave NE	175	383	265	114	490	32	569	665	290	90	341	227
312	NE 124th St/116th Way NE	143	758	103	285	1310	341	288	331	265	525	150	157
313	NE 124th St/113th Ave NE	61	669	54	63	1440	143	191	43	182	105	20	92
314	NE 120th St/Slater Ave NE	29	153	11	187	359	445	35	580	113	127	441	28
315	NE 124th St/124th Ave NE	127	918	354	119	1110	438	421	672	188	267	363	227
316	NE 132nd St/Totem Lake Blvd	120	411	176	62	449	20	304	214	101	5	99	59
317	NE 124th St/SB I-405 off Ramp	0	872	0	0	1331	1	0	0	0	650	0	587
318	NE 124th St/NB I-405 on/off Ramp	0	1233	0	0	1251	0	449	0	217	0	0	0
319	n/a	0	499	88	273	1653	0	0	0	0	0	0	0
320	NE 116th St/NB I-405 off Ramp	0	516	0	0	1336	0	628	5	354	0	2	0
324	NE 128th St/116th Way NE	0	0	0	53	3	82	0	624	90	50	610	0
325	NE 124th St/128th Lane NE	53	1198	20	7	1543	32	12	0	8	27	0	105
401	NE 85th St/132nd Ave NE	135	1106	75	64	1323	924	58	353	32	222	127	49
402	NE 85th St/124th Ave NE	261	1120	30	16	1012	320	104	379	35	194	139	178
403	NE 85th St/120th Ave NE	282	1299	142	10	1233	61	294	158	52	102	78	263
404	NE 100th St/124th Ave NE	8	10	23	71	14	242	20	1076	32	47	441	9
406	NE 70th St/132nd Ave NE	149	436	56	168	600	122	135	339	128	82	163	57
407	NE 70th St/116th Ave NE	300	494	381	250	378	29	215	459	247	8	77	177
408	NE 90th St/124th Ave NE	334	57	68	21	45	36	81	819	17	12	368	127
409	NE 85th St/122nd Ave NE	111	1375	66	39	1096	82	43	46	38	61	35	74
410	116th Ave NE/I-405 NB off Ramp	550	0	66	0	2	0	412	374	1	3	174	502
411	NE 70th St/I-405 SB off Ramp	0	0	0	237	1	284	0	910	168	184	670	0
999													
501	NE 122nd Pl/Juanita Dr NE	0	0	0	111	0	32	0	800	158	11	361	0
502	76th Pl NE/Juanita Dr NE	30	3	53	6	0	3	79	928	9	0	430	43
503	NE 141st Street/Juanita Dr NE	26	10	20	101	16	66	14	684	100	61	371	26
504	Juanita-Woodinville Way/100th Ave NE	31	15	28	357	34	58	34	1537	455	30	633	19
505	NE 137th Street/100th Avenue NE	35	56	90	39	99	115	169	1362	92	64	572	39
506	Simonds Road/100th Avenue NE	309	0	355	0	0	0	624	761	0	0	310	422
507	NE 145th street/100th Avenue NE	6	11	10	405	23	271	19	776	251	87	325	5
508	NE 145th Street/Juanita-Woodinville Way	288	14	54	8	10	27	201	482	20	45	450	553
509	NE 140th Street/132nd Avenue NE	0	0	0	0	0	0	2	5	0	4	0	0
510	NE 132nd Street/132nd Avenue NE	197	119	229	21	219	271	318	681	37	48	260	80
511	NE 144th Street/124th Avenue NE	56	93	13	130	123	396	54	723	158	125	305	17
512	NE 124th Street/Willows Road NE	28	891	394	69	642	77	873	417	409	164	122	82
3xx	120th Avenue NE/NE 118th Street	71	3	150	6	4	26	138	791	17	17	571	20
3xx	NE 124th St/120th Pl NE	100	1233	107	140	1662	12	71	5	111	7	2	54
3xx	NE 100th st/132nd Ave NE	24	0	80	31	7	26	257	1089	80	8	281	22
3xx	NE 132nd Street/108th Ave NE	24	539	12	35	947	391	16	0	81	128	0	0
3xx	NE 132nd Street/Juanita High School	2	434	91	118	871	6	55	0	65	3	0	2
3xx	NE 124th Street/134th Ct	8	1246	20	8	1661	0	118	0	48	0	0	6
3xx	116th Ave NE/NE 128th St	16	54	53	453	157	425	83	386	267	125	372	18
3xx	NE 128th Street/Totem Lake Blvd	2	364	171	2	515	81	399	511	54	36	230	126
4xx	NE 60th Street/132nd Ave NE	148	0	30	0	0	0	124	546	0	0	167	140
4xx	NE 60th Street/116th Ave NE	2	1	2	78	1	123	2	624	78	74	119	2

Vehicle Speed Report Summary

Location: NE 53RD ST E/O 111TH AVE NE

Count Direction: Eastbound / Westbound

Date Range: 4/26/2016 to 5/2/2016

Site Code: 01

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Eastbound	9	38	329	1,479	3,140	2,022	372	42	0	0	0	0	0	0	0	0	0	7,431
Percent	0.1%	0.5%	4.4%	19.9%	42.3%	27.2%	5.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Westbound	5	43	339	1,833	3,250	1,718	301	24	2	0	0	0	0	0	0	0	0	7,515
Percent	0.1%	0.6%	4.5%	24.4%	43.2%	22.9%	4.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	14	81	668	3,312	6,390	3,740	673	66	2	0	0	0	0	0	0	0	0	14,946
Percent	0.1%	0.5%	4.5%	22.2%	42.8%	25.0%	4.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary			Total Study Speed Statistics		
Eastbound			**Eastbound**		
50th Percentile (Median)	28.0	mph	Mean (Average) Speed	27.9	mph
85th Percentile	32.5	mph	10 mph Pace	23.3 - 33.3	mph
95th Percentile	35.3	mph	Percent in Pace	72.3	%
Westbound			**Westbound**		
50th Percentile (Median)	27.3	mph	Mean (Average) Speed	27.3	mph
85th Percentile	31.8	mph	10 mph Pace	22.5 - 32.5	mph
95th Percentile	34.5	mph	Percent in Pace	74.1	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Tuesday, April 26, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	**5**
6:00 AM	0	0	4	9	7	6	1	0	0	0	0	0	0	0	0	0	0	**27**
7:00 AM	0	0	1	9	27	11	1	0	0	0	0	0	0	0	0	0	0	**49**
8:00 AM	0	0	5	19	34	22	3	0	0	0	0	0	0	0	0	0	0	**83**
9:00 AM	0	1	1	18	39	20	3	1	0	0	0	0	0	0	0	0	0	**83**
10:00 AM	0	0	2	17	29	17	2	0	0	0	0	0	0	0	0	0	0	**67**
11:00 AM	0	0	3	8	28	17	5	0	0	0	0	0	0	0	0	0	0	**61**
12:00 PM	0	0	5	11	33	28	5	1	0	0	0	0	0	0	0	0	0	**83**
1:00 PM	0	0	4	19	17	15	1	0	0	0	0	0	0	0	0	0	0	**56**
2:00 PM	0	0	3	12	16	16	3	0	0	0	0	0	0	0	0	0	0	**50**
3:00 PM	0	0	1	14	30	23	7	0	0	0	0	0	0	0	0	0	0	**75**
4:00 PM	0	1	1	13	26	27	5	0	0	0	0	0	0	0	0	0	0	**73**
5:00 PM	0	0	2	9	42	24	8	1	0	0	0	0	0	0	0	0	0	**86**
6:00 PM	0	1	1	17	50	25	4	2	0	0	0	0	0	0	0	0	0	**100**
7:00 PM	0	0	1	11	30	20	3	1	0	0	0	0	0	0	0	0	0	**66**
8:00 PM	0	0	0	9	25	14	3	0	0	0	0	0	0	0	0	0	0	**51**
9:00 PM	0	0	0	13	22	14	3	0	0	0	0	0	0	0	0	0	0	**52**
10:00 PM	0	0	0	1	11	10	0	0	0	0	0	0	0	0	0	0	0	**22**
11:00 PM	0	0	2	5	8	3	1	0	0	0	0	0	0	0	0	0	0	**19**
Total	**0**	**3**	**40**	**218**	**480**	**316**	**59**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,122**
Percent	**0.0%**	**0.3%**	**3.6%**	**19.4%**	**42.8%**	**28.2%**	**5.3%**	**0.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.4	mph	Mean (Average) Speed	28.3	mph
85th Percentile	32.5	mph	10 mph Pace	22.5 - 32.5	mph
95th Percentile	35.3	mph	Percent in Pace	73.8	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Tuesday, April 26, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	1	1	3	1	0	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	1	1	6	2	0	0	0	0	0	0	0	0	0	0	**10**
6:00 AM	0	0	0	6	13	8	0	0	0	0	0	0	0	0	0	0	0	**27**
7:00 AM	0	0	1	18	25	27	7	0	0	0	0	0	0	0	0	0	0	**78**
8:00 AM	0	0	10	16	29	13	2	0	0	0	0	0	0	0	0	0	0	**70**
9:00 AM	0	0	5	16	21	18	5	0	0	0	0	0	0	0	0	0	0	**65**
10:00 AM	0	0	1	17	30	19	1	2	0	0	0	0	0	0	0	0	0	**70**
11:00 AM	0	0	0	11	26	20	3	1	0	0	0	0	0	0	0	0	0	**61**
12:00 PM	0	0	4	30	34	17	1	0	0	0	0	0	0	0	0	0	0	**86**
1:00 PM	0	5	2	26	27	14	2	1	0	0	0	0	0	0	0	0	0	**77**
2:00 PM	0	1	2	11	38	25	4	0	0	0	0	0	0	0	0	0	0	**81**
3:00 PM	0	0	2	22	42	22	2	0	0	0	0	0	0	0	0	0	0	**90**
4:00 PM	0	1	2	17	38	14	4	0	0	0	0	0	0	0	0	0	0	**76**
5:00 PM	0	0	3	23	31	19	2	0	0	0	0	0	0	0	0	0	0	**78**
6:00 PM	0	1	2	17	19	15	6	1	0	0	0	0	0	0	0	0	0	**61**
7:00 PM	0	0	1	16	32	6	1	0	0	0	0	0	0	0	0	0	0	**56**
8:00 PM	0	0	5	20	26	9	0	1	0	0	0	0	0	0	0	0	0	**61**
9:00 PM	0	0	1	12	24	12	2	0	0	0	0	0	0	0	0	0	0	**51**
10:00 PM	1	0	1	3	7	4	2	1	0	0	0	0	0	0	0	0	0	**19**
11:00 PM	0	0	0	5	10	5	1	0	0	0	0	0	0	0	0	0	0	**21**
Total	**1**	**8**	**42**	**290**	**477**	**278**	**50**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,153**
Percent	**0.1%**	**0.7%**	**3.6%**	**25.2%**	**41.4%**	**24.1%**	**4.3%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.3	mph	Mean (Average) Speed	27.5	mph
85th Percentile	32.2	mph	10 mph Pace	21.9 - 31.9	mph
95th Percentile	34.9	mph	Percent in Pace	73.6	%

Mark Skaggs:425-250-0777
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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Wednesday, April 27, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	3	1	1	6	1	2	0	0	0	0	0	0	0	0	0	0	**14**
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
2:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	1	1	3	3	2	0	0	0	0	0	0	0	0	0	0	0	**10**
6:00 AM	0	0	2	7	11	7	1	1	0	0	0	0	0	0	0	0	0	**29**
7:00 AM	0	0	2	11	28	11	1	0	0	0	0	0	0	0	0	0	0	**53**
8:00 AM	0	0	2	12	39	14	2	0	0	0	0	0	0	0	0	0	0	**69**
9:00 AM	0	0	4	15	36	27	0	0	0	0	0	0	0	0	0	0	0	**82**
10:00 AM	0	0	3	16	45	11	7	0	0	0	0	0	0	0	0	0	0	**82**
11:00 AM	0	0	0	20	29	13	4	0	0	0	0	0	0	0	0	0	0	**66**
12:00 PM	0	1	4	10	36	19	4	1	0	0	0	0	0	0	0	0	0	**75**
1:00 PM	0	2	6	25	35	22	4	1	0	0	0	0	0	0	0	0	0	**95**
2:00 PM	0	0	3	21	22	11	4	0	0	0	0	0	0	0	0	0	0	**61**
3:00 PM	0	1	4	13	19	21	4	0	0	0	0	0	0	0	0	0	0	**62**
4:00 PM	0	0	2	15	22	22	4	0	0	0	0	0	0	0	0	0	0	**65**
5:00 PM	0	1	4	14	36	24	5	0	0	0	0	0	0	0	0	0	0	**84**
6:00 PM	0	0	0	12	31	29	5	0	0	0	0	0	0	0	0	0	0	**77**
7:00 PM	0	0	2	8	24	14	2	0	0	0	0	0	0	0	0	0	0	**50**
8:00 PM	0	0	0	16	29	15	1	0	0	0	0	0	0	0	0	0	0	**61**
9:00 PM	0	0	1	12	19	15	1	0	0	0	0	0	0	0	0	0	0	**48**
10:00 PM	0	0	0	12	17	16	4	1	0	0	0	0	0	0	0	0	0	**50**
11:00 PM	0	0	0	3	15	7	3	0	0	0	0	0	0	0	0	0	0	**28**
Total	**0**	**10**	**42**	**249**	**503**	**303**	**58**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,169**
Percent	**0.0%**	**0.9%**	**3.6%**	**21.3%**	**43.0%**	**25.9%**	**5.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.6	mph	Mean (Average) Speed	27.7	mph
85th Percentile	32.4	mph	10 mph Pace	22.8 - 32.8	mph
95th Percentile	35.2	mph	Percent in Pace	72.8	%

Mark Skaggs:425-250-0777
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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Wednesday, April 27, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	1	1	5	6	2	0	0	0	0	0	0	0	0	0	0	**15**
6:00 AM	0	0	0	7	10	7	2	0	0	0	0	0	0	0	0	0	0	**26**
7:00 AM	0	0	0	17	29	22	6	0	0	0	0	0	0	0	0	0	0	**74**
8:00 AM	0	0	4	10	32	20	1	0	0	0	0	0	0	0	0	0	0	**67**
9:00 AM	0	0	3	22	18	15	1	1	0	0	0	0	0	0	0	0	0	**60**
10:00 AM	0	1	1	20	19	7	3	0	0	0	0	0	0	0	0	0	0	**51**
11:00 AM	0	1	4	18	38	11	0	0	0	0	0	0	0	0	0	0	0	**72**
12:00 PM	0	0	4	36	52	14	3	0	0	0	0	0	0	0	0	0	0	**109**
1:00 PM	0	0	6	25	26	15	3	0	0	0	0	0	0	0	0	0	0	**75**
2:00 PM	0	0	4	26	54	20	6	1	1	0	0	0	0	0	0	0	0	**112**
3:00 PM	0	1	2	29	32	16	4	0	0	0	0	0	0	0	0	0	0	**84**
4:00 PM	0	0	0	26	31	17	1	1	0	0	0	0	0	0	0	0	0	**76**
5:00 PM	1	1	5	24	42	13	0	0	0	0	0	0	0	0	0	0	0	**86**
6:00 PM	0	0	2	21	29	20	4	0	0	0	0	0	0	0	0	0	0	**76**
7:00 PM	0	0	0	15	16	14	1	0	0	0	0	0	0	0	0	0	0	**46**
8:00 PM	0	1	1	8	19	10	2	0	0	0	0	0	0	0	0	0	0	**41**
9:00 PM	0	0	1	10	16	11	1	0	0	0	0	0	0	0	0	0	0	**39**
10:00 PM	0	1	1	10	26	9	1	0	0	0	0	0	0	0	0	0	0	**48**
11:00 PM	0	0	0	0	9	7	0	0	0	0	0	0	0	0	0	0	0	**16**
Total	**1**	**8**	**41**	**325**	**507**	**258**	**41**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,185**
Percent	**0.1%**	**0.7%**	**3.5%**	**27.4%**	**42.8%**	**21.8%**	**3.5%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.1	mph	Mean (Average) Speed	27.1	mph
85th Percentile	31.4	mph	10 mph Pace	22.0 - 32.0	mph
95th Percentile	34.4	mph	Percent in Pace	76.3	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Thursday, April 28, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	5	3	1	0	0	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	1	0	3	2	0	0	0	0	0	0	0	0	0	0	0	**6**
2:00 AM	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	**4**
6:00 AM	0	0	1	8	13	2	0	0	0	0	0	0	0	0	0	0	0	**24**
7:00 AM	0	0	6	14	19	9	0	0	0	0	0	0	0	0	0	0	0	**48**
8:00 AM	0	1	3	22	40	14	3	0	0	0	0	0	0	0	0	0	0	**83**
9:00 AM	0	0	2	18	44	29	4	0	0	0	0	0	0	0	0	0	0	**97**
10:00 AM	0	1	9	23	40	16	3	0	0	0	0	0	0	0	0	0	0	**92**
11:00 AM	0	1	4	16	27	11	1	0	0	0	0	0	0	0	0	0	0	**60**
12:00 PM	0	0	6	20	53	20	2	1	0	0	0	0	0	0	0	0	0	**102**
1:00 PM	0	0	8	30	35	18	4	1	0	0	0	0	0	0	0	0	0	**96**
2:00 PM	0	1	5	20	24	16	3	0	0	0	0	0	0	0	0	0	0	**69**
3:00 PM	0	0	7	32	40	31	2	0	0	0	0	0	0	0	0	0	0	**112**
4:00 PM	0	1	3	20	45	15	4	0	0	0	0	0	0	0	0	0	0	**88**
5:00 PM	0	1	4	12	26	22	4	0	0	0	0	0	0	0	0	0	0	**69**
6:00 PM	0	0	5	13	35	19	2	0	0	0	0	0	0	0	0	0	0	**74**
7:00 PM	1	0	7	17	28	24	2	0	0	0	0	0	0	0	0	0	0	**79**
8:00 PM	0	0	3	13	26	15	1	0	0	0	0	0	0	0	0	0	0	**58**
9:00 PM	0	0	2	9	22	10	2	0	0	0	0	0	0	0	0	0	0	**45**
10:00 PM	0	0	0	5	19	8	3	0	0	0	0	0	0	0	0	0	0	**35**
11:00 PM	0	0	1	5	3	13	0	1	0	0	0	0	0	0	0	0	0	**23**
Total	**1**	**7**	**79**	**303**	**551**	**299**	**41**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,284**
Percent	**0.1%**	**0.5%**	**6.2%**	**23.6%**	**42.9%**	**23.3%**	**3.2%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.2	mph	Mean (Average) Speed	27.2	mph
85th Percentile	31.8	mph	10 mph Pace	22.9 - 32.9	mph
95th Percentile	34.3	mph	Percent in Pace	73.1	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Thursday, April 28, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	1	4	1	1	0	0	0	0	0	0	0	0	0	0	**8**
1:00 AM	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	2	5	3	1	0	0	0	0	0	0	0	0	0	0	**11**
6:00 AM	0	0	3	7	10	2	1	0	0	0	0	0	0	0	0	0	0	**23**
7:00 AM	0	0	7	23	36	10	7	0	0	0	0	0	0	0	0	0	0	**83**
8:00 AM	0	0	5	35	46	11	2	0	0	0	0	0	0	0	0	0	0	**99**
9:00 AM	0	1	9	22	37	9	0	0	0	0	0	0	0	0	0	0	0	**78**
10:00 AM	0	0	10	35	36	14	1	0	0	0	0	0	0	0	0	0	0	**96**
11:00 AM	1	2	8	25	23	9	0	0	0	0	0	0	0	0	0	0	0	**68**
12:00 PM	0	1	10	47	35	8	1	1	0	0	0	0	0	0	0	0	0	**103**
1:00 PM	0	0	13	21	35	7	4	0	0	0	0	0	0	0	0	0	0	**80**
2:00 PM	0	0	7	24	36	8	5	0	0	0	0	0	0	0	0	0	0	**80**
3:00 PM	0	0	5	34	40	12	2	0	0	0	0	0	0	0	0	0	0	**93**
4:00 PM	0	0	7	29	36	5	1	1	0	0	0	0	0	0	0	0	0	**79**
5:00 PM	0	1	7	39	39	13	1	0	0	0	0	0	0	0	0	0	0	**100**
6:00 PM	0	0	9	24	30	13	2	0	0	0	0	0	0	0	0	0	0	**78**
7:00 PM	0	0	4	21	34	9	2	0	0	0	0	0	0	0	0	0	0	**70**
8:00 PM	0	0	1	17	24	12	0	0	0	0	0	0	0	0	0	0	0	**54**
9:00 PM	0	0	0	12	25	5	1	0	0	0	0	0	0	0	0	0	0	**43**
10:00 PM	0	0	0	6	10	7	1	1	0	0	0	0	0	0	0	0	0	**25**
11:00 PM	0	0	0	5	4	8	2	0	0	0	0	0	0	0	0	0	0	**19**
Total	**1**	**6**	**108**	**430**	**546**	**167**	**36**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,297**
Percent	**0.1%**	**0.5%**	**8.3%**	**33.2%**	**42.1%**	**12.9%**	**2.8%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	25.7	mph	Mean (Average) Speed	25.9	mph
85th Percentile	30.0	mph	10 mph Pace	20.2 - 30.2	mph
95th Percentile	33.2	mph	Percent in Pace	75.9	%

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Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Friday, April 29, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	3	4	1	1	0	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	1	5	0	1	0	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00 AM	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**3**
6:00 AM	0	0	1	4	8	4	0	0	0	0	0	0	0	0	0	0	0	**17**
7:00 AM	0	0	1	18	30	7	1	1	0	0	0	0	0	0	0	0	0	**58**
8:00 AM	0	0	5	18	43	25	0	0	0	0	0	0	0	0	0	0	0	**91**
9:00 AM	0	2	6	21	41	21	3	0	0	0	0	0	0	0	0	0	0	**94**
10:00 AM	0	0	16	33	65	17	2	0	0	0	0	0	0	0	0	0	0	**133**
11:00 AM	0	1	6	12	16	12	2	0	0	0	0	0	0	0	0	0	0	**49**
12:00 PM	0	1	1	22	45	16	2	0	0	0	0	0	0	0	0	0	0	**87**
1:00 PM	0	1	6	18	42	22	1	0	0	0	0	0	0	0	0	0	0	**90**
2:00 PM	0	0	5	24	32	21	1	0	0	0	0	0	0	0	0	0	0	**83**
3:00 PM	0	0	1	17	21	22	7	1	0	0	0	0	0	0	0	0	0	**69**
4:00 PM	0	0	7	8	25	16	6	1	0	0	0	0	0	0	0	0	0	**63**
5:00 PM	0	0	2	12	21	25	7	0	0	0	0	0	0	0	0	0	0	**67**
6:00 PM	0	0	0	12	30	24	3	2	0	0	0	0	0	0	0	0	0	**71**
7:00 PM	0	0	4	15	19	12	1	1	0	0	0	0	0	0	0	0	0	**52**
8:00 PM	0	0	3	11	10	9	3	0	0	0	0	0	0	0	0	0	0	**36**
9:00 PM	0	0	0	13	20	10	2	0	0	0	0	0	0	0	0	0	0	**45**
10:00 PM	0	0	0	12	25	12	1	0	0	0	0	0	0	0	0	0	0	**50**
11:00 PM	0	0	0	9	9	7	0	0	0	0	0	0	0	0	0	0	0	**25**
Total	**0**	**5**	**65**	**283**	**516**	**289**	**44**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,209**
Percent	**0.0%**	**0.4%**	**5.4%**	**23.4%**	**42.7%**	**23.9%**	**3.6%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.3	mph	Mean (Average) Speed	27.4	mph
85th Percentile	32.0	mph	10 mph Pace	22.7 - 32.7	mph
95th Percentile	34.6	mph	Percent in Pace	72.5	%

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Site Code: 01

Friday, April 29, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	**4**
5:00 AM	0	0	0	0	3	4	2	0	0	0	0	0	0	0	0	0	0	**9**
6:00 AM	0	0	1	2	8	8	1	0	0	0	0	0	0	0	0	0	0	**20**
7:00 AM	0	0	3	10	23	19	4	0	0	0	0	0	0	0	0	0	0	**59**
8:00 AM	0	0	5	24	36	17	1	0	0	0	0	0	0	0	0	0	0	**83**
9:00 AM	0	0	2	19	26	11	3	1	0	0	0	0	0	0	0	0	0	**62**
10:00 AM	0	0	3	22	29	10	1	0	0	0	0	0	0	0	0	0	0	**65**
11:00 AM	0	2	12	56	39	13	1	0	0	0	0	0	0	0	0	0	0	**123**
12:00 PM	0	1	10	46	53	16	0	0	0	0	0	0	0	0	0	0	0	**126**
1:00 PM	0	0	2	33	53	22	1	0	0	0	0	0	0	0	0	0	0	**111**
2:00 PM	0	0	5	22	49	18	2	0	0	0	0	0	0	0	0	0	0	**96**
3:00 PM	0	0	3	17	39	25	3	0	0	0	0	0	0	0	0	0	0	**87**
4:00 PM	0	1	4	11	28	21	4	0	0	0	0	0	0	0	0	0	0	**69**
5:00 PM	0	0	2	17	42	18	1	1	0	0	0	0	0	0	0	0	0	**81**
6:00 PM	0	0	3	8	29	8	3	0	0	0	0	0	0	0	0	0	0	**51**
7:00 PM	0	0	3	10	21	6	1	0	0	0	0	0	0	0	0	0	0	**41**
8:00 PM	0	0	1	7	13	10	1	0	0	0	0	0	0	0	0	0	0	**32**
9:00 PM	0	0	6	21	29	2	1	0	0	0	0	0	0	0	0	0	0	**59**
10:00 PM	0	0	0	3	15	6	3	0	0	0	0	0	0	0	0	0	0	**27**
11:00 PM	0	0	0	4	9	5	0	0	0	0	0	0	0	0	0	0	0	**18**
Total	**0**	**4**	**65**	**335**	**547**	**244**	**33**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,231**
Percent	**0.0%**	**0.3%**	**5.3%**	**27.2%**	**44.4%**	**19.8%**	**2.7%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	26.6	mph	Mean (Average) Speed	26.9	mph
85th Percentile	31.3	mph	10 mph Pace	22.0 - 32.0	mph
95th Percentile	33.9	mph	Percent in Pace	74.9	%

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

Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Saturday, April 30, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	4	6	5	2	0	0	0	0	0	0	0	0	0	0	**17**
1:00 AM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	1	4	1	1	1	0	0	0	0	0	0	0	0	0	**8**
3:00 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
6:00 AM	0	0	0	1	2	1	2	0	0	0	0	0	0	0	0	0	0	**6**
7:00 AM	0	0	4	11	11	3	1	0	0	0	0	0	0	0	0	0	0	**30**
8:00 AM	0	0	4	18	29	15	4	0	0	0	0	0	0	0	0	0	0	**70**
9:00 AM	0	0	2	16	18	3	2	1	0	0	0	0	0	0	0	0	0	**42**
10:00 AM	1	0	4	9	18	8	0	0	0	0	0	0	0	0	0	0	0	**40**
11:00 AM	0	0	0	6	20	15	5	0	0	0	0	0	0	0	0	0	0	**46**
12:00 PM	0	0	1	11	21	18	4	0	0	0	0	0	0	0	0	0	0	**55**
1:00 PM	0	1	6	10	16	19	4	0	0	0	0	0	0	0	0	0	0	**56**
2:00 PM	0	0	3	8	19	17	5	0	0	0	0	0	0	0	0	0	0	**52**
3:00 PM	0	2	3	5	14	16	7	1	0	0	0	0	0	0	0	0	0	**48**
4:00 PM	0	0	1	8	22	10	5	0	0	0	0	0	0	0	0	0	0	**46**
5:00 PM	0	0	2	4	20	14	4	0	0	0	0	0	0	0	0	0	0	**44**
6:00 PM	0	0	1	7	14	18	2	1	0	0	0	0	0	0	0	0	0	**43**
7:00 PM	0	0	1	7	12	16	4	0	0	0	0	0	0	0	0	0	0	**40**
8:00 PM	0	0	1	9	25	8	2	0	0	0	0	0	0	0	0	0	0	**45**
9:00 PM	0	0	1	10	21	12	3	0	0	0	0	0	0	0	0	0	0	**47**
10:00 PM	0	0	2	6	17	11	2	0	0	0	0	0	0	0	0	0	0	**38**
11:00 PM	0	0	1	3	19	13	0	0	0	0	0	0	0	0	0	0	0	**36**
Total	**1**	**3**	**38**	**156**	**332**	**227**	**59**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**821**
Percent	**0.1%**	**0.4%**	**4.6%**	**19.0%**	**40.4%**	**27.6%**	**7.2%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.2	mph	Mean (Average) Speed	28.2	mph
85th Percentile	33.3	mph	10 mph Pace	23.7 - 33.7	mph
95th Percentile	36.3	mph	Percent in Pace	70.6	%

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

Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Saturday, April 30, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	**4**
1:00 AM	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	**7**
2:00 AM	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	**5**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	**3**
5:00 AM	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	**4**
6:00 AM	0	0	0	0	4	3	2	0	0	0	0	0	0	0	0	0	0	**9**
7:00 AM	0	0	0	7	11	6	0	0	0	0	0	0	0	0	0	0	0	**24**
8:00 AM	0	0	3	7	25	19	5	0	0	0	0	0	0	0	0	0	0	**59**
9:00 AM	0	1	4	10	31	8	1	0	0	0	0	0	0	0	0	0	0	**55**
10:00 AM	0	4	4	12	23	22	0	0	0	0	0	0	0	0	0	0	0	**65**
11:00 AM	0	0	3	10	34	10	3	0	0	0	0	0	0	0	0	0	0	**60**
12:00 PM	0	1	2	13	36	22	2	1	0	0	0	0	0	0	0	0	0	**77**
1:00 PM	0	0	0	12	32	17	1	1	0	0	0	0	0	0	0	0	0	**63**
2:00 PM	0	0	2	11	23	14	0	0	0	0	0	0	0	0	0	0	0	**50**
3:00 PM	0	0	1	7	22	24	4	0	0	0	0	0	0	0	0	0	0	**58**
4:00 PM	0	0	1	9	20	19	3	0	0	0	0	0	0	0	0	0	0	**52**
5:00 PM	0	0	0	2	28	15	6	0	0	0	0	0	0	0	0	0	0	**51**
6:00 PM	0	0	1	3	23	16	4	0	0	0	0	0	0	0	0	0	0	**47**
7:00 PM	0	0	3	11	11	8	0	0	0	0	0	0	0	0	0	0	0	**33**
8:00 PM	0	0	1	7	15	5	0	0	0	0	0	0	0	0	0	0	0	**28**
9:00 PM	0	0	2	6	13	5	1	0	0	0	0	0	0	0	0	0	0	**27**
10:00 PM	0	0	3	3	11	4	1	0	0	0	0	0	0	0	0	0	0	**22**
11:00 PM	0	0	1	2	6	7	0	0	0	0	0	0	0	0	0	0	0	**16**
Total	**0**	**6**	**32**	**135**	**381**	**228**	**35**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**819**
Percent	**0.0%**	**0.7%**	**3.9%**	**16.5%**	**46.5%**	**27.8%**	**4.3%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.2	mph	Mean (Average) Speed	28.1	mph
85th Percentile	32.4	mph	10 mph Pace	23.6 - 33.6	mph
95th Percentile	34.8	mph	Percent in Pace	75.8	%

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

Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Sunday, May 1, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	4	4	1	2	0	0	0	0	0	0	0	0	0	**12**
1:00 AM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
5:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
6:00 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
7:00 AM	0	0	0	2	4	4	1	0	0	0	0	0	0	0	0	0	0	**11**
8:00 AM	0	0	0	1	12	3	0	0	0	0	0	0	0	0	0	0	0	**16**
9:00 AM	0	0	0	4	16	5	0	0	0	0	0	0	0	0	0	0	0	**25**
10:00 AM	0	0	3	4	22	10	1	0	0	0	0	0	0	0	0	0	0	**40**
11:00 AM	1	0	4	7	18	15	2	0	0	0	0	0	0	0	0	0	0	**47**
12:00 PM	0	0	2	10	28	15	4	0	0	0	0	0	0	0	0	0	0	**59**
1:00 PM	1	0	1	8	28	26	9	0	0	0	0	0	0	0	0	0	0	**73**
2:00 PM	0	0	2	1	16	18	0	1	0	0	0	0	0	0	0	0	0	**38**
3:00 PM	0	0	0	2	19	19	7	1	0	0	0	0	0	0	0	0	0	**48**
4:00 PM	0	0	2	4	15	21	5	1	0	0	0	0	0	0	0	0	0	**48**
5:00 PM	0	1	1	6	13	23	2	3	0	0	0	0	0	0	0	0	0	**49**
6:00 PM	0	1	1	4	22	27	4	0	0	0	0	0	0	0	0	0	0	**59**
7:00 PM	0	0	1	9	24	18	2	0	0	0	0	0	0	0	0	0	0	**54**
8:00 PM	0	0	0	10	22	19	3	0	0	0	0	0	0	0	0	0	0	**54**
9:00 PM	0	0	0	8	19	14	0	0	0	0	0	0	0	0	0	0	0	**41**
10:00 PM	0	0	1	8	6	4	2	0	0	0	0	0	0	0	0	0	0	**21**
11:00 PM	0	0	0	0	8	6	2	1	0	0	0	0	0	0	0	0	0	**17**
Total	**2**	**2**	**19**	**91**	**297**	**256**	**46**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**722**
Percent	**0.3%**	**0.3%**	**2.6%**	**12.6%**	**41.1%**	**35.5%**	**6.4%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.1	mph	Mean (Average) Speed	29.1	mph
85th Percentile	33.5	mph	10 mph Pace	24.7 - 34.7	mph
95th Percentile	36.2	mph	Percent in Pace	76.7	%

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

Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Sunday, May 1, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	6	3	1	0	0	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	**2**
4:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
6:00 AM	0	0	1	0	7	5	0	0	0	0	0	0	0	0	0	0	0	**13**
7:00 AM	1	0	0	2	5	7	1	0	0	0	0	0	0	0	0	0	0	**16**
8:00 AM	0	0	1	0	20	12	4	0	0	0	0	0	0	0	0	0	0	**37**
9:00 AM	0	0	0	7	20	18	6	0	0	0	0	0	0	0	0	0	0	**51**
10:00 AM	0	0	3	7	28	14	6	0	0	0	0	0	0	0	0	0	0	**58**
11:00 AM	0	0	0	6	11	17	2	0	0	0	0	0	0	0	0	0	0	**36**
12:00 PM	0	0	5	18	36	15	0	0	1	0	0	0	0	0	0	0	0	**75**
1:00 PM	1	0	1	9	27	20	5	0	0	0	0	0	0	0	0	0	0	**63**
2:00 PM	0	1	1	9	13	12	6	0	0	0	0	0	0	0	0	0	0	**42**
3:00 PM	0	0	0	5	13	16	3	0	0	0	0	0	0	0	0	0	0	**37**
4:00 PM	0	0	2	5	22	21	4	0	0	0	0	0	0	0	0	0	0	**54**
5:00 PM	0	0	1	6	12	17	5	0	0	0	0	0	0	0	0	0	0	**41**
6:00 PM	0	0	0	4	30	22	1	1	0	0	0	0	0	0	0	0	0	**58**
7:00 PM	0	0	0	6	25	18	1	0	0	0	0	0	0	0	0	0	0	**50**
8:00 PM	0	0	1	6	11	5	0	0	0	0	0	0	0	0	0	0	0	**23**
9:00 PM	0	1	0	6	7	9	2	0	0	0	0	0	0	0	0	0	0	**25**
10:00 PM	0	0	1	5	8	6	1	1	0	0	0	0	0	0	0	0	0	**22**
11:00 PM	0	0	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0	**9**
Total	**2**	**2**	**17**	**103**	**309**	**244**	**49**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**729**
Percent	**0.3%**	**0.3%**	**2.3%**	**14.1%**	**42.4%**	**33.5%**	**6.7%**	**0.3%**	**0.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	29.0	mph	Mean (Average) Speed	28.9	mph
85th Percentile	32.8	mph	10 mph Pace	23.9 - 33.9	mph
95th Percentile	35.5	mph	Percent in Pace	78.5	%

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

Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Monday, May 2, 2016
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	0	5	2	1	0	0	0	0	0	0	0	0	0	0	**9**
1:00 AM	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	1	3	1	0	0	1	0	0	0	0	0	0	0	0	0	**6**
4:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	3	3	0	1	0	0	0	0	0	0	0	0	0	0	**7**
6:00 AM	0	0	1	3	7	3	0	0	0	0	0	0	0	0	0	0	0	**14**
7:00 AM	0	0	2	13	24	5	2	0	0	0	0	0	0	0	0	0	0	**46**
8:00 AM	0	0	3	8	21	16	2	0	0	0	0	0	0	0	0	0	0	**50**
9:00 AM	1	0	3	9	32	22	3	1	0	0	0	0	0	0	0	0	0	**71**
10:00 AM	0	1	3	12	35	20	4	0	0	0	0	0	0	0	0	0	0	**75**
11:00 AM	0	0	1	12	23	15	4	0	0	0	0	0	0	0	0	0	0	**55**
12:00 PM	3	4	5	10	32	23	1	1	0	0	0	0	0	0	0	0	0	**79**
1:00 PM	0	0	5	16	39	17	1	0	0	0	0	0	0	0	0	0	0	**78**
2:00 PM	0	0	5	15	27	15	6	1	0	0	0	0	0	0	0	0	0	**69**
3:00 PM	0	1	7	20	31	21	4	0	0	0	0	0	0	0	0	0	0	**84**
4:00 PM	0	0	0	11	33	31	4	1	0	0	0	0	0	0	0	0	0	**80**
5:00 PM	1	0	1	6	27	44	11	1	0	0	0	0	0	0	0	0	0	**91**
6:00 PM	0	0	0	11	25	31	8	1	0	0	0	0	0	0	0	0	0	**76**
7:00 PM	0	1	3	11	27	18	2	0	0	0	0	0	0	0	0	0	0	**62**
8:00 PM	0	0	1	6	27	20	4	1	0	0	0	0	0	0	0	0	0	**59**
9:00 PM	0	1	0	3	18	11	0	0	0	0	0	0	0	0	0	0	0	**33**
10:00 PM	0	0	3	3	13	14	2	0	0	0	0	0	0	0	0	0	0	**35**
11:00 PM	0	0	1	2	9	2	5	0	0	0	0	0	0	0	0	0	0	**19**
Total	**5**	**8**	**46**	**179**	**461**	**332**	**65**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,104**
Percent	**0.5%**	**0.7%**	**4.2%**	**16.2%**	**41.8%**	**30.1%**	**5.9%**	**0.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	28.6	mph	Mean (Average) Speed	28.3	mph
85th Percentile	32.9	mph	10 mph Pace	23.6 - 33.6	mph
95th Percentile	35.7	mph	Percent in Pace	73.6	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Monday, May 2, 2016
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**
1:00 AM	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	**5**
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
5:00 AM	0	0	0	2	4	2	2	0	0	0	0	0	0	0	0	0	0	**10**
6:00 AM	0	0	0	2	11	9	1	0	0	0	0	0	0	0	0	0	0	**23**
7:00 AM	0	1	1	14	22	15	6	0	0	0	0	0	0	0	0	0	0	**59**
8:00 AM	0	0	1	13	32	23	2	0	0	0	0	0	0	0	0	0	0	**71**
9:00 AM	0	0	1	11	23	10	3	0	0	0	0	0	0	0	0	0	0	**48**
10:00 AM	0	1	0	10	24	11	3	0	0	0	0	0	0	0	0	0	0	**49**
11:00 AM	0	0	3	19	35	23	4	0	0	0	0	0	0	0	0	0	0	**84**
12:00 PM	0	2	0	14	39	23	5	0	0	0	0	0	0	0	0	0	0	**83**
1:00 PM	0	1	4	17	26	21	2	0	0	0	0	0	0	0	0	0	0	**71**
2:00 PM	0	0	1	21	48	25	5	0	0	0	0	0	0	0	0	0	0	**100**
3:00 PM	0	0	7	11	33	26	1	0	0	0	0	0	0	0	0	0	0	**78**
4:00 PM	0	1	5	15	42	26	4	0	0	0	0	0	0	0	0	0	0	**93**
5:00 PM	0	0	0	11	31	31	4	2	0	0	0	0	0	0	0	0	0	**79**
6:00 PM	0	0	1	14	32	18	2	0	0	0	0	0	0	0	0	0	0	**67**
7:00 PM	0	3	2	11	25	6	5	0	0	0	0	0	0	0	0	0	0	**52**
8:00 PM	0	0	3	12	11	7	3	1	0	0	0	0	0	0	0	0	0	**37**
9:00 PM	0	0	2	8	17	12	2	1	0	0	0	0	0	0	0	0	0	**42**
10:00 PM	0	0	1	5	16	6	2	0	0	0	0	0	0	0	0	0	0	**30**
11:00 PM	0	0	2	3	7	4	1	0	0	0	0	0	0	0	0	0	0	**17**
Total	**0**	**9**	**34**	**215**	**483**	**299**	**57**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,101**
Percent	**0.0%**	**0.8%**	**3.1%**	**19.5%**	**43.9%**	**27.2%**	**5.2%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	27.8	mph	Mean (Average) Speed	28	mph
85th Percentile	32.3	mph	10 mph Pace	23.6 - 33.6	mph
95th Percentile	35.2	mph	Percent in Pace	76.1	%

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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Total Study Average
Eastbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	1	4	3	1	0	0	0	0	0	0	0	0	0	0	**10**
1:00 AM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	**3**
2:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**
3:00 AM	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	**4**
4:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	**4**
6:00 AM	0	0	1	5	7	4	1	0	0	0	0	0	0	0	0	0	0	**18**
7:00 AM	0	0	2	11	20	7	1	0	0	0	0	0	0	0	0	0	0	**41**
8:00 AM	0	0	3	14	31	16	2	0	0	0	0	0	0	0	0	0	0	**66**
9:00 AM	0	0	3	14	32	18	2	0	0	0	0	0	0	0	0	0	0	**69**
10:00 AM	0	0	6	16	36	14	3	0	0	0	0	0	0	0	0	0	0	**75**
11:00 AM	0	0	3	12	23	14	3	0	0	0	0	0	0	0	0	0	0	**55**
12:00 PM	0	1	3	13	35	20	3	1	0	0	0	0	0	0	0	0	0	**76**
1:00 PM	0	1	5	18	30	20	3	0	0	0	0	0	0	0	0	0	0	**77**
2:00 PM	0	0	4	14	22	16	3	0	0	0	0	0	0	0	0	0	0	**59**
3:00 PM	0	1	3	15	25	22	5	0	0	0	0	0	0	0	0	0	0	**71**
4:00 PM	0	0	2	11	27	20	5	0	0	0	0	0	0	0	0	0	0	**65**
5:00 PM	0	0	2	9	26	25	6	1	0	0	0	0	0	0	0	0	0	**69**
6:00 PM	0	0	1	11	30	25	4	1	0	0	0	0	0	0	0	0	0	**72**
7:00 PM	0	0	3	11	23	17	2	0	0	0	0	0	0	0	0	0	0	**56**
8:00 PM	0	0	1	11	23	14	2	0	0	0	0	0	0	0	0	0	0	**51**
9:00 PM	0	0	1	10	20	12	2	0	0	0	0	0	0	0	0	0	0	**45**
10:00 PM	0	0	1	7	15	11	2	0	0	0	0	0	0	0	0	0	0	**36**
11:00 PM	0	0	1	4	10	7	2	0	0	0	0	0	0	0	0	0	0	**24**
Total	**0**	**3**	**48**	**211**	**445**	**288**	**52**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,050**
Percent	**0.0%**	**0.3%**	**4.6%**	**20.1%**	**42.4%**	**27.4%**	**5.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	28.0	mph	Mean (Average) Speed	27.9	mph
85th Percentile	32.5	mph	10 mph Pace	23.3 - 33.3	mph
95th Percentile	35.3	mph	Percent in Pace	72.3	%

Mark Skaggs:425-250-0777
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Location: NE 53RD ST E/O 111TH AVE NE
Date Range: 4/26/2016 to 5/2/2016
Site Code: 01

Total Study Average
Westbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	3	2	0	0	0	0	0	0	0	0	0	0	0	**6**
1:00 AM	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	**4**
2:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
4:00 AM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	**2**
5:00 AM	0	0	0	1	3	3	1	0	0	0	0	0	0	0	0	0	0	**8**
6:00 AM	0	0	1	3	9	6	1	0	0	0	0	0	0	0	0	0	0	**20**
7:00 AM	0	0	2	13	22	15	4	0	0	0	0	0	0	0	0	0	0	**56**
8:00 AM	0	0	4	15	31	16	2	0	0	0	0	0	0	0	0	0	0	**68**
9:00 AM	0	0	3	15	25	13	3	0	0	0	0	0	0	0	0	0	0	**59**
10:00 AM	0	1	3	18	27	14	2	0	0	0	0	0	0	0	0	0	0	**65**
11:00 AM	0	1	4	21	29	15	2	0	0	0	0	0	0	0	0	0	0	**72**
12:00 PM	0	1	5	29	41	16	2	0	0	0	0	0	0	0	0	0	0	**94**
1:00 PM	0	1	4	20	32	17	3	0	0	0	0	0	0	0	0	0	0	**77**
2:00 PM	0	0	3	18	37	17	4	0	0	0	0	0	0	0	0	0	0	**79**
3:00 PM	0	0	3	18	32	20	3	0	0	0	0	0	0	0	0	0	0	**76**
4:00 PM	0	0	3	16	31	18	3	0	0	0	0	0	0	0	0	0	0	**71**
5:00 PM	0	0	3	17	32	18	3	0	0	0	0	0	0	0	0	0	0	**73**
6:00 PM	0	0	3	13	27	16	3	0	0	0	0	0	0	0	0	0	0	**62**
7:00 PM	0	0	2	13	23	10	2	0	0	0	0	0	0	0	0	0	0	**50**
8:00 PM	0	0	2	11	17	8	1	0	0	0	0	0	0	0	0	0	0	**39**
9:00 PM	0	0	2	11	19	8	1	0	0	0	0	0	0	0	0	0	0	**41**
10:00 PM	0	0	1	5	13	6	2	0	0	0	0	0	0	0	0	0	0	**27**
11:00 PM	0	0	0	3	7	6	1	0	0	0	0	0	0	0	0	0	0	**17**
Total	**0**	**4**	**48**	**262**	**464**	**246**	**43**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,067**
Percent	**0.0%**	**0.4%**	**4.5%**	**24.6%**	**43.5%**	**23.1%**	**4.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	27.3	mph	Mean (Average) Speed	27.3	mph
85th Percentile	31.8	mph	10 mph Pace	22.5 - 32.5	mph
95th Percentile	34.5	mph	Percent in Pace	74.1	%

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Appendix C: LOS Definitions

Highway Capacity Manual 2010

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* (Transportation Research Board, 2010).

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*, Transportation Research Board, 2010.

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*, Transportation Research Board, 2010.

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 D: LOS Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	360	100	290	475	120	50	75	75	185	180	50
Future Volume (veh/h)	30	360	100	290	475	120	50	75	75	185	180	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1810	1810	1900	1827	1827	1827	1845	1845	1900
Adj Flow Rate, veh/h	32	383	106	309	505	128	53	80	80	197	191	53
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	4	4	4	5	5	5	4	4	4	3	3	3
Cap, veh/h	61	624	171	160	786	198	88	252	353	163	249	69
Arrive On Green	0.04	0.23	0.23	0.09	0.29	0.29	0.05	0.14	0.14	0.09	0.18	0.18
Sat Flow, veh/h	1740	2688	735	1723	2716	685	1740	1827	1519	1757	1385	384
Grp Volume(v), veh/h	32	246	243	309	319	314	53	80	80	197	0	244
Grp Sat Flow(s),veh/h/ln	1740	1736	1688	1723	1719	1682	1740	1827	1519	1757	0	1769
Q Serve(g_s), s	1.0	6.8	7.0	5.0	8.7	8.8	1.6	2.1	2.3	5.0	0.0	7.1
Cycle Q Clear(g_c), s	1.0	6.8	7.0	5.0	8.7	8.8	1.6	2.1	2.3	5.0	0.0	7.1
Prop In Lane	1.00		0.44	1.00		0.41	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	61	403	392	160	498	487	88	252	353	163	0	318
V/C Ratio(X)	0.52	0.61	0.62	1.94	0.64	0.65	0.60	0.32	0.23	1.21	0.00	0.77
Avail Cap(c_a), veh/h	161	707	688	160	701	686	193	643	679	163	0	459
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	0.00	1.00
Uniform Delay (d), s/veh	25.6	18.5	18.6	24.5	16.7	16.8	25.1	21.0	16.9	24.5	0.0	21.1
Incr Delay (d2), s/veh	2.5	0.6	0.6	443.1	0.5	0.5	2.4	0.3	0.1	138.2	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	0.5	3.3	3.3	22.0	4.1	4.1	0.8	1.1	1.0	8.6	0.0	3.7
LnGrp Delay(d),s/veh	28.1	19.1	19.2	467.6	17.2	17.3	27.5	21.2	17.0	162.7	0.0	23.6
LnGrp LOS	C	B	B	F	B	B	C	C	B	F		C
Approach Vol, veh/h		521			942			213			441	
Approach Delay, s/veh		19.7			165.0			21.2			85.7	
Approach LOS		B			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	21.6	11.0	13.4	11.0	18.5	8.7	15.7
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 22	5.0	19.0	* 5	* 22	6.0	14.0
Max Q Clear Time (g_c+I1), s	3.0	10.8	7.0	4.3	7.0	9.0	3.6	9.1
Green Ext Time (p_c), s	0.0	3.0	0.0	0.9	0.0	3.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	98.2
HCM 2010 LOS	F

Notes

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	50	100	55	0	75	165	30	0	55	145	20	0	30	265	60
Future Vol, veh/h	0	50	100	55	0	75	165	30	0	55	145	20	0	30	265	60
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	0.92	0.92	0.92	0.92
Heavy Vehicles, %	6	6	6	6	1	1	1	1	12	12	12	12	5	5	5	5
Mvmt Flow	0	54	109	60	0	82	179	33	0	60	158	22	0	33	288	65
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	14.4	16.8	15.5	20.5
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	25%	24%	28%	100%	0%
Vol Thru, %	66%	49%	61%	0%	82%
Vol Right, %	9%	27%	11%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	220	205	270	30	325
LT Vol	55	50	75	30	0
Through Vol	145	100	165	0	265
RT Vol	20	55	30	0	60
Lane Flow Rate	239	223	293	33	353
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.454	0.414	0.531	0.066	0.656
Departure Headway (Hd)	6.84	6.687	6.517	7.327	6.685
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	524	537	552	488	540
Service Time	4.908	4.753	4.578	5.085	4.442
HCM Lane V/C Ratio	0.456	0.415	0.531	0.068	0.654
HCM Control Delay	15.5	14.4	16.8	10.6	21.4
HCM Lane LOS	C	B	C	B	C
HCM 95th-tile Q	2.3	2	3.1	0.2	4.7

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	5	60	0	15	5	460	25	5	435	0
Future Vol, veh/h	0	0	5	60	0	15	5	460	25	5	435	0
Conflicting Peds, #/hr	20	0	30	41	0	31	30	0	41	31	0	20
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	100	100	4	4	4	5	5	5	6	6	6
Mvmt Flow	0	0	6	71	0	18	6	541	29	6	512	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1161	1177	583	1176	1163	628	542	0	0	612	0	0
Stage 1	554	554	-	609	609	-	-	-	-	-	-	-
Stage 2	607	623	-	567	554	-	-	-	-	-	-	-
Critical Hdwy	8.1	7.5	7.2	7.14	6.54	6.24	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	7.1	6.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	6.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.9	4.2	3.536	4.036	3.336	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	112	127	368	167	193	479	1012	-	-	948	-	0
Stage 1	378	385	-	479	482	-	-	-	-	-	-	0
Stage 2	350	354	-	505	511	-	-	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	100	117	344	150	178	447	972	-	-	920	-	-
Mov Cap-2 Maneuver	100	117	-	150	178	-	-	-	-	-	-	-
Stage 1	365	372	-	457	460	-	-	-	-	-	-	-
Stage 2	324	338	-	474	493	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	45.7	0.1	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	972	-	-	344	173	920	-
HCM Lane V/C Ratio	0.006	-	-	0.017	0.51	0.006	-
HCM Control Delay (s)	8.7	-	-	15.6	45.7	8.9	-
HCM Lane LOS	A	-	-	C	E	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.5	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	240	5	15	240	140	5	5	15	255	5	155
Future Volume (veh/h)	65	240	5	15	240	140	5	5	15	255	5	155
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.96		0.95	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1845	1845	1845	1900	1610	1900	1900	1845	1845
Adj Flow Rate, veh/h	74	273	6	17	273	159	6	6	17	290	6	176
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	3	3	3	18	18	18	3	3	3
Cap, veh/h	146	755	17	38	667	400	140	110	202	0	473	374
Arrive On Green	0.08	0.42	0.42	0.02	0.36	0.36	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	1740	1779	39	1757	1845	1538	127	430	789	0	1845	1459
Grp Volume(v), veh/h	74	0	279	17	273	159	29	0	0	0	6	176
Grp Sat Flow(s),veh/h/ln	1740	0	1818	1757	1845	1538	1345	0	0	0	1845	1459
Q Serve(g_s), s	1.6	0.0	4.2	0.4	4.5	7.5	0.0	0.0	0.0	0.0	0.1	4.1
Cycle Q Clear(g_c), s	1.6	0.0	4.2	0.4	4.5	7.5	0.6	0.0	0.0	0.0	0.1	4.1
Prop In Lane	1.00		0.02	1.00		1.00	0.21		0.59	0.00		1.00
Lane Grp Cap(c), veh/h	146	0	771	38	667	400	453	0	0	0	473	374
V/C Ratio(X)	0.51	0.00	0.36	0.45	0.41	0.40	0.06	0.00	0.00	0.00	0.01	0.47
Avail Cap(c_a), veh/h	908	0	1807	218	1100	761	474	0	0	0	963	762
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	7.9	19.5	9.6	43.2	11.4	0.0	0.0	0.0	11.2	12.7
Incr Delay (d2), s/veh	2.7	0.0	0.3	8.2	0.4	0.6	0.1	0.0	0.0	0.0	0.0	0.9
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	0.9	0.0	2.2	0.3	2.3	3.3	0.2	0.0	0.0	0.0	0.1	1.7
LnGrp Delay(d),s/veh	20.3	0.0	8.2	27.6	10.0	43.8	11.4	0.0	0.0	0.0	11.2	13.6
LnGrp LOS	C		A	C	B	D	B				B	B
Approach Vol, veh/h		353			449			29			182	
Approach Delay, s/veh		10.7			22.7			11.4			13.5	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	18.6	0.0	14.3	4.9	21.1		14.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	24.0	6.0	11.0	5.0	40.0		21.0
Max Q Clear Time (g_c+I1), s	3.6	9.5	0.0	2.6	2.4	6.2		6.1
Green Ext Time (p_c), s	0.1	3.4	0.0	0.5	0.0	4.3		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	330	165	285	305	235	90	155	140	95	285	95
Future Volume (veh/h)	95	330	165	285	305	235	90	155	140	95	285	95
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1810	1810	1810	1810	1810	1900
Adj Flow Rate, veh/h	107	371	185	320	343	264	101	174	157	107	320	107
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	131	666	651	251	797	769	123	459	599	130	332	111
Arrive On Green	0.08	0.36	0.36	0.14	0.43	0.43	0.07	0.25	0.25	0.08	0.26	0.26
Sat Flow, veh/h	1740	1827	1481	1757	1845	1504	1723	1810	1493	1723	1287	430
Grp Volume(v), veh/h	107	371	185	320	343	264	101	174	157	107	0	427
Grp Sat Flow(s),veh/h/ln	1740	1827	1481	1757	1845	1504	1723	1810	1493	1723	0	1718
Q Serve(g_s), s	8.2	21.9	10.9	19.3	17.5	14.1	7.8	10.7	9.6	8.3	0.0	33.1
Cycle Q Clear(g_c), s	8.2	21.9	10.9	19.3	17.5	14.1	7.8	10.7	9.6	8.3	0.0	33.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	131	666	651	251	797	769	123	459	599	130	0	443
V/C Ratio(X)	0.81	0.56	0.28	1.27	0.43	0.34	0.82	0.38	0.26	0.82	0.00	0.96
Avail Cap(c_a), veh/h	313	666	651	251	797	769	183	459	599	246	0	443
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	0.00	1.00
Uniform Delay (d), s/veh	61.5	34.2	24.5	57.9	26.7	19.8	61.8	41.6	27.5	61.5	0.0	49.5
Incr Delay (d2), s/veh	11.4	3.3	1.1	150.6	1.7	1.2	16.5	0.5	0.2	11.8	0.0	33.6
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	4.4	11.6	4.6	19.9	9.2	6.1	4.3	5.4	4.0	4.4	0.0	19.9
LnGrp Delay(d),s/veh	72.9	37.5	25.6	208.5	28.4	21.0	78.3	42.1	27.7	73.3	0.0	83.1
LnGrp LOS	E	D	C	F	C	C	E	D	C	E		F
Approach Vol, veh/h		663			927			432			534	
Approach Delay, s/veh		39.9			88.5			45.3			81.1	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.9	63.8	15.9	39.4	25.0	54.6	15.4	40.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 14	34.6	* 19	* 25	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	10.2	19.5	10.3	12.7	21.3	23.9	9.8	35.1
Green Ext Time (p_c), s	0.2	5.5	0.1	3.5	0.0	6.3	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.0
HCM 2010 LOS	E

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	280	275	605	165	280	665
Future Volume (veh/h)	280	275	605	165	280	665
Number	7	14	6	16	5	2
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
Adj Sat Flow, veh/h/ln	1827	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	304	299	658	179	304	723
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	3	3
Cap, veh/h	208	204	752	639	365	1125
Arrive On Green	0.25	0.25	0.41	0.41	0.13	0.61
Sat Flow, veh/h	827	813	1845	1568	1757	1845
Grp Volume(v), veh/h	604	0	658	179	304	723
Grp Sat Flow(s),veh/h/ln	1642	0	1845	1568	1757	1845
Q Serve(g_s), s	20.0	0.0	26.1	6.1	7.7	20.0
Cycle Q Clear(g_c), s	20.0	0.0	26.1	6.1	7.7	20.0
Prop In Lane	0.50	0.50		1.00	1.00	
Lane Grp Cap(c), veh/h	413	0	752	639	365	1125
V/C Ratio(X)	1.46	0.00	0.88	0.28	0.83	0.64
Avail Cap(c_a), veh/h	413	0	789	670	451	1137
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	29.8	0.0	21.7	15.8	16.5	9.9
Incr Delay (d2), s/veh	221.0	0.0	10.5	0.2	10.5	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	34.3	0.0	15.3	6.3	4.8	10.4
LnGrp Delay(d),s/veh	250.8	0.0	32.2	16.0	27.0	11.2
LnGrp LOS	F		C	B	C	B
Approach Vol, veh/h	604		837			1027
Approach Delay, s/veh	250.8		28.7			15.9
Approach LOS	F		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.5		25.0	16.1	38.4		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		49.0		20.0	14.0	34.0		
Max Q Clear Time (g_c+I1), s		22.0		22.0	9.7	28.1		
Green Ext Time (p_c), s		12.5		0.0	0.4	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	77.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	365	320	170	435	5	210	105	95	15	205	245
Future Volume (veh/h)	165	365	320	170	435	5	210	105	95	15	205	245
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1863	1863	1900	1776	1776	1776	1863	1863	1900
Adj Flow Rate, veh/h	181	401	352	187	478	5	231	115	0	16	225	269
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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, %	4	4	4	2	2	2	7	7	7	2	2	2
Cap, veh/h	257	511	434	291	516	5	268	768	653	19	216	259
Arrive On Green	0.09	0.28	0.28	0.09	0.28	0.28	0.16	0.43	0.00	0.01	0.28	0.28
Sat Flow, veh/h	1740	1827	1553	1774	1840	19	1691	1776	1509	1774	759	908
Grp Volume(v), veh/h	181	401	352	187	0	483	231	115	0	16	0	494
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1774	0	1859	1691	1776	1509	1774	0	1667
Q Serve(g_s), s	7.7	21.3	22.2	7.8	0.0	26.6	14.0	4.1	0.0	0.9	0.0	30.0
Cycle Q Clear(g_c), s	7.7	21.3	22.2	7.8	0.0	26.6	14.0	4.1	0.0	0.9	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	257	511	434	291	0	521	268	768	653	19	0	475
V/C Ratio(X)	0.71	0.79	0.81	0.64	0.00	0.93	0.86	0.15	0.00	0.85	0.00	1.04
Avail Cap(c_a), veh/h	348	521	442	382	0	530	649	768	653	175	0	475
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	35.0	35.3	26.0	0.0	36.8	43.2	18.1	0.0	52.0	0.0	37.6
Incr Delay (d2), s/veh	4.0	7.6	10.7	2.4	0.0	22.3	8.1	0.1	0.0	60.6	0.0	52.0
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	8.9	11.8	10.8	3.9	0.0	16.9	7.1	2.0	0.0	0.8	0.0	20.6
LnGrp Delay(d),s/veh	31.0	42.7	46.1	28.3	0.0	59.1	51.3	18.2	0.0	112.6	0.0	89.7
LnGrp LOS	C	D	D	C		E	D	B		F		F
Approach Vol, veh/h		934			670			346			510	
Approach Delay, s/veh		41.7			50.5			40.3			90.4	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	34.5	5.7	50.5	14.6	34.4	21.3	35.0
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	15.4	30.0	10.4	30.0	15.4	30.0	40.4	30.0
Max Q Clear Time (g_c+I1), s	9.7	28.6	2.9	6.1	9.8	24.2	16.0	32.0
Green Ext Time (p_c), s	0.2	0.9	0.0	4.3	0.2	3.3	0.7	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	0	40	0	5	10	65	95	0	0	395	310
Future Volume (vph)	300	0	40	0	5	10	65	95	0	0	395	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	0.99
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		0.90		1.00	1.00			0.99	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736		1553		1686		1752	1845			1732	1469
Flt Permitted	0.75		1.00		1.00		0.25	1.00			1.00	1.00
Satd. Flow (perm)	1364		1553		1686		454	1845			1732	1469
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	330	0	44	0	5	11	71	104	0	0	434	341
RTOR Reduction (vph)	0	0	29	0	11	0	0	0	0	0	2	195
Lane Group Flow (vph)	330	0	15	0	5	0	71	104	0	0	466	112
Confl. Peds. (#/hr)									5	5		
Confl. Bikes (#/hr)									2			3
Heavy Vehicles (%)	4%	4%	4%	92%	92%	92%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	28.6		28.6		1.3		34.1	38.7			30.2	30.2
Effective Green, g (s)	28.6		28.6		1.3		34.1	38.7			30.2	30.2
Actuated g/C Ratio	0.35		0.35		0.02		0.41	0.47			0.36	0.36
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	471		536		26		248	862			631	535
v/s Ratio Prot					c0.00		c0.01	0.06			c0.27	
v/s Ratio Perm	c0.24		0.01				0.10					0.08
v/c Ratio	0.70		0.03		0.20		0.29	0.12			0.74	0.21
Uniform Delay, d1	23.4		17.9		40.2		16.4	12.4			22.9	18.1
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	4.7		0.0		3.7		0.6	0.1			4.5	0.2
Delay (s)	28.1		17.9		44.0		17.0	12.5			27.4	18.3
Level of Service	C		B		D		B	B			C	B
Approach Delay (s)		26.9			44.0			14.3			23.8	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	20.8
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	350	65	125	400	60	65	70	70	100	245	135
Future Volume (veh/h)	95	350	65	125	400	60	65	70	70	100	245	135
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1845	1845	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	103	380	71	136	435	65	71	76	76	109	266	147
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	308	468	88	345	493	74	289	220	220	495	310	171
Arrive On Green	0.08	0.31	0.31	0.09	0.31	0.31	0.07	0.26	0.26	0.08	0.27	0.27
Sat Flow, veh/h	1774	1524	285	1757	1566	234	1774	848	848	1792	1136	628
Grp Volume(v), veh/h	103	0	451	136	0	500	71	0	152	109	0	413
Grp Sat Flow(s),veh/h/ln	1774	0	1809	1757	0	1800	1774	0	1696	1792	0	1763
Q Serve(g_s), s	2.3	0.0	14.0	3.1	0.0	16.1	1.7	0.0	4.5	2.6	0.0	13.6
Cycle Q Clear(g_c), s	2.3	0.0	14.0	3.1	0.0	16.1	1.7	0.0	4.5	2.6	0.0	13.6
Prop In Lane	1.00		0.16	1.00		0.13	1.00		0.50	1.00		0.36
Lane Grp Cap(c), veh/h	308	0	556	345	0	567	289	0	439	495	0	481
V/C Ratio(X)	0.33	0.00	0.81	0.39	0.00	0.88	0.25	0.00	0.35	0.22	0.00	0.86
Avail Cap(c_a), veh/h	367	0	593	391	0	590	370	0	528	552	0	549
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	14.4	0.0	19.5	14.0	0.0	19.8	15.8	0.0	18.4	14.3	0.0	21.1
Incr Delay (d2), s/veh	0.2	0.0	7.2	0.3	0.0	14.3	0.2	0.0	0.2	0.1	0.0	10.5
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	1.1	0.0	8.1	1.5	0.0	10.2	0.8	0.0	2.1	1.3	0.0	7.9
LnGrp Delay(d),s/veh	14.6	0.0	26.7	14.2	0.0	34.1	16.0	0.0	18.6	14.3	0.0	31.6
LnGrp LOS	B		C	B		C	B		B	B		C
Approach Vol, veh/h		554			636			223			522	
Approach Delay, s/veh		24.4			29.9			17.7			28.0	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	23.7	8.6	20.3	8.9	23.3	7.7	21.2
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.0	20.0	7.0	19.0	7.0	20.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	4.3	18.1	4.6	6.5	5.1	16.0	3.7	15.6
Green Ext Time (p_c), s	0.0	1.0	0.0	2.0	0.0	1.9	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	60	130	280	55	115	685
Future Vol, veh/h	60	130	280	55	115	685
Conflicting Peds, #/hr	34	10	0	34	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	5	3	3
Mvmt Flow	67	144	311	61	128	761

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1427	386	0	0	406	0
Stage 1	376	-	-	-	-	-
Stage 2	1051	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	150	666	-	-	1147	-
Stage 1	699	-	-	-	-	-
Stage 2	339	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	125	638	-	-	1136	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.2	0	1.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	125	638	1136	-
HCM Lane V/C Ratio	-	-	0.533	0.226	0.112	-
HCM Control Delay (s)	-	-	62.7	12.3	8.6	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	2.5	0.9	0.4	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	0	390	5	5	875
Future Vol, veh/h	0	0	390	5	5	875
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	0	0	433	6	6	972

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1427	444	0	0	443	0
Stage 1	440	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	150	618	-	-	1117	-
Stage 1	653	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	148	613	-	-	1113	-
Mov Cap-2 Maneuver	272	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	361	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1113	-
HCM Lane V/C Ratio	-	-	-	0.005	-
HCM Control Delay (s)	-	-	0	8.3	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	20	370	10	40	835
Future Vol, veh/h	5	20	370	10	40	835
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	6	22	416	11	45	938

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1457	429	0	0	431	0
Stage 1	425	-	-	-	-	-
Stage 2	1032	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	141	622	-	-	1129	-
Stage 1	655	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	134	617	-	-	1125	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	326	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	477	1125	-
HCM Lane V/C Ratio	-	-	0.059	0.04	-
HCM Control Delay (s)	-	-	13	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	80	0	0	65	5	60	0	10	5	0	0
Future Vol, veh/h	5	80	0	0	65	5	60	0	10	5	0	0
Conflicting Peds, #/hr	2	0	1	2	0	3	1	0	2	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	2	2	2	0	0	0	0	0	0
Mvmt Flow	6	104	0	0	84	6	78	0	13	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	106	0	0	209	213	109	217	210	93
Stage 1	-	-	-	-	-	-	119	119	-	91	91	-
Stage 2	-	-	-	-	-	-	90	94	-	126	119	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1494	-	-	1485	-	-	753	688	950	744	691	970
Stage 1	-	-	-	-	-	-	890	801	-	921	823	-
Stage 2	-	-	-	-	-	-	922	821	-	883	801	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1491	-	-	1481	-	-	748	682	945	727	685	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	748	682	-	727	685	-
Stage 1	-	-	-	-	-	-	885	796	-	915	821	-
Stage 2	-	-	-	-	-	-	920	819	-	865	796	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.3	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	771	1491	-	-	1481	-	-	727
HCM Lane V/C Ratio	0.118	0.004	-	-	-	-	-	0.009
HCM Control Delay (s)	10.3	7.4	0	-	0	-	-	10
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	80	10	5	65	5	5	0	5	5	0	0
Future Vol, veh/h	10	80	10	5	65	5	5	0	5	5	0	0
Conflicting Peds, #/hr	6	0	7	1	0	0	7	0	1	0	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	1	1	1	3	3	3	0	0	0	0	0	0
Mvmt Flow	12	98	12	6	79	6	6	0	6	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	91	0	0	117	0	0	237	239	112	233	242	95
Stage 1	-	-	-	-	-	-	135	135	-	101	101	-
Stage 2	-	-	-	-	-	-	102	104	-	132	141	-
Critical Hdwy	4.11	-	-	4.13	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.227	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1510	-	-	1465	-	-	722	666	947	726	663	967
Stage 1	-	-	-	-	-	-	873	789	-	910	815	-
Stage 2	-	-	-	-	-	-	909	813	-	876	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1500	-	-	1464	-	-	705	649	940	709	646	955
Mov Cap-2 Maneuver	-	-	-	-	-	-	705	649	-	709	646	-
Stage 1	-	-	-	-	-	-	859	777	-	897	807	-
Stage 2	-	-	-	-	-	-	899	805	-	862	772	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.5	9.5	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	806	1500	-	-	1464	-	-	709
HCM Lane V/C Ratio	0.015	0.008	-	-	0.004	-	-	0.009
HCM Control Delay (s)	9.5	7.4	0	-	7.5	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	50	35	5	0	55	20	5	0	0	10	0	10
Future Vol, veh/h	50	35	5	0	55	20	5	0	0	10	0	10
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	10	10	10
Mvmt Flow	72	51	7	0	80	29	7	0	0	14	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	110	0	0	59	0	0	301	310	56	295	299	95
Stage 1	-	-	-	-	-	-	200	200	-	95	95	-
Stage 2	-	-	-	-	-	-	101	110	-	200	204	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	1480	-	-	1558	-	-	655	608	1016	642	600	940
Stage 1	-	-	-	-	-	-	806	739	-	892	801	-
Stage 2	-	-	-	-	-	-	910	808	-	784	718	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1480	-	-	1557	-	-	620	577	1014	616	569	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	620	577	-	616	569	-
Stage 1	-	-	-	-	-	-	765	701	-	847	800	-
Stage 2	-	-	-	-	-	-	896	807	-	744	681	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.2	0	10.9	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	620	1480	-	-	1557	-	-	744
HCM Lane V/C Ratio	0.012	0.049	-	-	-	-	-	0.039
HCM Control Delay (s)	10.9	7.6	0	-	0	-	-	10
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	25	45	5	0	5
Future Vol, veh/h	5	25	45	5	0	5
Conflicting Peds, #/hr	1	0	0	1	1	1
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	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	37	66	7	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	75	0	-	0	123	72
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1537	-	-	-	877	996
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1536	-	-	-	871	994
Mov Cap-2 Maneuver	-	-	-	-	871	-
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1536	-	-	-	994
HCM Lane V/C Ratio	0.005	-	-	-	0.007
HCM Control Delay (s)	7.4	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	20	0	10	0	0	0	15	0	0	0	0	30
Future Vol, veh/h	20	0	10	0	0	0	15	0	0	0	0	30
Conflicting Peds, #/hr	1	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	92	68	92	92	92	68	68	92	92	68	68
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	29	0	15	0	0	0	22	0	0	0	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	15	0	0	90	68	7	68	76	3
Stage 1	-	-	-	-	-	-	66	66	-	2	2	-
Stage 2	-	-	-	-	-	-	24	2	-	66	74	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1603	-	-	900	826	1075	925	818	1087
Stage 1	-	-	-	-	-	-	950	844	-	1021	898	-
Stage 2	-	-	-	-	-	-	999	898	-	945	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	851	810	1075	911	803	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	851	810	-	911	803	-
Stage 1	-	-	-	-	-	-	933	829	-	1002	897	-
Stage 2	-	-	-	-	-	-	957	897	-	928	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.8	0	9.3	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	851	1632	-	-	1603	-	-	1085
HCM Lane V/C Ratio	0.026	0.018	-	-	-	-	-	0.041
HCM Control Delay (s)	9.3	7.2	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	420	85	150	600	170	145	275	280	75	105	50
Future Volume (veh/h)	30	420	85	150	600	170	145	275	280	75	105	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1900	1881	1881	1881	1900	1900	1900
Adj Flow Rate, veh/h	32	442	89	158	632	179	153	289	295	79	111	53
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
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	1	1	1	1	1	1	0	0	0
Cap, veh/h	60	739	147	142	815	230	193	428	485	108	217	103
Arrive On Green	0.03	0.25	0.25	0.08	0.30	0.30	0.11	0.23	0.23	0.06	0.18	0.18
Sat Flow, veh/h	1774	2925	584	1792	2736	774	1792	1881	1574	1810	1208	577
Grp Volume(v), veh/h	32	266	265	158	412	399	153	289	295	79	0	164
Grp Sat Flow(s),veh/h/ln	1774	1770	1740	1792	1787	1723	1792	1881	1574	1810	0	1784
Q Serve(g_s), s	1.1	8.3	8.5	5.0	13.3	13.3	5.2	8.8	10.1	2.7	0.0	5.2
Cycle Q Clear(g_c), s	1.1	8.3	8.5	5.0	13.3	13.3	5.2	8.8	10.1	2.7	0.0	5.2
Prop In Lane	1.00		0.34	1.00		0.45	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	60	447	439	142	532	513	193	428	485	108	0	320
V/C Ratio(X)	0.53	0.60	0.60	1.11	0.78	0.78	0.79	0.67	0.61	0.73	0.00	0.51
Avail Cap(c_a), veh/h	141	618	608	142	624	602	284	567	602	144	0	397
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	0.00	1.00
Uniform Delay (d), s/veh	29.9	20.7	20.8	29.0	20.2	20.2	27.4	22.2	18.6	29.1	0.0	23.3
Incr Delay (d2), s/veh	2.7	0.5	0.5	108.3	4.2	4.4	5.1	0.8	0.5	7.5	0.0	0.5
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	0.6	4.1	4.1	6.7	7.2	6.9	2.9	4.7	4.4	1.6	0.0	2.6
LnGrp Delay(d),s/veh	32.6	21.2	21.3	137.3	24.4	24.6	32.5	23.0	19.1	36.6	0.0	23.8
LnGrp LOS	C	C	C	F	C	C	C	C	B	D		C
Approach Vol, veh/h		563			969			737			243	
Approach Delay, s/veh		21.9			42.9			23.4			28.0	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	24.8	9.7	20.3	11.0	21.9	12.8	17.3
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 22	5.0	19.0	* 5	* 22	10.0	14.0
Max Q Clear Time (g_c+I1), s	3.1	15.3	4.7	12.1	7.0	10.5	7.2	7.2
Green Ext Time (p_c), s	0.0	2.7	0.0	1.2	0.0	3.7	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Notes

Intersection	
Intersection Delay, s/veh	31.1
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	90	190	35	0	50	130	35	0	50	380	25	0	30	190	85
Future Vol, veh/h	0	90	190	35	0	50	130	35	0	50	380	25	0	30	190	85
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	4	4	4	4	0	0	0	0	2	2	2	2	1	1	1	1
Mvmt Flow	0	93	196	36	0	52	134	36	0	52	392	26	0	31	196	88
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	25	17.9	48.9	20.2
HCM LOS	C	C	E	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	11%	29%	23%	100%	0%
Vol Thru, %	84%	60%	60%	0%	69%
Vol Right, %	5%	11%	16%	0%	31%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	455	315	215	30	275
LT Vol	50	90	50	30	0
Through Vol	380	190	130	0	190
RT Vol	25	35	35	0	85
Lane Flow Rate	469	325	222	31	284
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.918	0.676	0.479	0.072	0.598
Departure Headway (Hd)	7.043	7.493	7.778	8.329	7.59
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	511	481	461	429	473
Service Time	5.115	5.574	5.869	6.109	5.37
HCM Lane V/C Ratio	0.918	0.676	0.482	0.072	0.6
HCM Control Delay	48.9	25	17.9	11.8	21.1
HCM Lane LOS	E	C	C	B	C
HCM 95th-tile Q	10.9	5	2.5	0.2	3.8

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	5	50	0	5	5	635	150	20	510	5
Future Vol, veh/h	0	0	5	50	0	5	5	635	150	20	510	5
Conflicting Peds, #/hr	11	0	11	25	0	25	11	0	25	25	0	11
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	20	20	20	2	2	2	2	2	2	3	3	3
Mvmt Flow	0	0	5	52	0	5	5	655	155	21	526	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1351	1426	564	1364	1350	782	542	0	0	834	0	0
Stage 1	581	581	-	767	767	-	-	-	-	-	-	-
Stage 2	770	845	-	597	583	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.7	6.4	7.12	6.52	6.22	4.12	-	-	4.13	-	-
Critical Hdwy Stg 1	6.3	5.7	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.3	5.7	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	4.18	3.48	3.518	4.018	3.318	2.218	-	-	2.227	-	-
Pot Cap-1 Maneuver	117	124	492	125	150	394	1027	-	-	795	-	-
Stage 1	469	472	-	395	411	-	-	-	-	-	-	-
Stage 2	367	355	-	490	499	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	109	116	475	115	140	375	1003	-	-	776	-	-
Mov Cap-2 Maneuver	109	116	-	115	140	-	-	-	-	-	-	-
Stage 1	462	454	-	384	399	-	-	-	-	-	-	-
Stage 2	352	345	-	460	480	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	57.1	0.1	0.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1003	-	-	475	123	776	-	-
HCM Lane V/C Ratio	0.005	-	-	0.011	0.461	0.027	-	-
HCM Control Delay (s)	8.6	-	-	12.7	57.1	9.8	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	2.1	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	385	5	5	215	245	5	15	15	135	5	115
Future Volume (veh/h)	350	385	5	5	215	245	5	15	15	135	5	115
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1900	1863	1900	1900	1845	1845
Adj Flow Rate, veh/h	372	410	5	5	229	261	5	16	16	144	5	122
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	368	1081	13	12	724	451	107	116	99	0	252	208
Arrive On Green	0.21	0.58	0.58	0.01	0.38	0.38	0.14	0.14	0.14	0.00	0.14	0.14
Sat Flow, veh/h	1792	1854	23	1792	1881	1552	104	850	727	0	1845	1527
Grp Volume(v), veh/h	372	0	415	5	229	261	37	0	0	0	5	122
Grp Sat Flow(s),veh/h/ln	1792	0	1876	1792	1881	1552	1681	0	0	0	1845	1527
Q Serve(g_s), s	9.0	0.0	5.2	0.1	3.7	10.4	0.0	0.0	0.0	0.0	0.1	3.3
Cycle Q Clear(g_c), s	9.0	0.0	5.2	0.1	3.7	10.4	0.8	0.0	0.0	0.0	0.1	3.3
Prop In Lane	1.00		0.01	1.00		1.00	0.14		0.43	0.00		1.00
Lane Grp Cap(c), veh/h	368	0	1094	12	724	451	322	0	0	0	252	208
V/C Ratio(X)	1.01	0.00	0.38	0.41	0.32	0.58	0.11	0.00	0.00	0.00	0.02	0.59
Avail Cap(c_a), veh/h	368	0	1198	204	1030	704	509	0	0	0	884	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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	4.9	21.7	9.5	31.5	16.7	0.0	0.0	0.0	16.4	17.8
Incr Delay (d2), s/veh	49.8	0.0	0.2	21.1	0.2	1.2	0.2	0.0	0.0	0.0	0.0	2.6
Initial Q Delay(d3),s/veh	0.1	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	9.4	0.0	2.7	0.1	2.0	4.6	0.4	0.0	0.0	0.0	0.1	1.5
LnGrp Delay(d),s/veh	67.3	0.0	5.1	42.8	9.7	32.7	16.9	0.0	0.0	0.0	16.4	20.4
LnGrp LOS	F		A	D	A	C	B				B	C
Approach Vol, veh/h		787			495			37			127	
Approach Delay, s/veh		34.5			22.2			16.9			20.2	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	20.9	0.0	10.0	4.3	29.6		10.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	24.0	6.0	11.0	5.0	28.0		21.0
Max Q Clear Time (g_c+I1), s	11.0	12.4	0.0	2.8	2.1	7.2		5.3
Green Ext Time (p_c), s	0.0	3.9	0.0	0.3	0.0	5.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	370	65	210	250	160	100	350	215	145	285	90
Future Volume (veh/h)	200	370	65	210	250	160	100	350	215	145	285	90
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1863	1863	1863	1863	1863	1863	1845	1845	1900
Adj Flow Rate, veh/h	206	381	67	216	258	165	103	361	222	149	294	93
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	229	780	751	221	767	783	124	413	521	171	328	104
Arrive On Green	0.13	0.41	0.41	0.12	0.41	0.41	0.07	0.22	0.22	0.10	0.25	0.25
Sat Flow, veh/h	1792	1881	1542	1774	1863	1528	1774	1863	1462	1757	1317	416
Grp Volume(v), veh/h	206	381	67	216	258	165	103	361	222	149	0	387
Grp Sat Flow(s),veh/h/ln	1792	1881	1542	1774	1863	1528	1774	1863	1462	1757	0	1733
Q Serve(g_s), s	17.6	23.0	3.6	18.8	14.7	9.2	8.9	29.0	18.2	13.0	0.0	33.5
Cycle Q Clear(g_c), s	17.6	23.0	3.6	18.8	14.7	9.2	8.9	29.0	18.2	13.0	0.0	33.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	229	780	751	221	767	783	124	413	521	171	0	431
V/C Ratio(X)	0.90	0.49	0.09	0.98	0.34	0.21	0.83	0.88	0.43	0.87	0.00	0.90
Avail Cap(c_a), veh/h	281	780	751	221	767	783	164	598	667	219	0	431
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	0.00	1.00
Uniform Delay (d), s/veh	66.6	33.3	21.5	67.6	31.1	21.0	71.2	58.3	39.1	69.0	0.0	56.3
Incr Delay (d2), s/veh	26.1	2.2	0.2	54.1	1.2	0.6	23.1	9.8	0.6	25.0	0.0	21.0
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	10.4	12.4	1.6	12.6	7.8	4.0	5.2	16.1	7.4	7.5	0.0	18.5
LnGrp Delay(d),s/veh	92.7	35.5	21.8	121.7	32.3	21.6	94.2	68.1	39.6	94.0	0.0	77.3
LnGrp LOS	F	D	C	F	C	C	F	E	D	F		E
Approach Vol, veh/h		654			639			686			536	
Approach Delay, s/veh		52.1			59.8			62.8			81.9	
Approach LOS		D			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.5	69.2	20.8	39.5	25.0	69.7	16.5	43.8
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 50	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	19.6	16.7	15.0	31.0	20.8	25.0	10.9	35.5
Green Ext Time (p_c), s	0.2	4.6	0.1	3.3	0.0	4.7	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.3
HCM 2010 LOS	E

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	205	250	765	110	165	575
Future Volume (veh/h)	205	250	765	110	165	575
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	209	255	781	112	168	587
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	183	223	892	740	280	1163
Arrive On Green	0.24	0.24	0.48	0.48	0.07	0.62
Sat Flow, veh/h	755	922	1863	1546	1774	1863
Grp Volume(v), veh/h	465	0	781	112	168	587
Grp Sat Flow(s),veh/h/ln	1681	0	1863	1546	1774	1863
Q Serve(g_s), s	20.0	0.0	31.0	3.4	3.9	14.3
Cycle Q Clear(g_c), s	20.0	0.0	31.0	3.4	3.9	14.3
Prop In Lane	0.45	0.55		1.00	1.00	
Lane Grp Cap(c), veh/h	408	0	892	740	280	1163
V/C Ratio(X)	1.14	0.00	0.88	0.15	0.60	0.50
Avail Cap(c_a), veh/h	408	0	1084	900	452	1163
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	31.2	0.0	19.3	12.1	17.0	8.5
Incr Delay (d2), s/veh	89.0	0.0	7.1	0.1	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.2	0.0	17.6	3.9	2.0	7.3
LnGrp Delay(d),s/veh	120.2	0.0	26.4	12.2	19.1	8.9
LnGrp LOS	F		C	B	B	A
Approach Vol, veh/h	465		893			755
Approach Delay, s/veh	120.2		24.6			11.1
Approach LOS	F		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.5		25.0	12.0	45.5		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		48.0		20.0	14.0	48.0		
Max Q Clear Time (g_c+I1), s		16.3		22.0	5.9	33.0		
Green Ext Time (p_c), s		12.9		0.0	0.3	6.4		

Intersection Summary	
HCM 2010 Ctrl Delay	40.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	420	330	220	330	25	185	410	220	5	70	155
Future Volume (veh/h)	260	420	330	220	330	25	185	410	220	5	70	155
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1900	1881	1881	1881	1881	1881	1900
Adj Flow Rate, veh/h	271	438	344	229	344	26	193	427	0	5	73	161
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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	1	1	1
Cap, veh/h	451	592	503	369	513	39	238	620	527	7	105	232
Arrive On Green	0.13	0.31	0.31	0.12	0.30	0.30	0.13	0.33	0.00	0.00	0.20	0.20
Sat Flow, veh/h	1792	1881	1599	1792	1728	131	1792	1881	1599	1792	523	1154
Grp Volume(v), veh/h	271	438	344	229	0	370	193	427	0	5	0	234
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1792	0	1858	1792	1881	1599	1792	0	1678
Q Serve(g_s), s	8.2	16.9	15.2	7.0	0.0	14.2	8.5	16.0	0.0	0.2	0.0	10.5
Cycle Q Clear(g_c), s	8.2	16.9	15.2	7.0	0.0	14.2	8.5	16.0	0.0	0.2	0.0	10.5
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	451	592	503	369	0	552	238	620	527	7	0	337
V/C Ratio(X)	0.60	0.74	0.68	0.62	0.00	0.67	0.81	0.69	0.00	0.71	0.00	0.69
Avail Cap(c_a), veh/h	620	929	789	503	0	917	495	813	691	108	0	580
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.2	24.8	24.3	18.2	0.0	25.0	34.2	23.6	0.0	40.3	0.0	30.1
Incr Delay (d2), s/veh	1.3	1.8	1.7	1.7	0.0	1.4	6.6	1.6	0.0	82.2	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	4.2	9.1	6.9	3.5	0.0	7.4	4.6	8.6	0.0	0.3	0.0	5.1
LnGrp Delay(d),s/veh	18.5	26.7	25.9	20.0	0.0	26.4	40.7	25.2	0.0	122.5	0.0	32.6
LnGrp LOS	B	C	C	B		C	D	C		F		C
Approach Vol, veh/h		1053			599			620			239	
Approach Delay, s/veh		24.3			23.9			30.0			34.5	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	29.1	4.9	31.7	13.9	30.5	15.3	21.3
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	18.4	40.0	4.9	35.0	15.4	40.0	22.4	28.0
Max Q Clear Time (g_c+I1), s	10.2	16.2	2.2	18.0	9.0	18.9	10.5	12.5
Green Ext Time (p_c), s	0.5	6.9	0.0	3.9	0.3	6.6	0.4	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	480	0	60	0	5	10	365	330	0	0	150	440
Future Volume (vph)	480	0	60	0	5	10	365	330	0	0	150	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		0.91		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		0.90		1.00	1.00			0.92	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1779		1599		1563		1787	1881			1633	1504
Flt Permitted	0.75		1.00		1.00		0.21	1.00			1.00	1.00
Satd. Flow (perm)	1399		1599		1563		402	1881			1633	1504
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	500	0	62	0	5	10	380	344	0	0	156	458
RTOR Reduction (vph)	0	0	43	0	10	0	0	0	0	0	29	232
Lane Group Flow (vph)	500	0	20	0	5	0	380	344	0	0	292	61
Confl. Peds. (#/hr)	5					5			7	7		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	1%	1%	1%	89%	89%	89%	1%	1%	1%	2%	2%	2%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	29.2		29.2		1.1		37.9	42.5			19.4	19.4
Effective Green, g (s)	29.2		29.2		1.1		37.9	42.5			19.4	19.4
Actuated g/C Ratio	0.31		0.31		0.01		0.41	0.46			0.21	0.21
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	440		503		18		440	861			341	314
v/s Ratio Prot					c0.00		c0.17	0.18			0.18	
v/s Ratio Perm	c0.36		0.01				c0.18					0.04
v/c Ratio	1.14		0.04		0.28		0.86	0.40			0.86	0.20
Uniform Delay, d1	31.8		22.1		45.5		21.8	16.7			35.4	30.3
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	85.8		0.0		8.5		16.0	0.3			18.5	0.3
Delay (s)	117.6		22.1		54.0		37.8	17.0			53.8	30.6
Level of Service	F		C		D		D	B			D	C
Approach Delay (s)		106.9			54.0			27.9			42.7	
Approach LOS		F			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	56.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	92.8	Sum of lost time (s)	20.8
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	375	50	150	530	110	120	300	115	75	145	50
Future Volume (veh/h)	130	375	50	150	530	110	120	300	115	75	145	50
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	391	52	156	552	115	125	312	120	78	151	52
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	0	0	0	0	0	0
Cap, veh/h	267	508	68	362	475	99	468	359	138	288	354	122
Arrive On Green	0.09	0.31	0.31	0.09	0.32	0.32	0.08	0.28	0.28	0.07	0.26	0.26
Sat Flow, veh/h	1792	1625	216	1792	1509	314	1810	1301	500	1810	1348	464
Grp Volume(v), veh/h	135	0	443	156	0	667	125	0	432	78	0	203
Grp Sat Flow(s),veh/h/ln	1792	0	1841	1792	0	1823	1810	0	1801	1810	0	1812
Q Serve(g_s), s	3.1	0.0	13.8	3.6	0.0	20.0	3.1	0.0	14.5	1.9	0.0	5.9
Cycle Q Clear(g_c), s	3.1	0.0	13.8	3.6	0.0	20.0	3.1	0.0	14.5	1.9	0.0	5.9
Prop In Lane	1.00		0.12	1.00		0.17	1.00		0.28	1.00		0.26
Lane Grp Cap(c), veh/h	267	0	575	362	0	574	468	0	498	288	0	476
V/C Ratio(X)	0.51	0.00	0.77	0.43	0.00	1.16	0.27	0.00	0.87	0.27	0.00	0.43
Avail Cap(c_a), veh/h	311	0	577	404	0	574	515	0	539	359	0	542
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	15.5	0.0	19.8	14.3	0.0	21.7	14.8	0.0	21.9	16.3	0.0	19.4
Incr Delay (d2), s/veh	0.6	0.0	5.7	0.3	0.0	90.6	0.1	0.0	12.5	0.2	0.0	0.2
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	1.6	0.0	7.9	1.8	0.0	24.3	1.5	0.0	8.9	0.9	0.0	3.0
LnGrp Delay(d),s/veh	16.1	0.0	25.4	14.6	0.0	112.3	15.0	0.0	34.3	16.5	0.0	19.6
LnGrp LOS	B		C	B		F	B		C	B		B
Approach Vol, veh/h		578			823			557			281	
Approach Delay, s/veh		23.3			93.8			30.0			18.8	
Approach LOS		C			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	24.5	8.0	22.0	9.1	24.3	8.8	21.2
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.1	19.9	7.0	19.0
Max Q Clear Time (g_c+I1), s	5.1	22.0	3.9	16.5	5.6	15.8	5.1	7.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	2.4	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	50.3
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	45	80	840	35	50	450
Future Vol, veh/h	45	80	840	35	50	450
Conflicting Peds, #/hr	11	6	0	11	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	48	85	894	37	53	479

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1519	929	0	0	942	0
Stage 1	923	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	131	324	-	-	728	-
Stage 1	387	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	119	319	-	-	724	-
Mov Cap-2 Maneuver	119	-	-	-	-	-
Stage 1	383	-	-	-	-	-
Stage 2	504	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.5	0	1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	119	319	724	-
HCM Lane V/C Ratio	-	-	0.402	0.267	0.073	-
HCM Control Delay (s)	-	-	54.3	20.3	10.4	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	1.7	1.1	0.2	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	10	820	5	5	515
Future Vol, veh/h	5	10	820	5	5	515
Conflicting Peds, #/hr	4	6	0	4	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	6	11	921	6	6	579

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1524	936	0	0	933	0
Stage 1	930	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	131	324	-	-	734	-
Stage 1	387	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	129	320	-	-	730	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	298	730	-
HCM Lane V/C Ratio	-	-	0.057	0.008	-
HCM Control Delay (s)	-	-	17.8	10	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	20	40	785	20	55	455
Future Vol, veh/h	20	40	785	20	55	455
Conflicting Peds, #/hr	6	6	0	6	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	22	44	872	22	61	506

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1523	895	0	0	900	0
Stage 1	889	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	131	342	-	-	755	-
Stage 1	405	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	119	338	-	-	751	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.1	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	305	751	-
HCM Lane V/C Ratio	-	-	0.219	0.081	-
HCM Control Delay (s)	-	-	20.1	10.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.8	0.3	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	70	0	0	95	15	5	0	0	10	0	5
Future Vol, veh/h	5	70	0	0	95	15	5	0	0	10	0	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	1	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	1	1	1	20	20	20	0	0	0
Mvmt Flow	6	80	0	0	108	17	6	0	0	11	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	81	0	0	213	219	83	211	210	120
Stage 1	-	-	-	-	-	-	92	92	-	118	118	-
Stage 2	-	-	-	-	-	-	121	127	-	93	92	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.3	6.7	6.4	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.68	4.18	3.48	3.5	4	3.3
Pot Cap-1 Maneuver	1472	-	-	1523	-	-	707	649	929	750	691	937
Stage 1	-	-	-	-	-	-	873	785	-	891	802	-
Stage 2	-	-	-	-	-	-	842	758	-	919	823	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1469	-	-	1520	-	-	699	645	926	745	686	933
Mov Cap-2 Maneuver	-	-	-	-	-	-	699	645	-	745	686	-
Stage 1	-	-	-	-	-	-	869	781	-	886	800	-
Stage 2	-	-	-	-	-	-	835	757	-	914	819	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	10.2	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1469	-	-	1520	-	-	799
HCM Lane V/C Ratio	0.008	0.004	-	-	-	-	-	0.021
HCM Control Delay (s)	10.2	7.5	0	-	0	-	-	9.6
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	75	5	5	100	5	5	0	5	5	0	5
Future Vol, veh/h	0	75	5	5	100	5	5	0	5	5	0	5
Conflicting Peds, #/hr	3	0	1	1	0	3	1	0	1	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	0	83	6	6	111	6	6	0	6	6	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	90	0	0	218	218	90	220	218	120
Stage 1	-	-	-	-	-	-	87	87	-	128	128	-
Stage 2	-	-	-	-	-	-	131	131	-	92	90	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1480	-	-	1512	-	-	743	684	973	740	684	937
Stage 1	-	-	-	-	-	-	926	827	-	881	794	-
Stage 2	-	-	-	-	-	-	877	792	-	920	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1476	-	-	1508	-	-	734	679	969	729	679	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	734	679	-	729	679	-
Stage 1	-	-	-	-	-	-	925	826	-	878	789	-
Stage 2	-	-	-	-	-	-	866	787	-	912	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	9.4	9.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	835	1476	-	-	1508	-	-	818
HCM Lane V/C Ratio	0.013	-	-	-	0.004	-	-	0.014
HCM Control Delay (s)	9.4	0	-	-	7.4	0	-	9.5
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	65	5	0	65	5	5	0	0	10	0	35
Future Vol, veh/h	15	65	5	0	65	5	5	0	0	10	0	35
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	17	72	6	0	72	6	6	0	0	11	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	81	0	0	78	0	0	205	189	78	189	189	81
Stage 1	-	-	-	-	-	-	108	108	-	78	78	-
Stage 2	-	-	-	-	-	-	97	81	-	111	111	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1529	-	-	1527	-	-	757	709	988	776	709	985
Stage 1	-	-	-	-	-	-	902	810	-	936	834	-
Stage 2	-	-	-	-	-	-	914	832	-	899	807	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1525	-	-	1523	-	-	718	698	985	765	698	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	718	698	-	765	698	-
Stage 1	-	-	-	-	-	-	891	800	-	922	832	-
Stage 2	-	-	-	-	-	-	875	830	-	886	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	10.1	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	718	1525	-	-	1523	-	-	922
HCM Lane V/C Ratio	0.008	0.011	-	-	-	-	-	0.054
HCM Control Delay (s)	10.1	7.4	0	-	0	-	-	9.1
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	55	40	5	5	15
Future Vol, veh/h	5	55	40	5	5	15
Conflicting Peds, #/hr	2	0	0	1	1	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	6	63	46	6	6	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	54	0	-	0	127	53
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	76	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1564	-	-	-	872	1020
Stage 1	-	-	-	-	977	-
Stage 2	-	-	-	-	952	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1561	-	-	-	865	1016
Mov Cap-2 Maneuver	-	-	-	-	865	-
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1561	-	-	-	974
HCM Lane V/C Ratio	0.004	-	-	-	0.024
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Future Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Conflicting Peds, #/hr	3	0	6	0	0	0	6	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	92	85	92	92	92	85	85	92	92	85	85
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	3	3
Mvmt Flow	53	0	12	0	0	0	6	0	0	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	18	0	0	146	122	12	116	128	10
Stage 1	-	-	-	-	-	-	118	118	-	4	4	-
Stage 2	-	-	-	-	-	-	28	4	-	112	124	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4.027	3.327
Pot Cap-1 Maneuver	1631	-	-	1599	-	-	827	772	1069	861	761	1068
Stage 1	-	-	-	-	-	-	891	802	-	1018	890	-
Stage 2	-	-	-	-	-	-	994	897	-	893	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1599	-	-	766	740	1063	837	730	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	740	-	837	730	-
Stage 1	-	-	-	-	-	-	857	771	-	982	887	-
Stage 2	-	-	-	-	-	-	950	894	-	864	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	9.7	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1622	-	-	1599	-	-	1059
HCM Lane V/C Ratio	0.008	0.033	-	-	-	-	-	0.039
HCM Control Delay (s)	9.7	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	490	128	331	621	137	63	88	87	210	225	63
Future Volume (veh/h)	33	490	128	331	621	137	63	88	87	210	225	63
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1810	1810	1900	1827	1827	1827	1845	1845	1900
Adj Flow Rate, veh/h	35	521	136	352	661	146	67	94	93	223	239	67
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	4	4	4	5	5	5	4	4	4	3	3	3
Cap, veh/h	61	693	180	427	971	214	90	232	391	264	311	87
Arrive On Green	0.04	0.25	0.25	0.13	0.35	0.35	0.05	0.13	0.13	0.15	0.23	0.23
Sat Flow, veh/h	1740	2722	707	3343	2797	617	1740	1827	1516	1757	1383	388
Grp Volume(v), veh/h	35	331	326	352	406	401	67	94	93	223	0	306
Grp Sat Flow(s),veh/h/ln	1740	1736	1694	1672	1719	1695	1740	1827	1516	1757	0	1770
Q Serve(g_s), s	1.4	12.4	12.5	7.2	14.2	14.2	2.7	3.3	3.4	8.7	0.0	11.4
Cycle Q Clear(g_c), s	1.4	12.4	12.5	7.2	14.2	14.2	2.7	3.3	3.4	8.7	0.0	11.4
Prop In Lane	1.00		0.42	1.00		0.36	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	61	442	431	427	597	589	90	232	391	264	0	398
V/C Ratio(X)	0.57	0.75	0.76	0.82	0.68	0.68	0.74	0.41	0.24	0.85	0.00	0.77
Avail Cap(c_a), veh/h	124	542	529	427	635	626	222	752	823	274	0	779
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	0.00	1.00
Uniform Delay (d), s/veh	33.5	24.2	24.2	29.9	19.6	19.7	32.9	28.3	20.8	29.1	0.0	25.6
Incr Delay (d2), s/veh	3.1	3.4	3.7	11.6	2.1	2.2	4.4	0.4	0.1	19.2	0.0	1.2
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	6.2	4.0	7.0	6.9	1.4	1.7	1.4	5.6	0.0	5.7
LnGrp Delay(d),s/veh	36.5	27.5	27.9	41.6	21.8	21.8	37.4	28.7	21.0	48.3	0.0	26.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	D		C
Approach Vol, veh/h		692			1159			254			529	
Approach Delay, s/veh		28.2			27.8			28.2			35.8	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	30.4	16.6	14.9	15.0	23.9	9.7	21.8
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 26	11.0	29.0	* 9	* 22	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.4	16.2	10.7	5.4	9.2	14.5	4.7	13.4
Green Ext Time (p_c), s	0.0	3.7	0.0	1.3	0.0	3.2	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	121	90	114	211	35	69	178	22	33	341	71
Future Volume (veh/h)	58	121	90	114	211	35	69	178	22	33	341	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.98	0.99		0.98	0.99		0.98
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
Adj Sat Flow, veh/h/ln	1792	1792	1900	1881	1881	1900	1696	1696	1900	1810	1810	1900
Adj Flow Rate, veh/h	63	132	98	124	229	38	75	193	24	36	371	77
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	1	1	1	12	12	12	5	5	5
Cap, veh/h	441	327	243	467	543	90	371	607	75	553	596	124
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1054	945	702	1139	1569	260	847	1476	184	1111	1448	301
Grp Volume(v), veh/h	63	0	230	124	0	267	75	0	217	36	0	448
Grp Sat Flow(s),veh/h/ln	1054	0	1647	1139	0	1829	847	0	1659	1111	0	1749
Q Serve(g_s), s	1.8	0.0	3.9	3.4	0.0	4.1	2.9	0.0	3.3	0.8	0.0	7.5
Cycle Q Clear(g_c), s	6.0	0.0	3.9	7.4	0.0	4.1	10.4	0.0	3.3	4.1	0.0	7.5
Prop In Lane	1.00		0.43	1.00		0.14	1.00		0.11	1.00		0.17
Lane Grp Cap(c), veh/h	441	0	570	467	0	633	371	0	683	553	0	719
V/C Ratio(X)	0.14	0.00	0.40	0.27	0.00	0.42	0.20	0.00	0.32	0.07	0.00	0.62
Avail Cap(c_a), veh/h	588	0	799	625	0	887	433	0	805	635	0	848
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	11.6	0.0	9.2	12.0	0.0	9.3	12.8	0.0	7.4	8.8	0.0	8.6
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.3	0.0	0.4	0.3	0.0	0.3	0.0	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	0.5	0.0	1.9	1.1	0.0	2.2	0.7	0.0	1.6	0.3	0.0	3.8
LnGrp Delay(d),s/veh	11.7	0.0	9.7	12.3	0.0	9.7	13.0	0.0	7.7	8.8	0.0	9.7
LnGrp LOS	B		A	B		A	B		A	A		A
Approach Vol, veh/h		293			391			292			484	
Approach Delay, s/veh		10.1			10.6			9.0			9.7	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.8		17.3		19.8		17.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		12.4		8.0		9.5		9.4
Green Ext Time (p_c), s		2.3		2.8		3.1		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	70	0	15	5	590	35	5	470	0
Future Volume (veh/h)	0	0	5	70	0	15	5	590	35	5	470	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.93		0.90	0.99		0.94	0.99		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
Adj Sat Flow, veh/h/ln	1900	950	1900	1900	1827	1900	1810	1810	1900	1792	1792	0
Adj Flow Rate, veh/h	0	0	6	82	0	18	6	694	41	6	553	0
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	100	100	100	4	4	4	5	5	5	6	6	0
Cap, veh/h	0	0	154	368	15	49	491	967	57	366	1029	0
Arrive On Green	0.00	0.00	0.21	0.21	0.00	0.21	0.57	0.57	0.57	0.57	0.57	0.00
Sat Flow, veh/h	0	0	749	1009	74	238	820	1685	100	688	1792	0
Grp Volume(v), veh/h	0	0	6	100	0	0	6	0	735	6	553	0
Grp Sat Flow(s),veh/h/ln	0	0	749	1322	0	0	820	0	1785	688	1792	0
Q Serve(g_s), s	0.0	0.0	0.3	2.1	0.0	0.0	0.2	0.0	12.2	0.3	7.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	2.5	0.0	0.0	7.9	0.0	12.2	12.4	7.8	0.0
Prop In Lane	0.00		1.00	0.82		0.18	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	154	432	0	0	491	0	1024	366	1029	0
V/C Ratio(X)	0.00	0.00	0.04	0.23	0.00	0.00	0.01	0.00	0.72	0.02	0.54	0.00
Avail Cap(c_a), veh/h	0	0	332	742	0	0	683	0	1440	527	1447	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	13.0	13.8	0.0	0.0	7.8	0.0	6.3	10.8	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	1.0	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	1.0	0.0	0.0	0.0	0.0	6.0	0.1	3.8	0.0
LnGrp Delay(d),s/veh	0.0	0.0	13.1	14.1	0.0	0.0	7.8	0.0	7.3	10.8	5.8	0.0
LnGrp LOS			B	B			A		A	B	A	
Approach Vol, veh/h		6			100			741			559	
Approach Delay, s/veh		13.1			14.1			7.3			5.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		27.9		12.9		27.9		12.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		14.2		2.3		14.4		4.5
Green Ext Time (p_c), s		9.0		0.4		9.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	288	3	12	335	136	2	1	10	276	1	191
Future Volume (veh/h)	72	288	3	12	335	136	2	1	10	276	1	191
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.97		0.95	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1845	1845	1845	1900	1610	1900	1900	1845	1845
Adj Flow Rate, veh/h	82	327	3	14	381	155	2	1	11	314	1	217
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	3	3	3	18	18	18	3	3	3
Cap, veh/h	152	782	7	31	670	412	115	57	279	0	495	393
Arrive On Green	0.09	0.43	0.43	0.02	0.36	0.36	0.27	0.27	0.27	0.00	0.27	0.27
Sat Flow, veh/h	1740	1807	17	1757	1845	1538	69	214	1038	0	1845	1463
Grp Volume(v), veh/h	82	0	330	14	381	155	14	0	0	0	1	217
Grp Sat Flow(s),veh/h/ln	1740	0	1823	1757	1845	1538	1321	0	0	0	1845	1463
Q Serve(g_s), s	1.9	0.0	5.4	0.3	7.1	7.6	0.0	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	1.9	0.0	5.4	0.3	7.1	7.6	0.3	0.0	0.0	0.0	0.0	5.4
Prop In Lane	1.00		0.01	1.00		1.00	0.14		0.79	0.00		1.00
Lane Grp Cap(c), veh/h	152	0	789	31	670	412	451	0	0	0	495	393
V/C Ratio(X)	0.54	0.00	0.42	0.44	0.57	0.38	0.03	0.00	0.00	0.00	0.00	0.55
Avail Cap(c_a), veh/h	856	0	1708	206	1037	717	451	0	0	0	907	720
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	8.4	20.8	10.9	44.0	11.5	0.0	0.0	0.0	11.4	13.4
Incr Delay (d2), s/veh	3.0	0.0	0.4	9.5	0.8	0.6	0.0	0.0	0.0	0.0	0.0	1.2
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	1.0	0.0	2.7	0.2	3.7	3.3	0.1	0.0	0.0	0.0	0.0	2.3
LnGrp Delay(d),s/veh	21.6	0.0	8.7	30.3	11.7	44.6	11.6	0.0	0.0	0.0	11.4	14.6
LnGrp LOS	C		A	C	B	D	B				B	B
Approach Vol, veh/h		412			550			14			218	
Approach Delay, s/veh		11.3			21.4			11.6			14.6	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	19.5	0.0	15.5	4.8	22.5		15.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	24.0	6.0	11.0	5.0	40.0		21.0
Max Q Clear Time (g_c+I1), s	3.9	9.6	0.0	2.3	2.3	7.4		7.4
Green Ext Time (p_c), s	0.2	4.4	0.0	0.5	0.0	5.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	330	178	382	343	314	142	184	173	93	340	112
Future Volume (veh/h)	131	330	178	382	343	314	142	184	173	93	340	112
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1810	1810	1810	1810	1810	1900
Adj Flow Rate, veh/h	147	371	200	429	385	353	160	207	194	104	382	126
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	173	604	652	251	690	676	183	524	653	127	333	110
Arrive On Green	0.10	0.33	0.33	0.14	0.37	0.37	0.11	0.29	0.29	0.07	0.26	0.26
Sat Flow, veh/h	1740	1827	1476	1757	1845	1499	1723	1810	1495	1723	1292	426
Grp Volume(v), veh/h	147	371	200	429	385	353	160	207	194	104	0	508
Grp Sat Flow(s),veh/h/ln	1740	1827	1476	1757	1845	1499	1723	1810	1495	1723	0	1719
Q Serve(g_s), s	11.2	23.0	11.9	19.3	22.3	23.0	12.4	12.4	11.4	8.0	0.0	34.8
Cycle Q Clear(g_c), s	11.2	23.0	11.9	19.3	22.3	23.0	12.4	12.4	11.4	8.0	0.0	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	173	604	652	251	690	676	183	524	653	127	0	443
V/C Ratio(X)	0.85	0.61	0.31	1.71	0.56	0.52	0.88	0.39	0.30	0.82	0.00	1.15
Avail Cap(c_a), veh/h	313	604	652	251	690	676	183	524	653	246	0	443
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	0.90	0.00	0.90
Uniform Delay (d), s/veh	59.8	38.0	24.8	57.9	33.4	26.9	59.5	38.4	25.0	61.6	0.0	50.1
Incr Delay (d2), s/veh	10.9	4.6	1.2	335.1	3.2	2.9	34.7	0.5	0.3	10.9	0.0	87.6
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	5.9	12.4	5.1	32.7	12.0	10.0	7.6	6.3	4.8	4.2	0.0	27.3
LnGrp Delay(d),s/veh	70.7	42.6	26.0	392.9	36.7	29.8	94.2	38.9	25.2	72.5	0.0	137.7
LnGrp LOS	E	D	C	F	D	C	F	D	C	E		F
Approach Vol, veh/h		718			1167			561			612	
Approach Delay, s/veh		43.7			165.6			49.9			126.6	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	55.9	15.7	44.3	25.0	50.0	20.0	40.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 14	34.6	* 19	* 25	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	13.2	25.0	10.0	14.4	21.3	25.0	14.4	36.8
Green Ext Time (p_c), s	0.3	4.8	0.1	3.9	0.0	7.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	108.0
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	383	335	734	185	382	790
Future Volume (veh/h)	383	335	734	185	382	790
Number	7	14	6	16	5	2
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
Adj Sat Flow, veh/h/ln	1827	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	416	364	798	201	415	859
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	3	3
Cap, veh/h	206	181	738	627	374	1172
Arrive On Green	0.24	0.24	0.40	0.40	0.16	0.64
Sat Flow, veh/h	878	768	1845	1568	1757	1845
Grp Volume(v), veh/h	781	0	798	201	415	859
Grp Sat Flow(s),veh/h/ln	1648	0	1845	1568	1757	1845
Q Serve(g_s), s	20.0	0.0	34.0	7.5	14.0	27.0
Cycle Q Clear(g_c), s	20.0	0.0	34.0	7.5	14.0	27.0
Prop In Lane	0.53	0.47		1.00	1.00	
Lane Grp Cap(c), veh/h	388	0	738	627	374	1172
V/C Ratio(X)	2.01	0.00	1.08	0.32	1.11	0.73
Avail Cap(c_a), veh/h	388	0	738	627	374	1172
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	32.5	0.0	25.5	17.5	25.5	10.6
Incr Delay (d2), s/veh	465.6	0.0	57.4	0.3	79.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	59.2	0.0	29.0	7.6	17.0	14.4
LnGrp Delay(d),s/veh	498.1	0.0	82.9	17.8	105.0	13.0
LnGrp LOS	F		F	B	F	B
Approach Vol, veh/h	781		999			1274
Approach Delay, s/veh	498.1		69.8			43.0
Approach LOS	F		E			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		25.0	20.0	40.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		49.0		20.0	14.0	34.0		
Max Q Clear Time (g_c+I1), s		29.0		22.0	16.0	36.0		
Green Ext Time (p_c), s		13.1		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	168.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	431	387	227	542	3	255	107	134	10	227	329
Future Volume (veh/h)	168	431	387	227	542	3	255	107	134	10	227	329
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1863	1863	1900	1776	1776	1776	1863	1863	1900
Adj Flow Rate, veh/h	185	474	425	249	596	3	280	118	0	11	249	362
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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, %	4	4	4	2	2	2	7	7	7	2	2	2
Cap, veh/h	230	481	409	278	531	3	315	784	666	14	177	257
Arrive On Green	0.10	0.26	0.26	0.12	0.29	0.29	0.19	0.44	0.00	0.01	0.26	0.26
Sat Flow, veh/h	1740	1827	1553	1774	1852	9	1691	1776	1509	1774	673	978
Grp Volume(v), veh/h	185	474	425	249	0	599	280	118	0	11	0	611
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1774	0	1861	1691	1776	1509	1774	0	1651
Q Serve(g_s), s	8.7	29.4	30.0	11.5	0.0	32.7	18.4	4.5	0.0	0.7	0.0	30.0
Cycle Q Clear(g_c), s	8.7	29.4	30.0	11.5	0.0	32.7	18.4	4.5	0.0	0.7	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	230	481	409	278	0	534	315	784	666	14	0	434
V/C Ratio(X)	0.81	0.99	1.04	0.90	0.00	1.12	0.89	0.15	0.00	0.80	0.00	1.41
Avail Cap(c_a), veh/h	298	481	409	306	0	534	599	784	666	162	0	434
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.2	41.8	42.0	29.2	0.0	40.7	45.3	19.1	0.0	56.5	0.0	42.0
Incr Delay (d2), s/veh	11.7	37.3	55.4	25.5	0.0	76.9	8.6	0.1	0.0	65.8	0.0	196.4
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	4.9	19.9	19.1	7.5	0.0	28.2	9.4	2.2	0.0	0.6	0.0	37.3
LnGrp Delay(d),s/veh	41.8	79.1	97.4	54.7	0.0	117.6	53.8	19.1	0.0	122.2	0.0	238.4
LnGrp LOS	D	E	F	D		F	D	B		F		F
Approach Vol, veh/h		1084			848			398			622	
Approach Delay, s/veh		79.9			99.1			43.5			236.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	37.7	5.5	55.3	18.2	35.0	25.8	35.0
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	15.4	30.0	10.4	30.0	15.4	30.0	40.4	30.0
Max Q Clear Time (g_c+I1), s	10.7	34.7	2.7	6.5	13.5	32.0	20.4	32.0
Green Ext Time (p_c), s	0.2	0.0	0.0	5.5	0.1	0.0	0.8	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	362	0	45	0	0	0	110	104	0	0	394	419
Future Volume (vph)	362	0	45	0	0	0	110	104	0	0	394	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00				1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00
Frt	1.00		0.85				1.00	1.00			0.99	0.85
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736		1553				1752	1845			1725	1469
Flt Permitted	0.95		1.00				0.26	1.00			1.00	1.00
Satd. Flow (perm)	1736		1553				485	1845			1725	1469
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	398	0	49	0	0	0	121	114	0	0	433	460
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	2	254
Lane Group Flow (vph)	398	0	18	0	0	0	121	114	0	0	477	160
Confl. Peds. (#/hr)									5	5		
Confl. Bikes (#/hr)									2			3
Heavy Vehicles (%)	4%	4%	4%	92%	92%	92%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm				D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	28.4		28.4				35.0	39.6			30.0	30.0
Effective Green, g (s)	28.4		28.4				35.0	39.6			30.0	30.0
Actuated g/C Ratio	0.37		0.37				0.45	0.51			0.39	0.39
Clearance Time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	635		568				300	941			666	567
v/s Ratio Prot							c0.03	0.06			c0.28	
v/s Ratio Perm	c0.23		0.01				0.16					0.11
v/c Ratio	0.63		0.03				0.40	0.12			0.72	0.28
Uniform Delay, d1	20.2		15.8				13.9	9.9			20.2	16.4
Progression Factor	1.00		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2	1.9		0.0				0.9	0.1			3.7	0.3
Delay (s)	22.2		15.8				14.8	10.0			23.8	16.7
Level of Service	C		B				B	A			C	B
Approach Delay (s)		21.5			0.0			12.5			20.5	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	396	73	140	466	67	72	81	80	115	275	150
Future Volume (veh/h)	108	396	73	140	466	67	72	81	80	115	275	150
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1845	1845	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	117	430	79	152	507	73	78	88	87	125	299	163
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	257	469	86	296	491	71	269	234	232	491	328	179
Arrive On Green	0.08	0.31	0.31	0.09	0.31	0.31	0.07	0.27	0.27	0.08	0.29	0.29
Sat Flow, veh/h	1774	1529	281	1757	1575	227	1774	853	844	1792	1142	623
Grp Volume(v), veh/h	117	0	509	152	0	580	78	0	175	125	0	462
Grp Sat Flow(s),veh/h/ln	1774	0	1809	1757	0	1802	1774	0	1697	1792	0	1764
Q Serve(g_s), s	2.8	0.0	17.5	3.7	0.0	20.1	1.9	0.0	5.4	3.1	0.0	16.3
Cycle Q Clear(g_c), s	2.8	0.0	17.5	3.7	0.0	20.1	1.9	0.0	5.4	3.1	0.0	16.3
Prop In Lane	1.00		0.16	1.00		0.13	1.00		0.50	1.00		0.35
Lane Grp Cap(c), veh/h	257	0	555	296	0	562	269	0	466	491	0	508
V/C Ratio(X)	0.46	0.00	0.92	0.51	0.00	1.03	0.29	0.00	0.38	0.25	0.00	0.91
Avail Cap(c_a), veh/h	305	0	562	334	0	562	337	0	501	537	0	521
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	15.9	0.0	21.5	15.7	0.0	22.1	16.5	0.0	18.9	14.5	0.0	22.1
Incr Delay (d2), s/veh	0.5	0.0	19.6	0.5	0.0	46.5	0.2	0.0	0.2	0.1	0.0	19.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	11.6	1.8	0.0	17.1	0.9	0.0	2.5	1.5	0.0	10.5
LnGrp Delay(d),s/veh	16.4	0.0	41.1	16.3	0.0	68.6	16.7	0.0	19.1	14.6	0.0	41.4
LnGrp LOS	B		D	B		F	B		B	B		D
Approach Vol, veh/h		626			732			253			587	
Approach Delay, s/veh		36.5			57.8			18.3			35.7	
Approach LOS		D			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	24.6	8.9	22.2	9.1	24.2	8.0	23.0
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.0	20.0	7.0	19.0	7.0	20.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	4.8	22.1	5.1	7.4	5.7	19.5	3.9	18.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.3	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	10.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	70	145	380	60	130	830
Future Vol, veh/h	70	145	380	60	130	830
Conflicting Peds, #/hr	34	10	0	34	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	5	3	3
Mvmt Flow	78	161	422	67	144	922

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1735	500	0	0	523	0
Stage 1	490	-	-	-	-	-
Stage 2	1245	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	97	575	-	-	1038	-
Stage 1	620	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	78	551	-	-	1028	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	600	-	-	-	-	-
Stage 2	228	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.9	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	78	551	1028	-
HCM Lane V/C Ratio	-	-	0.997	0.292	0.141	-
HCM Control Delay (s)	-	-	194.4	14.2	9.1	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	5.4	1.2	0.5	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	0	505	5	5	1045
Future Vol, veh/h	0	0	505	5	5	1045
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	0	0	561	6	6	1161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1744	572	0	0	571	0
Stage 1	568	-	-	-	-	-
Stage 2	1176	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	96	523	-	-	1002	-
Stage 1	571	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	95	519	-	-	998	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	293	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	998	-
HCM Lane V/C Ratio	-	-	-	0.006	-
HCM Control Delay (s)	-	-	0	8.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	20	480	10	40	1000
Future Vol, veh/h	5	20	480	10	40	1000
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	6	22	539	11	45	1124

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1766	553	0	0	555	0
Stage 1	549	-	-	-	-	-
Stage 2	1217	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	91	529	-	-	1015	-
Stage 1	575	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	86	525	-	-	1011	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	394	1011	-
HCM Lane V/C Ratio	-	-	0.071	0.044	-
HCM Control Delay (s)	-	-	14.8	8.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	90	0	0	75	5	70	0	10	5	0	0
Future Vol, veh/h	5	90	0	0	75	5	70	0	10	5	0	0
Conflicting Peds, #/hr	2	0	1	2	0	3	1	0	2	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	2	2	2	0	0	0	0	0	0
Mvmt Flow	6	117	0	0	97	6	91	0	13	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	119	0	0	235	239	122	243	236	106
Stage 1	-	-	-	-	-	-	132	132	-	104	104	-
Stage 2	-	-	-	-	-	-	103	107	-	139	132	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1478	-	-	1469	-	-	724	666	935	715	668	954
Stage 1	-	-	-	-	-	-	876	791	-	907	813	-
Stage 2	-	-	-	-	-	-	908	811	-	869	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1475	-	-	1465	-	-	719	660	931	699	662	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	719	660	-	699	662	-
Stage 1	-	-	-	-	-	-	871	786	-	901	811	-
Stage 2	-	-	-	-	-	-	906	809	-	851	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.7	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	740	1475	-	-	1465	-	-	699
HCM Lane V/C Ratio	0.14	0.004	-	-	-	-	-	0.009
HCM Control Delay (s)	10.7	7.5	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	90	10	5	75	5	5	0	5	5	0	0
Future Vol, veh/h	10	90	10	5	75	5	5	0	5	5	0	0
Conflicting Peds, #/hr	6	0	7	1	0	0	7	0	1	0	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	1	1	1	3	3	3	0	0	0	0	0	0
Mvmt Flow	12	110	12	6	91	6	6	0	6	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	129	0	0	261	263	124	257	266	108
Stage 1	-	-	-	-	-	-	147	147	-	113	113	-
Stage 2	-	-	-	-	-	-	114	116	-	144	153	-
Critical Hdwy	4.11	-	-	4.13	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.227	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1494	-	-	1451	-	-	696	646	932	700	643	951
Stage 1	-	-	-	-	-	-	860	779	-	897	806	-
Stage 2	-	-	-	-	-	-	896	803	-	864	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1450	-	-	680	630	925	684	627	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	680	630	-	684	627	-
Stage 1	-	-	-	-	-	-	847	767	-	884	798	-
Stage 2	-	-	-	-	-	-	886	795	-	850	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	9.7	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	784	1484	-	-	1450	-	-	684
HCM Lane V/C Ratio	0.016	0.008	-	-	0.004	-	-	0.009
HCM Control Delay (s)	9.7	7.4	0	-	7.5	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	50	40	5	0	60	20	5	0	0	10	0	10
Future Vol, veh/h	50	40	5	0	60	20	5	0	0	10	0	10
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	10	10	10
Mvmt Flow	72	58	7	0	87	29	7	0	0	14	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	66	0	0	317	325	64	310	313	102
Stage 1	-	-	-	-	-	-	208	208	-	102	102	-
Stage 2	-	-	-	-	-	-	109	117	-	208	211	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	1471	-	-	1549	-	-	640	596	1006	627	589	932
Stage 1	-	-	-	-	-	-	799	734	-	885	795	-
Stage 2	-	-	-	-	-	-	901	803	-	776	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1471	-	-	1548	-	-	605	565	1004	601	558	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	605	565	-	601	558	-
Stage 1	-	-	-	-	-	-	758	696	-	839	794	-
Stage 2	-	-	-	-	-	-	887	802	-	736	676	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0	11	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	605	1471	-	-	1548	-	-	730
HCM Lane V/C Ratio	0.012	0.049	-	-	-	-	-	0.04
HCM Control Delay (s)	11	7.6	0	-	0	-	-	10.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	30	50	5	0	5
Future Vol, veh/h	5	30	50	5	0	5
Conflicting Peds, #/hr	1	0	0	1	1	1
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	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	44	74	7	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	82	0	-	0	138	79
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1528	-	-	-	860	987
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1527	-	-	-	854	985
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	962	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	985
HCM Lane V/C Ratio	0.005	-	-	-	0.007
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Future Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Conflicting Peds, #/hr	1	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	92	68	92	92	92	68	68	92	92	68	68
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	37	0	15	0	0	0	22	0	0	0	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	15	0	0	105	83	7	83	90	3
Stage 1	-	-	-	-	-	-	81	81	-	2	2	-
Stage 2	-	-	-	-	-	-	24	2	-	81	88	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1603	-	-	880	811	1075	904	804	1087
Stage 1	-	-	-	-	-	-	932	832	-	1021	898	-
Stage 2	-	-	-	-	-	-	999	898	-	927	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	829	792	1075	887	785	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	792	-	887	785	-
Stage 1	-	-	-	-	-	-	911	813	-	997	897	-
Stage 2	-	-	-	-	-	-	957	897	-	906	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	0	9.5	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	829	1632	-	-	1603	-	-	1085
HCM Lane V/C Ratio	0.027	0.023	-	-	-	-	-	0.041
HCM Control Delay (s)	9.5	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	550	101	170	832	189	186	343	323	82	126	61
Future Volume (veh/h)	38	550	101	170	832	189	186	343	323	82	126	61
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1900	1881	1881	1881	1900	1900	1900
Adj Flow Rate, veh/h	40	579	106	179	876	199	196	361	340	86	133	64
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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	1	1	1	1	1	1	0	0	0
Cap, veh/h	49	796	145	257	904	205	212	516	551	54	223	107
Arrive On Green	0.03	0.27	0.27	0.07	0.31	0.31	0.12	0.27	0.27	0.03	0.19	0.19
Sat Flow, veh/h	1774	2976	543	3476	2881	654	1792	1881	1578	1810	1205	580
Grp Volume(v), veh/h	40	344	341	179	543	532	196	361	340	86	0	197
Grp Sat Flow(s),veh/h/ln	1774	1770	1750	1738	1787	1748	1792	1881	1578	1810	0	1784
Q Serve(g_s), s	1.5	11.9	12.0	3.4	20.3	20.3	7.3	11.7	12.1	2.0	0.0	6.8
Cycle Q Clear(g_c), s	1.5	11.9	12.0	3.4	20.3	20.3	7.3	11.7	12.1	2.0	0.0	6.8
Prop In Lane	1.00		0.31	1.00		0.37	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	49	473	468	257	561	549	212	516	551	54	0	331
V/C Ratio(X)	0.82	0.73	0.73	0.70	0.97	0.97	0.92	0.70	0.62	1.61	0.00	0.60
Avail Cap(c_a), veh/h	52	549	543	257	561	549	212	723	725	54	0	528
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	0.00	1.00
Uniform Delay (d), s/veh	32.7	22.5	22.5	30.6	22.9	22.9	29.5	22.0	18.3	32.8	0.0	25.2
Incr Delay (d2), s/veh	56.1	3.0	3.2	6.8	29.8	30.4	40.8	0.6	0.4	344.0	0.0	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	1.5	6.2	6.2	1.9	14.6	14.4	6.0	6.1	5.3	6.1	0.0	3.4
LnGrp Delay(d),s/veh	88.8	25.6	25.7	37.3	52.7	53.3	70.3	22.7	18.7	376.8	0.0	25.9
LnGrp LOS	F	C	C	D	D	D	E	C	B	F		C
Approach Vol, veh/h		725			1254			897			283	
Approach Delay, s/veh		29.1			50.7			31.6			132.5	
Approach LOS		C			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	27.2	8.0	24.5	11.0	24.1	14.0	18.5
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 2	* 21	2.0	26.0	* 5	* 21	8.0	20.0
Max Q Clear Time (g_c+I1), s	3.5	22.3	4.0	14.1	5.4	14.0	9.3	8.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.0	3.3	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	47.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	238	43	59	156	42	82	488	78	32	230	97
Future Volume (veh/h)	103	238	43	59	156	42	82	488	78	32	230	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		0.97	0.99		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1900	1900	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	106	245	44	61	161	43	85	503	80	33	237	100
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	0	0	0	2	2	2	1	1	1
Cap, veh/h	447	486	87	388	464	124	512	708	113	340	564	238
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1126	1500	269	1090	1434	383	1026	1565	249	833	1247	526
Grp Volume(v), veh/h	106	0	289	61	0	204	85	0	583	33	0	337
Grp Sat Flow(s),veh/h/ln	1126	0	1770	1090	0	1817	1026	0	1814	833	0	1774
Q Serve(g_s), s	3.2	0.0	5.3	1.9	0.0	3.4	2.5	0.0	10.4	1.3	0.0	5.2
Cycle Q Clear(g_c), s	6.6	0.0	5.3	7.2	0.0	3.4	7.6	0.0	10.4	11.8	0.0	5.2
Prop In Lane	1.00		0.15	1.00		0.21	1.00		0.14	1.00		0.30
Lane Grp Cap(c), veh/h	447	0	573	388	0	588	512	0	821	340	0	802
V/C Ratio(X)	0.24	0.00	0.50	0.16	0.00	0.35	0.17	0.00	0.71	0.10	0.00	0.42
Avail Cap(c_a), veh/h	590	0	797	526	0	819	632	0	1034	438	0	1011
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	11.0	13.9	0.0	10.4	10.0	0.0	8.9	13.6	0.0	7.4
Incr Delay (d2), s/veh	0.3	0.0	0.7	0.2	0.0	0.4	0.2	0.0	1.7	0.1	0.0	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	1.0	0.0	2.7	0.6	0.0	1.8	0.7	0.0	5.6	0.3	0.0	2.6
LnGrp Delay(d),s/veh	13.1	0.0	11.7	14.1	0.0	10.7	10.2	0.0	10.6	13.7	0.0	7.8
LnGrp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		395			265			668			370	
Approach Delay, s/veh		12.1			11.5			10.5			8.3	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		22.7		17.5		22.7		17.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		22.9		18.1		22.9		18.1
Max Q Clear Time (g_c+I1), s		12.4		8.6		13.8		9.2
Green Ext Time (p_c), s		4.8		2.6		4.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	60	0	5	5	695	165	25	625	5
Future Volume (veh/h)	0	0	5	60	0	5	5	695	165	25	625	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.96		0.91	1.00		0.96	1.00		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
Adj Sat Flow, veh/h/ln	1900	1583	1900	1900	1863	1900	1863	1863	1900	1845	1845	1900
Adj Flow Rate, veh/h	0	0	5	62	0	5	5	716	170	26	644	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	20	20	20	2	2	2	2	2	2	3	3	3
Cap, veh/h	0	0	177	330	6	14	527	940	223	360	1190	9
Arrive On Green	0.00	0.00	0.14	0.14	0.00	0.14	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	0	0	1292	1220	47	102	776	1443	343	618	1827	14
Grp Volume(v), veh/h	0	0	5	67	0	0	5	0	886	26	0	649
Grp Sat Flow(s),veh/h/ln	0	0	1292	1369	0	0	776	0	1785	618	0	1841
Q Serve(g_s), s	0.0	0.0	0.1	1.7	0.0	0.0	0.1	0.0	14.6	1.3	0.0	8.1
Cycle Q Clear(g_c), s	0.0	0.0	0.1	1.8	0.0	0.0	8.2	0.0	14.6	15.9	0.0	8.1
Prop In Lane	0.00		1.00	0.93		0.07	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	177	350	0	0	527	0	1163	360	0	1199
V/C Ratio(X)	0.00	0.00	0.03	0.19	0.00	0.00	0.01	0.00	0.76	0.07	0.00	0.54
Avail Cap(c_a), veh/h	0	0	550	743	0	0	623	0	1383	436	0	1426
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	15.9	16.6	0.0	0.0	6.2	0.0	5.1	10.6	0.0	4.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	2.1	0.1	0.0	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	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	7.6	0.2	0.0	4.1
LnGrp Delay(d),s/veh	0.0	0.0	16.0	16.9	0.0	0.0	6.2	0.0	7.2	10.7	0.0	4.4
LnGrp LOS			B	B			A		A	B		A
Approach Vol, veh/h		5			67			891			675	
Approach Delay, s/veh		15.9			16.9			7.2			4.6	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.2		10.3		32.2		10.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		16.6		2.1		17.9		3.8
Green Ext Time (p_c), s		10.4		0.3		9.8		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	438	3	8	244	287	3	15	19	168	2	140
Future Volume (veh/h)	408	438	3	8	244	287	3	15	19	168	2	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1900	1863	1900	1900	1845	1845
Adj Flow Rate, veh/h	434	466	3	9	260	305	3	16	20	179	2	149
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	346	1082	7	21	749	481	91	116	130	0	279	231
Arrive On Green	0.19	0.58	0.58	0.01	0.40	0.40	0.15	0.15	0.15	0.00	0.15	0.15
Sat Flow, veh/h	1792	1867	12	1792	1881	1552	49	770	862	0	1845	1528
Grp Volume(v), veh/h	434	0	469	9	260	305	39	0	0	0	2	149
Grp Sat Flow(s),veh/h/ln	1792	0	1879	1792	1881	1552	1682	0	0	0	1845	1528
Q Serve(g_s), s	9.0	0.0	6.5	0.2	4.5	12.0	0.0	0.0	0.0	0.0	0.0	4.3
Cycle Q Clear(g_c), s	9.0	0.0	6.5	0.2	4.5	12.0	0.9	0.0	0.0	0.0	0.0	4.3
Prop In Lane	1.00		0.01	1.00		1.00	0.08		0.51	0.00		1.00
Lane Grp Cap(c), veh/h	346	0	1089	21	749	481	337	0	0	0	279	231
V/C Ratio(X)	1.25	0.00	0.43	0.43	0.35	0.63	0.12	0.00	0.00	0.00	0.01	0.65
Avail Cap(c_a), veh/h	346	0	1129	192	969	662	477	0	0	0	832	689
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	5.5	22.9	9.8	29.0	17.2	0.0	0.0	0.0	16.8	18.6
Incr Delay (d2), s/veh	135.9	0.0	0.3	13.0	0.3	1.4	0.2	0.0	0.0	0.0	0.0	3.0
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	17.4	0.0	3.3	0.2	2.4	5.3	0.4	0.0	0.0	0.0	0.0	2.0
LnGrp Delay(d),s/veh	154.7	0.0	5.8	35.8	10.1	30.4	17.3	0.0	0.0	0.0	16.8	21.6
LnGrp LOS	F		A	D	B	C	B				B	C
Approach Vol, veh/h		903			574			39			151	
Approach Delay, s/veh		77.3			21.3			17.3			21.6	
Approach LOS		E			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	22.6	0.0	11.0	4.5	31.0		11.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	24.0	6.0	11.0	5.0	28.0		21.0
Max Q Clear Time (g_c+I1), s	11.0	14.0	0.0	2.9	2.2	8.5		6.3
Green Ext Time (p_c), s	0.0	4.1	0.0	0.4	0.0	5.7		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	427	82	250	284	190	122	447	253	228	359	106
Future Volume (veh/h)	227	427	82	250	284	190	122	447	253	228	359	106
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.93	1.00		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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1863	1863	1863	1863	1863	1863	1845	1845	1900
Adj Flow Rate, veh/h	234	440	85	258	293	196	126	461	261	235	370	109
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	256	633	650	221	593	681	147	507	600	219	423	125
Arrive On Green	0.14	0.34	0.34	0.12	0.32	0.32	0.08	0.27	0.27	0.12	0.31	0.31
Sat Flow, veh/h	1792	1881	1536	1774	1863	1521	1774	1863	1478	1757	1347	397
Grp Volume(v), veh/h	234	440	85	258	293	196	126	461	261	235	0	479
Grp Sat Flow(s),veh/h/ln	1792	1881	1536	1774	1863	1521	1774	1863	1478	1757	0	1744
Q Serve(g_s), s	20.0	31.4	5.3	19.3	19.7	12.8	10.9	37.1	20.0	19.3	0.0	40.3
Cycle Q Clear(g_c), s	20.0	31.4	5.3	19.3	19.7	12.8	10.9	37.1	20.0	19.3	0.0	40.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	256	633	650	221	593	681	147	507	600	219	0	548
V/C Ratio(X)	0.92	0.69	0.13	1.17	0.49	0.29	0.86	0.91	0.44	1.07	0.00	0.87
Avail Cap(c_a), veh/h	281	633	650	221	593	681	164	598	672	219	0	548
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	0.90	0.00	0.90
Uniform Delay (d), s/veh	65.5	44.5	27.6	67.8	42.7	27.6	70.2	54.5	34.2	67.8	0.0	50.3
Incr Delay (d2), s/veh	31.0	6.2	0.4	113.4	2.9	1.1	31.4	16.2	0.5	79.0	0.0	13.5
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	12.1	17.5	2.3	16.4	10.7	5.6	6.6	21.4	8.2	14.2	0.0	21.5
LnGrp Delay(d),s/veh	96.5	50.7	28.1	181.2	45.6	28.7	101.6	70.7	34.7	146.8	0.0	63.8
LnGrp LOS	F	D	C	F	D	C	F	E	C	F		E
Approach Vol, veh/h		759			747			848			714	
Approach Delay, s/veh		62.3			88.0			64.2			91.1	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.8	54.8	25.0	47.4	25.0	57.6	18.6	53.9
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 50	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	22.0	21.7	21.3	39.1	21.3	33.4	12.9	42.3
Green Ext Time (p_c), s	0.2	4.7	0.0	3.1	0.0	4.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.8
HCM 2010 LOS	E

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	237	284	910	168	184	670
Future Volume (veh/h)	237	284	910	168	184	670
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	242	290	929	171	188	684
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	169	202	964	801	229	1224
Arrive On Green	0.22	0.22	0.52	0.52	0.07	0.66
Sat Flow, veh/h	763	915	1863	1547	1774	1863
Grp Volume(v), veh/h	533	0	929	171	188	684
Grp Sat Flow(s),veh/h/ln	1682	0	1863	1547	1774	1863
Q Serve(g_s), s	20.0	0.0	43.4	5.4	4.4	18.0
Cycle Q Clear(g_c), s	20.0	0.0	43.4	5.4	4.4	18.0
Prop In Lane	0.45	0.54		1.00	1.00	
Lane Grp Cap(c), veh/h	372	0	964	801	229	1224
V/C Ratio(X)	1.43	0.00	0.96	0.21	0.82	0.56
Avail Cap(c_a), veh/h	372	0	989	821	374	1224
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	35.2	0.0	21.0	11.8	20.4	8.4
Incr Delay (d2), s/veh	209.8	0.0	20.1	0.1	7.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.9	0.0	27.6	6.4	2.9	9.3
LnGrp Delay(d),s/veh	245.0	0.0	41.1	12.0	27.8	9.0
LnGrp LOS	F		D	B	C	A
Approach Vol, veh/h	533		1100			872
Approach Delay, s/veh	245.0		36.5			13.0
Approach LOS	F		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		65.4		25.0	12.6	52.8		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		48.0		20.0	14.0	48.0		
Max Q Clear Time (g_c+I1), s		20.0		22.0	6.4	45.4		
Green Ext Time (p_c), s		15.8		0.0	0.3	1.4		

Intersection Summary	
HCM 2010 Ctrl Delay	72.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	494	381	250	378	29	215	459	247	8	77	177
Future Volume (veh/h)	300	494	381	250	378	29	215	459	247	8	77	177
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1900	1881	1881	1881	1881	1881	1900
Adj Flow Rate, veh/h	312	515	397	260	394	30	224	478	0	8	80	184
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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	1	1	1
Cap, veh/h	431	630	535	338	542	41	262	651	553	11	105	240
Arrive On Green	0.14	0.33	0.33	0.12	0.31	0.31	0.15	0.35	0.00	0.01	0.21	0.21
Sat Flow, veh/h	1792	1881	1599	1792	1727	131	1792	1881	1599	1792	508	1168
Grp Volume(v), veh/h	312	515	397	260	0	424	224	478	0	8	0	264
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1792	0	1858	1792	1881	1599	1792	0	1675
Q Serve(g_s), s	11.4	24.8	21.7	9.5	0.0	20.1	12.1	22.0	0.0	0.4	0.0	14.7
Cycle Q Clear(g_c), s	11.4	24.8	21.7	9.5	0.0	20.1	12.1	22.0	0.0	0.4	0.0	14.7
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	431	630	535	338	0	584	262	651	553	11	0	345
V/C Ratio(X)	0.72	0.82	0.74	0.77	0.00	0.73	0.86	0.73	0.00	0.75	0.00	0.77
Avail Cap(c_a), veh/h	514	761	647	404	0	752	406	666	566	89	0	474
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	30.1	29.1	22.6	0.0	30.1	41.2	28.4	0.0	49.1	0.0	37.0
Incr Delay (d2), s/veh	4.1	5.9	3.7	7.3	0.0	2.5	10.5	4.1	0.0	67.1	0.0	5.0
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	6.0	13.9	10.1	5.3	0.0	10.7	6.7	12.2	0.0	0.4	0.0	7.3
LnGrp Delay(d),s/veh	24.9	36.0	32.8	29.9	0.0	32.7	51.7	32.5	0.0	116.2	0.0	42.0
LnGrp LOS	C	D	C	C		C	D	C		F		D
Approach Vol, veh/h		1224			684			702			272	
Approach Delay, s/veh		32.2			31.6			38.6			44.1	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.4	36.1	5.2	39.2	16.4	38.1	19.0	25.4
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	13.4	40.0	4.9	35.0	15.4	40.0	22.4	28.0
Max Q Clear Time (g_c+I1), s	13.4	22.1	2.4	24.0	11.5	26.8	14.1	16.7
Green Ext Time (p_c), s	0.4	7.4	0.0	3.6	0.3	6.3	0.4	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	550	0	66	0	2	0	412	374	0	0	174	502
Future Volume (vph)	550	0	66	0	2	0	412	374	0	0	174	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		1.00		1.00	1.00			0.92	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1779		1599		1910		1787	1881			1636	1504
Flt Permitted	0.76		1.00		1.00		0.21	1.00			1.00	1.00
Satd. Flow (perm)	1416		1599		1910		388	1881			1636	1504
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	573	0	69	0	2	0	429	390	0	0	181	523
RTOR Reduction (vph)	0	0	47	0	0	0	0	0	0	0	28	269
Lane Group Flow (vph)	573	0	22	0	2	0	429	390	0	0	336	71
Confl. Peds. (#/hr)	5					5			7	7		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	1%	1%	1%	89%	89%	89%	1%	1%	1%	2%	2%	2%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	29.1		29.1		0.9		37.9	42.5			19.4	19.4
Effective Green, g (s)	29.1		29.1		0.9		37.9	42.5			19.4	19.4
Actuated g/C Ratio	0.31		0.31		0.01		0.41	0.46			0.21	0.21
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	445		503		18		438	864			343	315
v/s Ratio Prot					c0.00		c0.20	0.21			c0.21	
v/s Ratio Perm	c0.40		0.01				0.21					0.05
v/c Ratio	1.29		0.04		0.11		0.98	0.45			0.98	0.23
Uniform Delay, d1	31.7		22.0		45.4		24.3	17.0			36.4	30.3
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	145.5		0.0		2.7		37.2	0.4			43.2	0.4
Delay (s)	177.2		22.1		48.1		61.4	17.4			79.5	30.7
Level of Service	F		C		D		E	B			E	C
Approach Delay (s)		160.6			48.1			40.5			55.9	
Approach LOS		F			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	81.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	92.5	Sum of lost time (s)	20.8
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	436	56	168	600	122	135	339	128	82	163	57
Future Volume (veh/h)	149	436	56	168	600	122	135	339	128	82	163	57
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	155	454	58	175	625	127	141	353	133	85	170	59
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	0	0	0	0	0	0
Cap, veh/h	264	491	63	304	466	95	464	380	143	266	373	130
Arrive On Green	0.09	0.30	0.30	0.09	0.31	0.31	0.08	0.29	0.29	0.07	0.28	0.28
Sat Flow, veh/h	1792	1634	209	1792	1516	308	1810	1309	493	1810	1345	467
Grp Volume(v), veh/h	155	0	512	175	0	752	141	0	486	85	0	229
Grp Sat Flow(s),veh/h/ln	1792	0	1842	1792	0	1824	1810	0	1803	1810	0	1812
Q Serve(g_s), s	3.8	0.0	17.6	4.3	0.0	20.1	3.5	0.0	17.2	2.1	0.0	6.8
Cycle Q Clear(g_c), s	3.8	0.0	17.6	4.3	0.0	20.1	3.5	0.0	17.2	2.1	0.0	6.8
Prop In Lane	1.00		0.11	1.00		0.17	1.00		0.27	1.00		0.26
Lane Grp Cap(c), veh/h	264	0	554	304	0	560	464	0	523	266	0	503
V/C Ratio(X)	0.59	0.00	0.92	0.58	0.00	1.34	0.30	0.00	0.93	0.32	0.00	0.46
Avail Cap(c_a), veh/h	301	0	560	333	0	560	505	0	523	329	0	526
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	16.4	0.0	22.2	16.1	0.0	22.7	14.8	0.0	22.6	16.8	0.0	19.6
Incr Delay (d2), s/veh	1.0	0.0	20.7	1.0	0.0	165.7	0.1	0.0	22.8	0.3	0.0	0.2
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	1.9	0.0	12.1	2.2	0.0	35.7	1.7	0.0	11.8	1.0	0.0	3.4
LnGrp Delay(d),s/veh	17.5	0.0	42.8	17.2	0.0	188.4	15.0	0.0	45.4	17.0	0.0	19.8
LnGrp LOS	B		D	B		F	B		D	B		B
Approach Vol, veh/h		667			927			627			314	
Approach Delay, s/veh		36.9			156.0			38.6			19.0	
Approach LOS		D			F			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	24.6	8.2	23.5	9.6	24.2	9.0	22.7
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.1	19.9	7.0	19.0
Max Q Clear Time (g_c+I1), s	5.8	22.1	4.1	19.2	6.3	19.6	5.5	8.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	78.7
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	50	90	985	40	55	580
Future Vol, veh/h	50	90	985	40	55	580
Conflicting Peds, #/hr	11	6	0	11	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	53	96	1048	43	59	617

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1825	1086	0	0	1101	0
Stage 1	1080	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	85	263	-	-	634	-
Stage 1	326	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	75	259	-	-	630	-
Mov Cap-2 Maneuver	75	-	-	-	-	-
Stage 1	323	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	62.8	0	1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	75	259	630	-
HCM Lane V/C Ratio	-	-	0.709	0.37	0.093	-
HCM Control Delay (s)	-	-	127.6	26.8	11.3	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	3.3	1.6	0.3	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	10	965	5	5	655
Future Vol, veh/h	5	10	965	5	5	655
Conflicting Peds, #/hr	4	6	0	4	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	6	11	1084	6	6	736

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1844	1099	0	0	1096	0
Stage 1	1093	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	83	261	-	-	637	-
Stage 1	324	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	81	258	-	-	633	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	464	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.2	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	239	633	-
HCM Lane V/C Ratio	-	-	0.071	0.009	-
HCM Control Delay (s)	-	-	21.2	10.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	20	40	925	20	55	585
Future Vol, veh/h	20	40	925	20	55	585
Conflicting Peds, #/hr	6	6	0	6	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	22	44	1028	22	61	650

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1823	1051	0	0	1056	0
Stage 1	1045	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Critical Hdwy	7.1	6.2	-	-	4.12	-
Critical Hdwy Stg 1	6.1	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	60	278	-	-	659	-
Stage 1	279	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	55	275	-	-	655	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	279	-	-	-	-	-
Stage 2	353	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.5	0	1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	226	655	-
HCM Lane V/C Ratio	-	-	0.295	0.093	-
HCM Control Delay (s)	-	-	27.5	11.1	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	80	0	0	105	15	5	0	0	10	0	5
Future Vol, veh/h	5	80	0	0	105	15	5	0	0	10	0	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	1	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	1	1	1	20	20	20	0	0	0
Mvmt Flow	6	91	0	0	119	17	6	0	0	11	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	138	0	0	92	0	0	236	241	94	234	233	132
Stage 1	-	-	-	-	-	-	103	103	-	130	130	-
Stage 2	-	-	-	-	-	-	133	138	-	104	103	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.3	6.7	6.4	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.68	4.18	3.48	3.5	4	3.3
Pot Cap-1 Maneuver	1458	-	-	1509	-	-	682	630	916	725	671	923
Stage 1	-	-	-	-	-	-	861	776	-	878	792	-
Stage 2	-	-	-	-	-	-	829	749	-	907	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1506	-	-	674	626	913	720	666	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	674	626	-	720	666	-
Stage 1	-	-	-	-	-	-	857	772	-	873	790	-
Stage 2	-	-	-	-	-	-	822	748	-	902	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.4	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	674	1455	-	-	1506	-	-	776
HCM Lane V/C Ratio	0.008	0.004	-	-	-	-	-	0.022
HCM Control Delay (s)	10.4	7.5	0	-	0	-	-	9.7
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	85	5	5	115	5	5	0	5	5	0	5
Future Vol, veh/h	0	85	5	5	115	5	5	0	5	5	0	5
Conflicting Peds, #/hr	3	0	1	1	0	3	1	0	1	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	0	94	6	6	128	6	6	0	6	6	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	101	0	0	245	245	101	248	246	137
Stage 1	-	-	-	-	-	-	98	98	-	145	145	-
Stage 2	-	-	-	-	-	-	147	147	-	103	101	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1461	-	-	1498	-	-	713	661	960	710	660	917
Stage 1	-	-	-	-	-	-	913	818	-	863	781	-
Stage 2	-	-	-	-	-	-	860	779	-	908	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1457	-	-	1494	-	-	704	656	956	700	655	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	704	656	-	700	655	-
Stage 1	-	-	-	-	-	-	912	817	-	861	776	-
Stage 2	-	-	-	-	-	-	849	774	-	900	814	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	9.5	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	811	1457	-	-	1494	-	-	792
HCM Lane V/C Ratio	0.014	-	-	-	0.004	-	-	0.014
HCM Control Delay (s)	9.5	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	75	5	0	75	5	5	0	0	10	0	35
Future Vol, veh/h	15	75	5	0	75	5	5	0	0	10	0	35
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	17	83	6	0	83	6	6	0	0	11	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	89	0	0	228	211	89	211	211	92
Stage 1	-	-	-	-	-	-	119	119	-	89	89	-
Stage 2	-	-	-	-	-	-	109	92	-	122	122	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1515	-	-	1513	-	-	731	690	975	750	690	971
Stage 1	-	-	-	-	-	-	890	801	-	923	825	-
Stage 2	-	-	-	-	-	-	901	823	-	887	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1511	-	-	1509	-	-	693	680	972	739	680	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	693	680	-	739	680	-
Stage 1	-	-	-	-	-	-	879	791	-	909	823	-
Stage 2	-	-	-	-	-	-	862	821	-	874	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	10.2	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	1511	-	-	1509	-	-	904
HCM Lane V/C Ratio	0.008	0.011	-	-	-	-	-	0.055
HCM Control Delay (s)	10.2	7.4	0	-	0	-	-	9.2
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	60	45	5	5	15
Future Vol, veh/h	5	60	45	5	5	15
Conflicting Peds, #/hr	2	0	0	1	1	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	6	69	52	6	6	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	138	59
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	81	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1558	-	-	-	860	1012
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	853	1008
Mov Cap-2 Maneuver	-	-	-	-	853	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	964
HCM Lane V/C Ratio	0.004	-	-	-	0.024
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Future Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Conflicting Peds, #/hr	3	0	6	0	0	0	6	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	92	85	92	92	92	85	85	92	92	85	85
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	3	3
Mvmt Flow	53	0	12	0	0	0	6	0	0	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	18	0	0	146	122	12	116	128	10
Stage 1	-	-	-	-	-	-	118	118	-	4	4	-
Stage 2	-	-	-	-	-	-	28	4	-	112	124	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4.027	3.327
Pot Cap-1 Maneuver	1631	-	-	1599	-	-	827	772	1069	861	761	1068
Stage 1	-	-	-	-	-	-	891	802	-	1018	890	-
Stage 2	-	-	-	-	-	-	994	897	-	893	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1599	-	-	766	740	1063	837	730	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	740	-	837	730	-
Stage 1	-	-	-	-	-	-	857	771	-	982	887	-
Stage 2	-	-	-	-	-	-	950	894	-	864	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	9.7	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1622	-	-	1599	-	-	1059
HCM Lane V/C Ratio	0.008	0.033	-	-	-	-	-	0.039
HCM Control Delay (s)	9.7	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	595	160	400	755	165	80	110	105	255	275	80
Future Volume (veh/h)	40	595	160	400	755	165	80	110	105	255	275	80
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1810	1810	1900	1827	1827	1827	1845	1845	1900
Adj Flow Rate, veh/h	43	633	170	426	803	176	85	117	112	271	293	85
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	4	4	4	5	5	5	4	4	4	3	3	3
Cap, veh/h	68	710	191	384	950	208	108	319	445	247	347	101
Arrive On Green	0.04	0.26	0.26	0.11	0.34	0.34	0.06	0.17	0.17	0.14	0.25	0.25
Sat Flow, veh/h	1740	2702	725	3343	2801	614	1740	1827	1526	1757	1371	398
Grp Volume(v), veh/h	43	406	397	426	493	486	85	117	112	271	0	378
Grp Sat Flow(s),veh/h/ln	1740	1736	1691	1672	1719	1696	1740	1827	1526	1757	0	1769
Q Serve(g_s), s	1.9	17.6	17.7	9.0	20.8	20.8	3.8	4.4	4.4	11.0	0.0	15.9
Cycle Q Clear(g_c), s	1.9	17.6	17.7	9.0	20.8	20.8	3.8	4.4	4.4	11.0	0.0	15.9
Prop In Lane	1.00		0.43	1.00		0.36	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	68	456	445	384	583	575	108	319	445	247	0	448
V/C Ratio(X)	0.64	0.89	0.89	1.11	0.85	0.85	0.78	0.37	0.25	1.10	0.00	0.84
Avail Cap(c_a), veh/h	111	488	475	384	583	575	200	677	744	247	0	701
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	0.00	1.00
Uniform Delay (d), s/veh	37.1	27.8	27.8	34.6	24.0	24.0	36.2	28.5	21.3	33.6	0.0	27.8
Incr Delay (d2), s/veh	3.7	16.6	17.2	78.4	10.5	10.6	4.6	0.3	0.1	85.8	0.0	3.2
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	1.0	10.6	10.4	8.3	11.6	11.4	2.0	2.2	1.9	11.2	0.0	8.2
LnGrp Delay(d),s/veh	40.7	44.3	45.0	113.0	34.5	34.6	40.8	28.7	21.4	119.5	0.0	30.9
LnGrp LOS	D	D	D	F	C	C	D	C	C	F		C
Approach Vol, veh/h		846			1405			314			649	
Approach Delay, s/veh		44.5			58.3			29.4			67.9	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	32.5	17.0	19.7	15.0	26.6	10.9	25.8
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 26	11.0	29.0	* 9	* 22	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.9	22.8	13.0	6.4	11.0	19.7	5.8	17.9
Green Ext Time (p_c), s	0.0	2.0	0.0	1.6	0.0	0.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	145	110	140	255	40	85	220	25	40	415	85
Future Volume (veh/h)	75	145	110	140	255	40	85	220	25	40	415	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	0.99		0.98	0.99		0.98
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
Adj Sat Flow, veh/h/ln	1792	1792	1900	1881	1881	1900	1696	1696	1900	1810	1810	1900
Adj Flow Rate, veh/h	82	158	120	152	277	43	92	239	27	43	451	92
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	1	1	1	12	12	12	5	5	5
Cap, veh/h	402	341	259	427	579	90	297	632	71	503	615	125
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1006	935	710	1092	1586	246	777	1494	169	1064	1453	296
Grp Volume(v), veh/h	82	0	278	152	0	320	92	0	266	43	0	543
Grp Sat Flow(s),veh/h/ln	1006	0	1646	1092	0	1832	777	0	1663	1064	0	1750
Q Serve(g_s), s	2.9	0.0	5.5	5.2	0.0	5.7	4.8	0.0	4.7	1.2	0.0	11.0
Cycle Q Clear(g_c), s	8.6	0.0	5.5	10.7	0.0	5.7	15.8	0.0	4.7	5.9	0.0	11.0
Prop In Lane	1.00		0.43	1.00		0.13	1.00		0.10	1.00		0.17
Lane Grp Cap(c), veh/h	402	0	601	427	0	669	297	0	703	503	0	740
V/C Ratio(X)	0.20	0.00	0.46	0.36	0.00	0.48	0.31	0.00	0.38	0.09	0.00	0.73
Avail Cap(c_a), veh/h	462	0	699	493	0	778	298	0	706	505	0	743
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	13.7	0.0	10.3	14.4	0.0	10.4	16.8	0.0	8.4	10.4	0.0	10.2
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.5	0.0	0.5	0.6	0.0	0.3	0.1	0.0	3.8
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	0.8	0.0	2.6	1.6	0.0	2.9	1.1	0.0	2.1	0.4	0.0	6.1
LnGrp Delay(d),s/veh	13.9	0.0	10.8	14.9	0.0	10.9	17.4	0.0	8.7	10.5	0.0	14.0
LnGrp LOS	B		B	B		B	B		A	B		B
Approach Vol, veh/h		360			472			358			586	
Approach Delay, s/veh		11.5			12.2			11.0			13.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		22.4		20.0		22.4		20.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		17.8		10.6		13.0		12.7
Green Ext Time (p_c), s		0.1		2.9		2.6		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	85	0	20	5	715	40	5	570	0
Future Volume (veh/h)	0	0	5	85	0	20	5	715	40	5	570	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.93		0.90	1.00		0.94	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
Adj Sat Flow, veh/h/ln	1900	950	1900	1900	1827	1900	1810	1810	1900	1792	1792	0
Adj Flow Rate, veh/h	0	0	6	100	0	24	6	841	47	6	671	0
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	100	100	100	4	4	4	5	5	5	6	6	0
Cap, veh/h	0	0	157	344	14	54	420	1023	57	277	1084	0
Arrive On Green	0.00	0.00	0.21	0.21	0.00	0.21	0.60	0.60	0.60	0.60	0.60	0.00
Sat Flow, veh/h	0	0	750	1001	66	256	739	1692	95	600	1792	0
Grp Volume(v), veh/h	0	0	6	124	0	0	6	0	888	6	671	0
Grp Sat Flow(s),veh/h/ln	0	0	750	1323	0	0	739	0	1786	600	1792	0
Q Serve(g_s), s	0.0	0.0	0.3	3.4	0.0	0.0	0.3	0.0	19.0	0.4	11.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	3.9	0.0	0.0	11.7	0.0	19.0	19.3	11.5	0.0
Prop In Lane	0.00		1.00	0.81		0.19	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	157	411	0	0	420	0	1080	277	1084	0
V/C Ratio(X)	0.00	0.00	0.04	0.30	0.00	0.00	0.01	0.00	0.82	0.02	0.62	0.00
Avail Cap(c_a), veh/h	0	0	280	624	0	0	474	0	1211	321	1215	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	15.3	16.6	0.0	0.0	9.8	0.0	7.5	15.1	6.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	4.3	0.0	0.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	1.5	0.0	0.0	0.1	0.0	10.4	0.1	5.8	0.0
LnGrp Delay(d),s/veh	0.0	0.0	15.4	17.0	0.0	0.0	9.8	0.0	11.8	15.2	6.9	0.0
LnGrp LOS			B	B			A		B	B	A	
Approach Vol, veh/h		6			124			894			677	
Approach Delay, s/veh		15.4			17.0			11.8			6.9	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		33.9		14.7		33.9		14.7
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		21.0		2.3		21.3		5.9
Green Ext Time (p_c), s		8.2		0.6		8.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	350	5	10	405	165	5	5	10	335	5	230
Future Volume (veh/h)	85	350	5	10	405	165	5	5	10	335	5	230
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.97		0.96	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1845	1845	1845	1900	1610	1900	1900	1845	1845
Adj Flow Rate, veh/h	97	398	6	11	460	188	6	6	11	381	6	261
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	3	3	3	18	18	18	3	3	3
Cap, veh/h	158	816	12	25	698	450	152	135	176	0	515	409
Arrive On Green	0.09	0.45	0.45	0.01	0.38	0.38	0.28	0.28	0.28	0.00	0.28	0.28
Sat Flow, veh/h	1740	1794	27	1757	1845	1539	204	483	629	0	1845	1466
Grp Volume(v), veh/h	97	0	404	11	460	188	23	0	0	0	6	261
Grp Sat Flow(s),veh/h/ln	1740	0	1821	1757	1845	1539	1315	0	0	0	1845	1466
Q Serve(g_s), s	2.6	0.0	7.4	0.3	9.8	8.8	0.0	0.0	0.0	0.0	0.1	7.4
Cycle Q Clear(g_c), s	2.6	0.0	7.4	0.3	9.8	8.8	0.6	0.0	0.0	0.0	0.1	7.4
Prop In Lane	1.00		0.01	1.00		1.00	0.26		0.48	0.00		1.00
Lane Grp Cap(c), veh/h	158	0	829	25	698	450	462	0	0	0	515	409
V/C Ratio(X)	0.61	0.00	0.49	0.44	0.66	0.42	0.05	0.00	0.00	0.00	0.01	0.64
Avail Cap(c_a), veh/h	766	0	1528	184	929	643	462	0	0	0	813	646
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	9.1	23.3	12.3	38.4	12.6	0.0	0.0	0.0	12.4	15.1
Incr Delay (d2), s/veh	3.8	0.0	0.4	11.7	1.1	0.6	0.0	0.0	0.0	0.0	0.0	1.7
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	1.4	0.0	3.8	0.2	5.2	3.8	0.2	0.0	0.0	0.0	0.1	3.2
LnGrp Delay(d),s/veh	24.7	0.0	9.5	35.0	13.4	39.0	12.6	0.0	0.0	0.0	12.4	16.7
LnGrp LOS	C		A	D	B	D	B				B	B
Approach Vol, veh/h		501			659			23			267	
Approach Delay, s/veh		12.5			21.0			12.6			16.6	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	22.0	0.0	17.3	4.7	25.7		17.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	24.0	6.0	11.0	5.0	40.0		21.0
Max Q Clear Time (g_c+I1), s	4.6	11.8	0.0	2.6	2.3	9.4		9.4
Green Ext Time (p_c), s	0.2	4.9	0.0	0.7	0.0	7.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	400	220	460	420	380	170	225	210	115	415	135
Future Volume (veh/h)	160	400	220	460	420	380	170	225	210	115	415	135
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1810	1810	1810	1810	1810	1900
Adj Flow Rate, veh/h	180	449	247	517	472	427	191	253	236	129	466	152
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	206	604	652	251	654	671	183	497	630	153	334	109
Arrive On Green	0.12	0.33	0.33	0.14	0.35	0.35	0.11	0.27	0.27	0.09	0.26	0.26
Sat Flow, veh/h	1740	1827	1476	1757	1845	1497	1723	1810	1494	1723	1296	423
Grp Volume(v), veh/h	180	449	247	517	472	427	191	253	236	129	0	618
Grp Sat Flow(s),veh/h/ln	1740	1827	1476	1757	1845	1497	1723	1810	1494	1723	0	1719
Q Serve(g_s), s	13.7	29.5	15.3	19.3	30.0	30.0	14.3	15.9	14.7	10.0	0.0	34.8
Cycle Q Clear(g_c), s	13.7	29.5	15.3	19.3	30.0	30.0	14.3	15.9	14.7	10.0	0.0	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	206	604	652	251	654	671	183	497	630	153	0	443
V/C Ratio(X)	0.87	0.74	0.38	2.06	0.72	0.64	1.05	0.51	0.37	0.84	0.00	1.39
Avail Cap(c_a), veh/h	313	604	652	251	654	671	183	497	630	246	0	443
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	0.84	0.00	0.84
Uniform Delay (d), s/veh	58.5	40.1	25.8	57.9	37.8	29.2	60.3	41.3	27.2	60.5	0.0	50.1
Incr Delay (d2), s/veh	15.6	8.1	1.7	489.9	6.8	4.6	79.3	0.9	0.4	11.4	0.0	188.9
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	7.5	16.2	6.6	43.5	16.4	13.2	10.8	8.1	6.1	5.2	0.0	39.7
LnGrp Delay(d),s/veh	74.1	48.2	27.4	547.7	44.5	33.8	139.7	42.1	27.6	71.9	0.0	239.0
LnGrp LOS	E	D	C	F	D	C	F	D	C	E		F
Approach Vol, veh/h		876			1416			680			747	
Approach Delay, s/veh		47.7			225.0			64.5			210.1	
Approach LOS		D			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.7	53.3	17.7	42.3	25.0	50.0	20.0	40.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 25	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	15.7	32.0	12.0	17.9	21.3	31.5	16.3	36.8
Green Ext Time (p_c), s	0.3	1.9	0.2	3.6	0.0	7.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	150.9
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	465	405	890	225	460	960
Future Volume (veh/h)	465	405	890	225	460	960
Number	7	14	6	16	5	2
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
Adj Sat Flow, veh/h/ln	1827	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	505	440	967	245	500	1043
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	3	3
Cap, veh/h	207	180	738	627	374	1172
Arrive On Green	0.24	0.24	0.40	0.40	0.16	0.64
Sat Flow, veh/h	880	766	1845	1568	1757	1845
Grp Volume(v), veh/h	946	0	967	245	500	1043
Grp Sat Flow(s),veh/h/ln	1648	0	1845	1568	1757	1845
Q Serve(g_s), s	20.0	0.0	34.0	9.4	14.0	40.3
Cycle Q Clear(g_c), s	20.0	0.0	34.0	9.4	14.0	40.3
Prop In Lane	0.53	0.47		1.00	1.00	
Lane Grp Cap(c), veh/h	388	0	738	627	374	1172
V/C Ratio(X)	2.44	0.00	1.31	0.39	1.34	0.89
Avail Cap(c_a), veh/h	388	0	738	627	374	1172
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	32.5	0.0	25.5	18.1	25.5	13.0
Incr Delay (d2), s/veh	655.8	0.0	149.4	0.4	168.7	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	79.7	0.0	47.8	9.3	26.3	23.1
LnGrp Delay(d),s/veh	688.3	0.0	174.9	18.5	194.2	21.7
LnGrp LOS	F		F	B	F	C
Approach Vol, veh/h	946		1212			1543
Approach Delay, s/veh	688.3		143.3			77.6
Approach LOS	F		F			E

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		25.0	20.0	40.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		49.0		20.0	14.0	34.0		
Max Q Clear Time (g_c+I1), s		42.3		22.0	16.0	36.0		
Green Ext Time (p_c), s		6.0		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	255.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	520	465	275	655	5	310	125	165	10	275	400
Future Volume (veh/h)	205	520	465	275	655	5	310	125	165	10	275	400
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1863	1863	1900	1776	1776	1776	1863	1863	1900
Adj Flow Rate, veh/h	225	571	511	302	720	5	341	137	0	11	302	440
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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, %	4	4	4	2	2	2	7	7	7	2	2	2
Cap, veh/h	255	451	384	284	483	3	373	817	695	14	166	242
Arrive On Green	0.11	0.25	0.25	0.13	0.26	0.26	0.22	0.46	0.00	0.01	0.25	0.25
Sat Flow, veh/h	1740	1827	1553	1774	1847	13	1691	1776	1509	1774	671	978
Grp Volume(v), veh/h	225	571	511	302	0	725	341	137	0	11	0	742
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1774	0	1860	1691	1776	1509	1774	0	1650
Q Serve(g_s), s	11.5	30.0	30.0	15.4	0.0	31.7	23.9	5.5	0.0	0.8	0.0	30.0
Cycle Q Clear(g_c), s	11.5	30.0	30.0	15.4	0.0	31.7	23.9	5.5	0.0	0.8	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	255	451	384	284	0	486	373	817	695	14	0	408
V/C Ratio(X)	0.88	1.26	1.33	1.06	0.00	1.49	0.91	0.17	0.00	0.81	0.00	1.82
Avail Cap(c_a), veh/h	280	451	384	284	0	486	563	817	695	152	0	408
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	45.7	45.7	35.5	0.0	44.8	46.2	19.2	0.0	60.1	0.0	45.7
Incr Delay (d2), s/veh	24.8	135.9	166.2	70.7	0.0	231.7	14.2	0.1	0.0	67.9	0.0	378.6
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	7.3	32.1	30.5	15.1	0.0	47.5	12.7	2.7	0.0	0.6	0.0	56.5
LnGrp Delay(d),s/veh	57.1	181.6	211.9	106.3	0.0	276.6	60.4	19.3	0.0	128.1	0.0	424.3
LnGrp LOS	E	F	F	F		F	E	B		F		F
Approach Vol, veh/h		1307			1027			478			753	
Approach Delay, s/veh		172.0			226.5			48.6			420.0	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.3	36.7	5.5	60.9	20.0	35.0	31.4	35.0
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	15.4	30.0	10.4	30.0	15.4	30.0	40.4	30.0
Max Q Clear Time (g_c+I1), s	13.5	33.7	2.8	7.5	17.4	32.0	25.9	32.0
Green Ext Time (p_c), s	0.1	0.0	0.0	7.0	0.0	0.0	0.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	223.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	0	55	0	0	0	135	125	0	0	480	510
Future Volume (vph)	435	0	55	0	0	0	135	125	0	0	480	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00				1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00
Frt	1.00		0.85				1.00	1.00			0.99	0.85
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736		1553				1752	1845			1725	1469
Flt Permitted	0.95		1.00				0.15	1.00			1.00	1.00
Satd. Flow (perm)	1736		1553				276	1845			1725	1469
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	478	0	60	0	0	0	148	137	0	0	527	560
RTOR Reduction (vph)	0	0	38	0	0	0	0	0	0	0	2	256
Lane Group Flow (vph)	478	0	22	0	0	0	148	137	0	0	581	248
Confl. Peds. (#/hr)									5	5		
Confl. Bikes (#/hr)									2			3
Heavy Vehicles (%)	4%	4%	4%	92%	92%	92%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm				D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	28.4		28.4				35.0	39.6			30.0	30.0
Effective Green, g (s)	28.4		28.4				35.0	39.6			30.0	30.0
Actuated g/C Ratio	0.37		0.37				0.45	0.51			0.39	0.39
Clearance Time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	635		568				219	941			666	567
v/s Ratio Prot							c0.04	0.07			c0.34	
v/s Ratio Perm	c0.28		0.01				0.26					0.17
v/c Ratio	0.75		0.04				0.68	0.15			0.87	0.44
Uniform Delay, d1	21.5		15.8				15.8	10.1			22.0	17.6
Progression Factor	1.00		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2	5.0		0.0				8.0	0.1			12.0	0.5
Delay (s)	26.6		15.8				23.8	10.1			34.1	18.1
Level of Service	C		B				C	B			C	B
Approach Delay (s)		25.4			0.0			17.2			26.7	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	480	90	170	565	80	85	95	95	140	335	180
Future Volume (veh/h)	135	480	90	170	565	80	85	95	95	140	335	180
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1845	1845	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	147	522	98	185	614	87	92	103	103	152	364	196
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	258	459	86	280	497	70	239	233	233	465	328	177
Arrive On Green	0.08	0.30	0.30	0.10	0.31	0.31	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1774	1523	286	1757	1579	224	1774	848	848	1792	1147	618
Grp Volume(v), veh/h	147	0	620	185	0	701	92	0	206	152	0	560
Grp Sat Flow(s),veh/h/ln	1774	0	1808	1757	0	1802	1774	0	1696	1792	0	1765
Q Serve(g_s), s	3.7	0.0	20.0	4.7	0.0	20.9	2.4	0.0	6.7	3.9	0.0	19.0
Cycle Q Clear(g_c), s	3.7	0.0	20.0	4.7	0.0	20.9	2.4	0.0	6.7	3.9	0.0	19.0
Prop In Lane	1.00		0.16	1.00		0.12	1.00		0.50	1.00		0.35
Lane Grp Cap(c), veh/h	258	0	545	280	0	567	239	0	467	465	0	505
V/C Ratio(X)	0.57	0.00	1.14	0.66	0.00	1.24	0.38	0.00	0.44	0.33	0.00	1.11
Avail Cap(c_a), veh/h	296	0	545	294	0	567	296	0	486	502	0	505
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	16.7	0.0	23.2	16.4	0.0	22.8	17.4	0.0	19.9	15.2	0.0	23.7
Incr Delay (d2), s/veh	0.7	0.0	82.6	3.9	0.0	121.0	0.4	0.0	0.2	0.2	0.0	73.1
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	1.8	0.0	22.3	2.5	0.0	29.3	1.1	0.0	3.1	1.9	0.0	19.4
LnGrp Delay(d),s/veh	17.4	0.0	105.8	20.3	0.0	143.8	17.7	0.0	20.1	15.4	0.0	96.8
LnGrp LOS	B		F	C		F	B		C	B		F
Approach Vol, veh/h		767			886			298			712	
Approach Delay, s/veh		88.8			118.0			19.4			79.4	
Approach LOS		F			F			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	25.4	9.1	22.8	10.0	24.5	8.4	23.5
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.0	20.0	7.0	19.0	7.0	20.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	5.7	22.9	5.9	8.7	6.7	22.0	4.4	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	88.2
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	17.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	70	145	460	60	130	1005
Future Vol, veh/h	70	145	460	60	130	1005
Conflicting Peds, #/hr	34	10	0	34	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	5	3	3
Mvmt Flow	78	161	511	67	144	1117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2018	588	0	0	612	0
Stage 1	578	-	-	-	-	-
Stage 2	1440	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	~ 65	513	-	-	962	-
Stage 1	565	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 52	492	-	-	953	-
Mov Cap-2 Maneuver	~ 52	-	-	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	181	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	150.2	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	52	492	953	-
HCM Lane V/C Ratio	-	-	1.496	0.327	0.152	-
HCM Control Delay (s)	-	-	$ 428.7	15.8	9.5	-
HCM Lane LOS	-	-	F	C	A	-
HCM 95th %tile Q(veh)	-	-	7.2	1.4	0.5	-

Notes

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

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	0	615	5	5	1270
Future Vol, veh/h	0	0	615	5	5	1270
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	0	0	683	6	6	1411

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2116	694	0	0	693	0
Stage 1	690	-	-	-	-	-
Stage 2	1426	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	56	446	-	-	902	-
Stage 1	502	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	55	443	-	-	899	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	500	-	-	-	-	-
Stage 2	222	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	899	-
HCM Lane V/C Ratio	-	-	-	0.006	-
HCM Control Delay (s)	-	-	0	9	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	20	585	10	40	1215
Future Vol, veh/h	5	20	585	10	40	1215
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	6	22	657	11	45	1365

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2126	671	0	0	673	0
Stage 1	667	-	-	-	-	-
Stage 2	1459	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	54	453	-	-	918	-
Stage 1	507	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	51	450	-	-	915	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	505	-	-	-	-	-
Stage 2	200	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	321	915	-
HCM Lane V/C Ratio	-	-	0.088	0.049	-
HCM Control Delay (s)	-	-	17.3	9.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	90	0	0	75	5	70	0	10	5	0	0
Future Vol, veh/h	5	90	0	0	75	5	70	0	10	5	0	0
Conflicting Peds, #/hr	2	0	1	2	0	3	1	0	2	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	2	2	2	0	0	0	0	0	0
Mvmt Flow	6	117	0	0	97	6	91	0	13	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	119	0	0	235	239	122	243	236	106
Stage 1	-	-	-	-	-	-	132	132	-	104	104	-
Stage 2	-	-	-	-	-	-	103	107	-	139	132	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1478	-	-	1469	-	-	724	666	935	715	668	954
Stage 1	-	-	-	-	-	-	876	791	-	907	813	-
Stage 2	-	-	-	-	-	-	908	811	-	869	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1475	-	-	1465	-	-	719	660	931	699	662	949
Mov Cap-2 Maneuver	-	-	-	-	-	-	719	660	-	699	662	-
Stage 1	-	-	-	-	-	-	871	786	-	901	811	-
Stage 2	-	-	-	-	-	-	906	809	-	851	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.7	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	740	1475	-	-	1465	-	-	699
HCM Lane V/C Ratio	0.14	0.004	-	-	-	-	-	0.009
HCM Control Delay (s)	10.7	7.5	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	90	10	5	75	5	5	0	5	5	0	0
Future Vol, veh/h	10	90	10	5	75	5	5	0	5	5	0	0
Conflicting Peds, #/hr	6	0	7	1	0	0	7	0	1	0	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	1	1	1	3	3	3	0	0	0	0	0	0
Mvmt Flow	12	110	12	6	91	6	6	0	6	6	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	129	0	0	261	263	124	257	266	108
Stage 1	-	-	-	-	-	-	147	147	-	113	113	-
Stage 2	-	-	-	-	-	-	114	116	-	144	153	-
Critical Hdwy	4.11	-	-	4.13	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.227	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1494	-	-	1451	-	-	696	646	932	700	643	951
Stage 1	-	-	-	-	-	-	860	779	-	897	806	-
Stage 2	-	-	-	-	-	-	896	803	-	864	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1450	-	-	680	630	925	684	627	939
Mov Cap-2 Maneuver	-	-	-	-	-	-	680	630	-	684	627	-
Stage 1	-	-	-	-	-	-	847	767	-	884	798	-
Stage 2	-	-	-	-	-	-	886	795	-	850	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	9.7	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	784	1484	-	-	1450	-	-	684
HCM Lane V/C Ratio	0.016	0.008	-	-	0.004	-	-	0.009
HCM Control Delay (s)	9.7	7.4	0	-	7.5	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	50	40	5	0	60	20	5	0	0	10	0	10
Future Vol, veh/h	50	40	5	0	60	20	5	0	0	10	0	10
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	10	10	10
Mvmt Flow	72	58	7	0	87	29	7	0	0	14	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	66	0	0	317	325	64	310	313	102
Stage 1	-	-	-	-	-	-	208	208	-	102	102	-
Stage 2	-	-	-	-	-	-	109	117	-	208	211	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	1471	-	-	1549	-	-	640	596	1006	627	589	932
Stage 1	-	-	-	-	-	-	799	734	-	885	795	-
Stage 2	-	-	-	-	-	-	901	803	-	776	713	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1471	-	-	1548	-	-	605	565	1004	601	558	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	605	565	-	601	558	-
Stage 1	-	-	-	-	-	-	758	696	-	839	794	-
Stage 2	-	-	-	-	-	-	887	802	-	736	676	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0	11	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	605	1471	-	-	1548	-	-	730
HCM Lane V/C Ratio	0.012	0.049	-	-	-	-	-	0.04
HCM Control Delay (s)	11	7.6	0	-	0	-	-	10.1
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	30	50	5	0	5
Future Vol, veh/h	5	30	50	5	0	5
Conflicting Peds, #/hr	1	0	0	1	1	1
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	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	44	74	7	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	82	0	-	0	138	79
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	4.1	-	-	-	7.1	6.2
Critical Hdwy Stg 1	-	-	-	-	6.1	-
Critical Hdwy Stg 2	-	-	-	-	6.1	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1528	-	-	-	837	987
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1527	-	-	-	832	985
Mov Cap-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	951	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	985
HCM Lane V/C Ratio	0.005	-	-	-	0.007
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Future Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Conflicting Peds, #/hr	1	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	92	68	92	92	92	68	68	92	92	68	68
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	37	0	15	0	0	0	22	0	0	0	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	15	0	0	105	83	7	83	90	3
Stage 1	-	-	-	-	-	-	81	81	-	2	2	-
Stage 2	-	-	-	-	-	-	24	2	-	81	88	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1603	-	-	880	811	1075	904	804	1087
Stage 1	-	-	-	-	-	-	932	832	-	1021	898	-
Stage 2	-	-	-	-	-	-	999	898	-	927	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	829	792	1075	887	785	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	792	-	887	785	-
Stage 1	-	-	-	-	-	-	911	813	-	997	897	-
Stage 2	-	-	-	-	-	-	957	897	-	906	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	0	9.5	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	829	1632	-	-	1603	-	-	1085
HCM Lane V/C Ratio	0.027	0.023	-	-	-	-	-	0.041
HCM Control Delay (s)	9.5	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	670	120	205	1005	230	225	420	395	95	150	75
Future Volume (veh/h)	50	670	120	205	1005	230	225	420	395	95	150	75
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1900	1881	1881	1881	1900	1900	1900
Adj Flow Rate, veh/h	53	705	126	216	1058	242	237	442	416	100	158	79
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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	1	1	1	1	1	1	0	0	0
Cap, veh/h	50	800	143	243	892	203	200	562	584	51	255	128
Arrive On Green	0.03	0.27	0.27	0.07	0.31	0.31	0.11	0.30	0.30	0.03	0.21	0.21
Sat Flow, veh/h	1774	2988	534	3476	2879	655	1792	1881	1580	1810	1189	594
Grp Volume(v), veh/h	53	417	414	216	655	645	237	442	416	100	0	237
Grp Sat Flow(s),veh/h/ln	1774	1770	1752	1738	1787	1748	1792	1881	1580	1810	0	1783
Q Serve(g_s), s	2.0	16.2	16.2	4.4	22.1	22.1	8.0	15.4	16.1	2.0	0.0	8.6
Cycle Q Clear(g_c), s	2.0	16.2	16.2	4.4	22.1	22.1	8.0	15.4	16.1	2.0	0.0	8.6
Prop In Lane	1.00		0.30	1.00		0.37	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	50	474	469	243	553	541	200	562	584	51	0	383
V/C Ratio(X)	1.07	0.88	0.88	0.89	1.18	1.19	1.18	0.79	0.71	1.98	0.00	0.62
Avail Cap(c_a), veh/h	50	520	515	243	553	541	200	684	686	51	0	499
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	0.00	1.00
Uniform Delay (d), s/veh	34.7	25.1	25.1	33.0	24.7	24.7	31.7	23.0	19.3	34.7	0.0	25.4
Incr Delay (d2), s/veh	148.2	14.2	14.4	29.5	99.6	103.7	121.3	4.0	2.1	501.9	0.0	0.6
Initial Q Delay(d3),s/veh	2.2	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	3.0	9.7	9.7	3.1	26.1	26.1	10.7	8.6	7.3	8.0	0.0	4.3
LnGrp Delay(d),s/veh	185.1	39.2	39.5	62.5	124.3	128.4	153.1	26.9	21.4	536.7	0.0	26.0
LnGrp LOS	F	D	D	E	F	F	F	C	C	F		C
Approach Vol, veh/h		884			1516			1095			337	
Approach Delay, s/veh		48.1			117.2			52.1			177.6	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	28.1	8.0	27.4	11.0	25.1	14.0	21.4
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 2	* 21	2.0	26.0	* 5	* 21	8.0	20.0
Max Q Clear Time (g_c+I1), s	4.0	24.1	4.0	18.1	6.4	18.2	10.0	10.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	0.8	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	88.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	290	55	75	190	50	95	595	95	35	280	115
Future Volume (veh/h)	125	290	55	75	190	50	95	595	95	35	280	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	0.99		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1900	1900	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	129	299	57	77	196	52	98	613	98	36	289	119
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	0	0	0	2	2	2	1	1	1
Cap, veh/h	406	500	95	328	484	128	456	736	118	250	592	244
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1085	1484	283	1028	1437	381	965	1564	250	742	1258	518
Grp Volume(v), veh/h	129	0	356	77	0	248	98	0	711	36	0	408
Grp Sat Flow(s),veh/h/ln	1085	0	1767	1028	0	1818	965	0	1814	742	0	1776
Q Serve(g_s), s	4.9	0.0	7.8	3.1	0.0	4.9	3.6	0.0	16.0	2.1	0.0	7.4
Cycle Q Clear(g_c), s	9.8	0.0	7.8	11.0	0.0	4.9	11.0	0.0	16.0	18.1	0.0	7.4
Prop In Lane	1.00		0.16	1.00		0.21	1.00		0.14	1.00		0.29
Lane Grp Cap(c), veh/h	406	0	596	328	0	613	456	0	854	250	0	836
V/C Ratio(X)	0.32	0.00	0.60	0.23	0.00	0.40	0.22	0.00	0.83	0.14	0.00	0.49
Avail Cap(c_a), veh/h	459	0	683	379	0	703	473	0	887	263	0	868
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	15.7	0.0	12.9	17.4	0.0	11.9	12.3	0.0	10.8	18.6	0.0	8.5
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.4	0.0	0.4	0.2	0.0	6.6	0.3	0.0	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	1.5	0.0	3.9	0.9	0.0	2.5	1.0	0.0	9.5	0.4	0.0	3.6
LnGrp Delay(d),s/veh	16.1	0.0	14.0	17.8	0.0	12.4	12.5	0.0	17.4	18.9	0.0	9.0
LnGrp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		485			325			809			444	
Approach Delay, s/veh		14.6			13.6			16.8			9.8	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		26.6		20.3		26.6		20.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		22.9		18.1		22.9		18.1
Max Q Clear Time (g_c+I1), s		18.0		11.8		20.1		13.0
Green Ext Time (p_c), s		3.3		2.5		2.0		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	75	0	5	5	845	200	30	760	5
Future Volume (veh/h)	0	0	5	75	0	5	5	845	200	30	760	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.96		0.91	1.00		0.96	1.00		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
Adj Sat Flow, veh/h/ln	1900	1583	1900	1900	1863	1900	1863	1863	1900	1845	1845	1900
Adj Flow Rate, veh/h	0	0	5	77	0	5	5	871	206	31	784	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	20	20	20	2	2	2	2	2	2	3	3	3
Cap, veh/h	0	0	178	316	5	11	444	975	231	244	1235	8
Arrive On Green	0.00	0.00	0.14	0.14	0.00	0.14	0.67	0.67	0.67	0.67	0.67	0.67
Sat Flow, veh/h	0	0	1292	1242	34	83	682	1444	342	517	1830	12
Grp Volume(v), veh/h	0	0	5	82	0	0	5	0	1077	31	0	789
Grp Sat Flow(s),veh/h/ln	0	0	1292	1358	0	0	682	0	1786	517	0	1842
Q Serve(g_s), s	0.0	0.0	0.2	2.5	0.0	0.0	0.2	0.0	23.7	2.5	0.0	11.7
Cycle Q Clear(g_c), s	0.0	0.0	0.2	2.6	0.0	0.0	11.9	0.0	23.7	26.2	0.0	11.7
Prop In Lane	0.00		1.00	0.94		0.06	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	178	332	0	0	444	0	1205	244	0	1243
V/C Ratio(X)	0.00	0.00	0.03	0.25	0.00	0.00	0.01	0.00	0.89	0.13	0.00	0.63
Avail Cap(c_a), veh/h	0	0	488	658	0	0	452	0	1225	249	0	1264
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	17.9	19.0	0.0	0.0	7.8	0.0	6.4	17.1	0.0	4.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	8.6	0.2	0.0	1.0
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	0.0	0.0	0.1	1.0	0.0	0.0	0.0	0.0	14.0	0.4	0.0	6.1
LnGrp Delay(d),s/veh	0.0	0.0	18.0	19.4	0.0	0.0	7.8	0.0	15.0	17.3	0.0	5.5
LnGrp LOS			B	B			A		B	B		A
Approach Vol, veh/h		5			82			1082			820	
Approach Delay, s/veh		18.0			19.4			15.0			5.9	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		36.9		11.1		36.9		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		25.7		2.2		28.2		4.6
Green Ext Time (p_c), s		6.2		0.3		4.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	535	5	10	295	345	5	20	25	205	5	170
Future Volume (veh/h)	500	535	5	10	295	345	5	20	25	205	5	170
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1900	1863	1900	1900	1845	1845
Adj Flow Rate, veh/h	532	569	5	11	314	367	5	21	27	218	5	181
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	324	1070	9	25	768	505	89	130	145	0	314	260
Arrive On Green	0.18	0.57	0.57	0.01	0.41	0.41	0.17	0.17	0.17	0.00	0.17	0.17
Sat Flow, veh/h	1792	1861	16	1792	1881	1553	59	763	854	0	1845	1529
Grp Volume(v), veh/h	532	0	574	11	314	367	53	0	0	0	5	181
Grp Sat Flow(s),veh/h/ln	1792	0	1878	1792	1881	1553	1676	0	0	0	1845	1529
Q Serve(g_s), s	9.0	0.0	9.3	0.3	5.9	14.5	0.0	0.0	0.0	0.0	0.1	5.6
Cycle Q Clear(g_c), s	9.0	0.0	9.3	0.3	5.9	14.5	1.3	0.0	0.0	0.0	0.1	5.6
Prop In Lane	1.00		0.01	1.00		1.00	0.09		0.51	0.00		1.00
Lane Grp Cap(c), veh/h	324	0	1079	25	768	505	364	0	0	0	314	260
V/C Ratio(X)	1.64	0.00	0.53	0.43	0.41	0.73	0.15	0.00	0.00	0.00	0.02	0.70
Avail Cap(c_a), veh/h	324	0	1079	180	907	620	447	0	0	0	778	645
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	6.5	24.4	10.5	27.1	17.7	0.0	0.0	0.0	17.2	19.5
Incr Delay (d2), s/veh	303.0	0.0	0.5	11.2	0.3	3.3	0.2	0.0	0.0	0.0	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.6	0.0	4.9	0.2	3.1	6.7	0.6	0.0	0.0	0.0	0.1	2.6
LnGrp Delay(d),s/veh	323.4	0.0	7.0	35.6	10.8	30.4	17.9	0.0	0.0	0.0	17.2	22.8
LnGrp LOS	F		A	D	B	C	B				B	C
Approach Vol, veh/h		1106			692			53			186	
Approach Delay, s/veh		159.2			21.6			17.9			22.6	
Approach LOS		F			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	24.3	0.0	12.5	4.7	32.6		12.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	24.0	6.0	11.0	5.0	28.0		21.0
Max Q Clear Time (g_c+I1), s	11.0	16.5	0.0	3.3	2.3	11.3		7.6
Green Ext Time (p_c), s	0.0	3.5	0.0	0.5	0.0	6.8		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	96.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	515	95	305	345	230	145	540	310	280	435	125
Future Volume (veh/h)	275	515	95	305	345	230	145	540	310	280	435	125
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.94	1.00		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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1863	1863	1863	1863	1863	1863	1845	1845	1900
Adj Flow Rate, veh/h	284	531	98	314	356	237	149	557	320	289	448	129
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	281	557	601	221	492	597	164	583	663	219	468	135
Arrive On Green	0.16	0.30	0.30	0.12	0.26	0.26	0.09	0.31	0.31	0.12	0.35	0.35
Sat Flow, veh/h	1792	1881	1531	1774	1863	1514	1774	1863	1488	1757	1357	391
Grp Volume(v), veh/h	284	531	98	314	356	237	149	557	320	289	0	577
Grp Sat Flow(s),veh/h/ln	1792	1881	1531	1774	1863	1514	1774	1863	1488	1757	0	1748
Q Serve(g_s), s	24.3	42.9	6.5	19.3	27.0	17.6	12.9	45.4	23.9	19.3	0.0	50.0
Cycle Q Clear(g_c), s	24.3	42.9	6.5	19.3	27.0	17.6	12.9	45.4	23.9	19.3	0.0	50.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	281	557	601	221	492	597	164	583	663	219	0	603
V/C Ratio(X)	1.01	0.95	0.16	1.42	0.72	0.40	0.91	0.96	0.48	1.32	0.00	0.96
Avail Cap(c_a), veh/h	281	557	601	221	492	597	164	598	675	219	0	603
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	0.83	0.00	0.83
Uniform Delay (d), s/veh	65.3	53.5	31.0	67.8	51.9	34.4	69.7	52.2	31.3	67.8	0.0	49.6
Incr Delay (d2), s/veh	56.6	28.1	0.6	214.0	9.0	2.0	45.2	25.9	0.5	168.7	0.0	23.4
Initial Q Delay(d3),s/veh	0.1	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	16.4	26.6	2.8	22.6	15.1	7.7	8.4	27.6	9.9	19.6	0.0	28.1
LnGrp Delay(d),s/veh	122.0	81.6	31.5	281.9	60.9	36.3	115.0	78.1	31.8	236.6	0.0	73.0
LnGrp LOS	F	F	C	F	E	D	F	E	C	F		E
Approach Vol, veh/h		913			907			1026			866	
Approach Delay, s/veh		88.8			131.0			69.0			127.6	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	46.3	25.0	53.7	25.0	51.3	20.0	58.7
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 50	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	26.3	29.0	21.3	47.4	21.3	44.9	14.9	52.0
Green Ext Time (p_c), s	0.0	3.2	0.0	1.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.7
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	345	1105	205	225	815
Future Volume (veh/h)	285	345	1105	205	225	815
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	291	352	1128	209	230	832
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	160	193	939	780	266	1256
Arrive On Green	0.21	0.21	0.50	0.50	0.11	0.67
Sat Flow, veh/h	760	919	1863	1547	1774	1863
Grp Volume(v), veh/h	644	0	1128	209	230	832
Grp Sat Flow(s),veh/h/ln	1681	0	1863	1547	1774	1863
Q Serve(g_s), s	20.0	0.0	48.0	7.4	8.0	25.0
Cycle Q Clear(g_c), s	20.0	0.0	48.0	7.4	8.0	25.0
Prop In Lane	0.45	0.55		1.00	1.00	
Lane Grp Cap(c), veh/h	353	0	939	780	266	1256
V/C Ratio(X)	1.82	0.00	1.20	0.27	0.86	0.66
Avail Cap(c_a), veh/h	353	0	939	780	336	1256
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	37.6	0.0	23.6	13.5	28.0	9.1
Incr Delay (d2), s/veh	381.7	0.0	100.8	0.2	17.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.7	0.0	50.8	8.3	7.1	13.2
LnGrp Delay(d),s/veh	419.3	0.0	124.4	13.7	45.1	10.4
LnGrp LOS	F		F	B	D	B
Approach Vol, veh/h	644		1337			1062
Approach Delay, s/veh	419.3		107.1			17.9
Approach LOS	F		F			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		70.2		25.0	16.2	54.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		48.0		20.0	14.0	48.0		
Max Q Clear Time (g_c+I1), s		27.0		22.0	10.0	50.0		
Green Ext Time (p_c), s		16.4		0.0	0.2	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	142.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	600	460	305	460	35	260	560	295	10	90	210
Future Volume (veh/h)	365	600	460	305	460	35	260	560	295	10	90	210
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1900	1881	1881	1881	1881	1881	1900
Adj Flow Rate, veh/h	380	625	479	318	479	36	271	583	0	10	94	219
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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	1	1	1
Cap, veh/h	380	635	540	296	540	41	299	687	584	13	103	241
Arrive On Green	0.15	0.34	0.34	0.13	0.31	0.31	0.17	0.37	0.00	0.01	0.21	0.21
Sat Flow, veh/h	1792	1881	1599	1792	1728	130	1792	1881	1599	1792	503	1172
Grp Volume(v), veh/h	380	625	479	318	0	515	271	583	0	10	0	313
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1792	0	1858	1792	1881	1599	1792	0	1674
Q Serve(g_s), s	18.4	39.3	33.8	15.4	0.0	31.5	17.7	34.0	0.0	0.7	0.0	21.8
Cycle Q Clear(g_c), s	18.4	39.3	33.8	15.4	0.0	31.5	17.7	34.0	0.0	0.7	0.0	21.8
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	380	635	540	296	0	581	299	687	584	13	0	344
V/C Ratio(X)	1.00	0.98	0.89	1.08	0.00	0.89	0.91	0.85	0.00	0.79	0.00	0.91
Avail Cap(c_a), veh/h	380	635	540	296	0	623	336	687	584	74	0	393
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	39.2	37.4	35.8	0.0	39.0	48.8	34.8	0.0	59.2	0.0	46.3
Incr Delay (d2), s/veh	46.1	31.5	16.3	74.0	0.0	13.9	25.2	9.7	0.0	66.7	0.0	23.0
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	17.3	25.9	17.4	15.8	0.0	18.4	10.9	19.5	0.0	0.6	0.0	12.3
LnGrp Delay(d),s/veh	76.5	70.8	53.7	109.7	0.0	52.9	74.0	44.6	0.0	125.9	0.0	69.3
LnGrp LOS	E	E	D	F		D	E	D		F		E
Approach Vol, veh/h		1484			833			854			323	
Approach Delay, s/veh		66.7			74.6			53.9			71.0	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	42.3	5.4	48.6	20.0	45.3	24.5	29.5
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	18.4	40.0	4.9	35.0	15.4	40.0	22.4	28.0
Max Q Clear Time (g_c+I1), s	20.4	33.5	2.7	36.0	17.4	41.3	19.7	23.8
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	0.0	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	65.9
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	670	0	80	0	5	0	500	455	0	0	210	605
Future Volume (vph)	670	0	80	0	5	0	500	455	0	0	210	605
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		1.00		1.00	1.00			0.92	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1779		1599		1910		1787	1881			1636	1504
Flt Permitted	0.75		1.00		1.00		0.21	1.00			1.00	1.00
Satd. Flow (perm)	1412		1599		1910		388	1881			1636	1504
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	698	0	83	0	5	0	521	474	0	0	219	630
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	0	0	28	323
Lane Group Flow (vph)	698	0	26	0	5	0	521	474	0	0	412	86
Confl. Peds. (#/hr)	5					5			7	7		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	1%	1%	1%	89%	89%	89%	1%	1%	1%	2%	2%	2%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	29.1		29.1		1.0		37.9	42.5			19.4	19.4
Effective Green, g (s)	29.1		29.1		1.0		37.9	42.5			19.4	19.4
Actuated g/C Ratio	0.31		0.31		0.01		0.41	0.46			0.21	0.21
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	443		502		20		438	863			342	315
v/s Ratio Prot					c0.00		c0.24	0.25			c0.25	
v/s Ratio Perm	c0.49		0.02				0.25					0.06
v/c Ratio	1.58		0.05		0.25		1.19	0.55			1.21	0.27
Uniform Delay, d1	31.7		22.1		45.4		24.8	18.1			36.6	30.7
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	269.7		0.0		6.5		106.0	0.7			117.0	0.5
Delay (s)	301.5		22.2		51.9		130.8	18.8			153.6	31.1
Level of Service	F		C		D		F	B			F	C
Approach Delay (s)		271.8			51.9			77.5			94.6	
Approach LOS		F			D			E			F	

Intersection Summary			
HCM 2000 Control Delay	140.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	92.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	530	65	205	730	145	165	415	160	95	200	65
Future Volume (veh/h)	180	530	65	205	730	145	165	415	160	95	200	65
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	552	68	214	760	151	172	432	167	99	208	68
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	0	0	0	0	0	0
Cap, veh/h	283	487	60	297	464	92	425	368	142	244	363	119
Arrive On Green	0.10	0.30	0.30	0.11	0.30	0.30	0.09	0.28	0.28	0.08	0.27	0.27
Sat Flow, veh/h	1792	1641	202	1792	1522	302	1810	1299	502	1810	1368	447
Grp Volume(v), veh/h	188	0	620	214	0	911	172	0	599	99	0	276
Grp Sat Flow(s),veh/h/ln	1792	0	1843	1792	0	1825	1810	0	1801	1810	0	1815
Q Serve(g_s), s	4.8	0.0	19.9	5.4	0.0	20.4	4.5	0.0	19.0	2.6	0.0	8.8
Cycle Q Clear(g_c), s	4.8	0.0	19.9	5.4	0.0	20.4	4.5	0.0	19.0	2.6	0.0	8.8
Prop In Lane	1.00		0.11	1.00		0.17	1.00		0.28	1.00		0.25
Lane Grp Cap(c), veh/h	283	0	547	297	0	556	425	0	510	244	0	481
V/C Ratio(X)	0.66	0.00	1.13	0.72	0.00	1.64	0.40	0.00	1.17	0.41	0.00	0.57
Avail Cap(c_a), veh/h	294	0	547	297	0	556	445	0	510	296	0	514
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	16.7	0.0	23.6	16.5	0.0	23.3	15.9	0.0	24.0	17.8	0.0	21.3
Incr Delay (d2), s/veh	4.1	0.0	80.7	7.2	0.0	295.1	0.2	0.0	97.4	0.4	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	22.3	3.3	0.0	55.8	2.3	0.0	23.2	1.3	0.0	4.5
LnGrp Delay(d),s/veh	20.8	0.0	104.3	23.7	0.0	318.4	16.2	0.0	121.4	18.2	0.0	22.1
LnGrp LOS	C		F	C		F	B		F	B		C
Approach Vol, veh/h		808			1125			771			375	
Approach Delay, s/veh		84.9			262.3			97.9			21.1	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	24.9	8.6	23.5	10.6	24.4	9.8	22.3
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.1	19.9	7.0	19.0
Max Q Clear Time (g_c+I1), s	6.8	22.4	4.6	21.0	7.4	21.9	6.5	10.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	145.2
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	10.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	50	90	1195	40	55	705
Future Vol, veh/h	50	90	1195	40	55	705
Conflicting Peds, #/hr	11	6	0	11	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	53	96	1271	43	59	750

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2182	1310	0	0	1325	0
Stage 1	1304	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 51	194	-	-	521	-
Stage 1	254	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 44	191	-	-	518	-
Mov Cap-2 Maneuver	~ 44	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	356	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	151.6	0	0.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	44	191	518	-
HCM Lane V/C Ratio	-	-	1.209	0.501	0.113	-
HCM Control Delay (s)	-	-	$ 350	41.4	12.8	-
HCM Lane LOS	-	-	F	E	B	-
HCM 95th %tile Q(veh)	-	-	5.1	2.5	0.4	-

Notes

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

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	5	10	1170	5	5	795
Future Vol, veh/h	5	10	1170	5	5	795
Conflicting Peds, #/hr	4	6	0	4	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	6	11	1315	6	6	893

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2231	1329	0	0	1326	0
Stage 1	1323	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	48	191	-	-	521	-
Stage 1	251	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	47	189	-	-	518	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	391	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.3	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	178	518	-
HCM Lane V/C Ratio	-	-	0.095	0.011	-
HCM Control Delay (s)	-	-	27.3	12	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	20	40	1125	20	55	710
Future Vol, veh/h	20	40	1125	20	55	710
Conflicting Peds, #/hr	6	6	0	6	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	22	44	1250	22	61	789

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2184	1273	0	0	1278	0
Stage 1	1267	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	51	206	-	-	543	-
Stage 1	267	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	45	204	-	-	540	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	347	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35	0	0.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	185	540	-
HCM Lane V/C Ratio	-	-	0.36	0.113	-
HCM Control Delay (s)	-	-	35	12.5	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	1.5	0.4	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	80	0	0	105	15	5	0	0	10	0	5
Future Vol, veh/h	5	80	0	0	105	15	5	0	0	10	0	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	1	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	1	1	1	20	20	20	0	0	0
Mvmt Flow	6	91	0	0	119	17	6	0	0	11	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	138	0	0	92	0	0	236	241	94	234	233	132
Stage 1	-	-	-	-	-	-	103	103	-	130	130	-
Stage 2	-	-	-	-	-	-	133	138	-	104	103	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.3	6.7	6.4	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.68	4.18	3.48	3.5	4	3.3
Pot Cap-1 Maneuver	1458	-	-	1509	-	-	682	630	916	725	671	923
Stage 1	-	-	-	-	-	-	861	776	-	878	792	-
Stage 2	-	-	-	-	-	-	829	749	-	907	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1506	-	-	674	626	913	720	666	919
Mov Cap-2 Maneuver	-	-	-	-	-	-	674	626	-	720	666	-
Stage 1	-	-	-	-	-	-	857	772	-	873	790	-
Stage 2	-	-	-	-	-	-	822	748	-	902	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	10.4	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	674	1455	-	-	1506	-	-	776
HCM Lane V/C Ratio	0.008	0.004	-	-	-	-	-	0.022
HCM Control Delay (s)	10.4	7.5	0	-	0	-	-	9.7
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	85	5	5	115	5	5	0	5	5	0	5
Future Vol, veh/h	0	85	5	5	115	5	5	0	5	5	0	5
Conflicting Peds, #/hr	3	0	1	1	0	3	1	0	1	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	0	94	6	6	128	6	6	0	6	6	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	101	0	0	245	245	101	248	246	137
Stage 1	-	-	-	-	-	-	98	98	-	145	145	-
Stage 2	-	-	-	-	-	-	147	147	-	103	101	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1461	-	-	1498	-	-	713	661	960	710	660	917
Stage 1	-	-	-	-	-	-	913	818	-	863	781	-
Stage 2	-	-	-	-	-	-	860	779	-	908	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1457	-	-	1494	-	-	704	656	956	700	655	912
Mov Cap-2 Maneuver	-	-	-	-	-	-	704	656	-	700	655	-
Stage 1	-	-	-	-	-	-	912	817	-	861	776	-
Stage 2	-	-	-	-	-	-	849	774	-	900	814	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	9.5	9.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	811	1457	-	-	1494	-	-	792
HCM Lane V/C Ratio	0.014	-	-	-	0.004	-	-	0.014
HCM Control Delay (s)	9.5	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	75	5	0	75	5	5	0	0	10	0	35
Future Vol, veh/h	15	75	5	0	75	5	5	0	0	10	0	35
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	17	83	6	0	83	6	6	0	0	11	0	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	89	0	0	228	211	89	211	211	92
Stage 1	-	-	-	-	-	-	119	119	-	89	89	-
Stage 2	-	-	-	-	-	-	109	92	-	122	122	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1515	-	-	1513	-	-	731	690	975	750	690	971
Stage 1	-	-	-	-	-	-	890	801	-	923	825	-
Stage 2	-	-	-	-	-	-	901	823	-	887	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1511	-	-	1509	-	-	693	680	972	739	680	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	693	680	-	739	680	-
Stage 1	-	-	-	-	-	-	879	791	-	909	823	-
Stage 2	-	-	-	-	-	-	862	821	-	874	789	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	10.2	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	693	1511	-	-	1509	-	-	904
HCM Lane V/C Ratio	0.008	0.011	-	-	-	-	-	0.055
HCM Control Delay (s)	10.2	7.4	0	-	0	-	-	9.2
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	5	60	45	5	5	15
Future Vol, veh/h	5	60	45	5	5	15
Conflicting Peds, #/hr	2	0	0	1	1	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	6	69	52	6	6	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	138	59
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	81	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1558	-	-	-	860	1012
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	853	1008
Mov Cap-2 Maneuver	-	-	-	-	853	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	964
HCM Lane V/C Ratio	0.004	-	-	-	0.024
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Future Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Conflicting Peds, #/hr	3	0	6	0	0	0	6	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	92	85	92	92	92	85	85	92	92	85	85
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	3	3
Mvmt Flow	53	0	12	0	0	0	6	0	0	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	18	0	0	146	122	12	116	128	10
Stage 1	-	-	-	-	-	-	118	118	-	4	4	-
Stage 2	-	-	-	-	-	-	28	4	-	112	124	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4.027	3.327
Pot Cap-1 Maneuver	1631	-	-	1599	-	-	827	772	1069	861	761	1068
Stage 1	-	-	-	-	-	-	891	802	-	1018	890	-
Stage 2	-	-	-	-	-	-	994	897	-	893	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1599	-	-	766	740	1063	837	730	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	740	-	837	730	-
Stage 1	-	-	-	-	-	-	857	771	-	982	887	-
Stage 2	-	-	-	-	-	-	950	894	-	864	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	9.7	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1622	-	-	1599	-	-	1059
HCM Lane V/C Ratio	0.008	0.033	-	-	-	-	-	0.039
HCM Control Delay (s)	9.7	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	490	128	331	621	137	63	93	87	210	231	63
Future Volume (veh/h)	33	490	128	331	621	137	63	93	87	210	231	63
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1810	1810	1900	1827	1827	1827	1845	1845	1900
Adj Flow Rate, veh/h	35	521	136	352	661	146	67	99	93	223	246	67
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	4	4	4	5	5	5	4	4	4	3	3	3
Cap, veh/h	61	693	180	427	971	214	90	232	391	264	314	85
Arrive On Green	0.04	0.25	0.25	0.13	0.35	0.35	0.05	0.13	0.13	0.15	0.23	0.23
Sat Flow, veh/h	1740	2722	707	3343	2797	617	1740	1827	1516	1757	1392	379
Grp Volume(v), veh/h	35	331	326	352	406	401	67	99	93	223	0	313
Grp Sat Flow(s),veh/h/ln	1740	1736	1694	1672	1719	1695	1740	1827	1516	1757	0	1772
Q Serve(g_s), s	1.4	12.4	12.5	7.2	14.2	14.3	2.7	3.5	3.4	8.7	0.0	11.7
Cycle Q Clear(g_c), s	1.4	12.4	12.5	7.2	14.2	14.3	2.7	3.5	3.4	8.7	0.0	11.7
Prop In Lane	1.00		0.42	1.00		0.36	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	61	442	431	427	597	588	90	232	391	264	0	399
V/C Ratio(X)	0.57	0.75	0.76	0.82	0.68	0.68	0.74	0.43	0.24	0.85	0.00	0.78
Avail Cap(c_a), veh/h	123	542	529	427	634	626	222	752	823	274	0	780
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	0.00	1.00
Uniform Delay (d), s/veh	33.5	24.2	24.2	30.0	19.7	19.7	32.9	28.4	20.8	29.1	0.0	25.7
Incr Delay (d2), s/veh	3.1	3.4	3.7	11.6	2.1	2.2	4.4	0.5	0.1	19.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.3	6.2	4.0	7.0	6.9	1.4	1.8	1.4	5.6	0.0	5.9
LnGrp Delay(d),s/veh	36.6	27.6	27.9	41.6	21.8	21.9	37.4	28.9	21.0	48.3	0.0	27.0
LnGrp LOS	D	C	C	D	C	C	D	C	C	D		C
Approach Vol, veh/h		692			1159			259			536	
Approach Delay, s/veh		28.2			27.8			28.2			35.9	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	30.5	16.6	14.9	15.0	23.9	9.7	21.9
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 26	11.0	29.0	* 9	* 22	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.4	16.3	10.7	5.5	9.2	14.5	4.7	13.7
Green Ext Time (p_c), s	0.0	3.7	0.0	1.3	0.0	3.2	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	29.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	121	90	117	211	35	69	183	24	33	347	71
Future Volume (veh/h)	58	121	90	117	211	35	69	183	24	33	347	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.98	0.99		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900	1881	1881	1900	1696	1696	1900	1810	1810	1900
Adj Flow Rate, veh/h	63	132	98	127	229	38	75	199	26	36	377	77
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	1	1	1	12	12	12	5	5	5
Cap, veh/h	441	328	243	467	544	90	368	605	79	546	600	123
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1054	945	702	1139	1569	260	845	1466	192	1103	1455	297
Grp Volume(v), veh/h	63	0	230	127	0	267	75	0	225	36	0	454
Grp Sat Flow(s),veh/h/ln	1054	0	1647	1139	0	1829	845	0	1658	1103	0	1752
Q Serve(g_s), s	1.8	0.0	4.0	3.6	0.0	4.2	2.9	0.0	3.4	0.9	0.0	7.7
Cycle Q Clear(g_c), s	6.0	0.0	4.0	7.5	0.0	4.2	10.6	0.0	3.4	4.3	0.0	7.7
Prop In Lane	1.00		0.43	1.00		0.14	1.00		0.12	1.00		0.17
Lane Grp Cap(c), veh/h	441	0	571	467	0	634	368	0	684	546	0	723
V/C Ratio(X)	0.14	0.00	0.40	0.27	0.00	0.42	0.20	0.00	0.33	0.07	0.00	0.63
Avail Cap(c_a), veh/h	583	0	793	621	0	881	426	0	799	623	0	844
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	11.6	0.0	9.3	12.1	0.0	9.3	12.9	0.0	7.5	8.9	0.0	8.7
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.3	0.0	0.4	0.3	0.0	0.3	0.1	0.0	1.2
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	0.5	0.0	1.9	1.1	0.0	2.2	0.7	0.0	1.6	0.3	0.0	3.9
LnGrp Delay(d),s/veh	11.8	0.0	9.7	12.4	0.0	9.8	13.2	0.0	7.7	9.0	0.0	9.9
LnGrp LOS	B		A	B		A	B		A	A		A
Approach Vol, veh/h		293			394			300			490	
Approach Delay, s/veh		10.2			10.6			9.1			9.8	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		19.9		17.5		19.9		17.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		12.6		8.0		9.7		9.5
Green Ext Time (p_c), s		2.3		2.8		3.2		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	70	0	15	5	597	35	5	479	0
Future Volume (veh/h)	0	0	5	70	0	15	5	597	35	5	479	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.93		0.90	0.99		0.94	0.99		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
Adj Sat Flow, veh/h/ln	1900	950	1900	1900	1827	1900	1810	1810	1900	1792	1792	0
Adj Flow Rate, veh/h	0	0	6	82	0	18	6	702	41	6	564	0
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	100	100	100	4	4	4	5	5	5	6	6	0
Cap, veh/h	0	0	153	366	15	49	486	973	57	363	1034	0
Arrive On Green	0.00	0.00	0.20	0.20	0.00	0.20	0.58	0.58	0.58	0.58	0.58	0.00
Sat Flow, veh/h	0	0	748	1009	74	238	812	1687	99	683	1792	0
Grp Volume(v), veh/h	0	0	6	100	0	0	6	0	743	6	564	0
Grp Sat Flow(s),veh/h/ln	0	0	748	1321	0	0	812	0	1785	683	1792	0
Q Serve(g_s), s	0.0	0.0	0.3	2.1	0.0	0.0	0.2	0.0	12.4	0.3	8.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	2.6	0.0	0.0	8.2	0.0	12.4	12.7	8.0	0.0
Prop In Lane	0.00		1.00	0.82		0.18	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	153	430	0	0	486	0	1029	363	1034	0
V/C Ratio(X)	0.00	0.00	0.04	0.23	0.00	0.00	0.01	0.00	0.72	0.02	0.55	0.00
Avail Cap(c_a), veh/h	0	0	329	735	0	0	666	0	1427	515	1433	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	13.1	14.0	0.0	0.0	7.9	0.0	6.3	10.9	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	1.1	0.0	0.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	1.0	0.0	0.0	0.0	0.0	6.3	0.1	4.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	13.2	14.3	0.0	0.0	7.9	0.0	7.4	10.9	5.8	0.0
LnGrp LOS			B	B			A		A	B	A	
Approach Vol, veh/h		6			100			749			570	
Approach Delay, s/veh		13.2			14.3			7.4			5.9	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		28.2		12.9		28.2		12.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		14.4		2.3		14.7		4.6
Green Ext Time (p_c), s		9.1		0.4		9.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	288	3	12	335	138	2	1	10	279	1	191
Future Volume (veh/h)	72	288	3	12	335	138	2	1	10	279	1	191
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.97		0.95	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1845	1845	1845	1900	1610	1900	1900	1845	1845
Adj Flow Rate, veh/h	82	327	3	14	381	157	2	1	11	317	1	217
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	3	3	3	18	18	18	3	3	3
Cap, veh/h	152	782	7	31	671	413	115	57	279	0	495	393
Arrive On Green	0.09	0.43	0.43	0.02	0.36	0.36	0.27	0.27	0.27	0.00	0.27	0.27
Sat Flow, veh/h	1740	1807	17	1757	1845	1538	69	214	1038	0	1845	1463
Grp Volume(v), veh/h	82	0	330	14	381	157	14	0	0	0	1	217
Grp Sat Flow(s),veh/h/ln	1740	0	1823	1757	1845	1538	1321	0	0	0	1845	1463
Q Serve(g_s), s	1.9	0.0	5.4	0.3	7.1	7.6	0.0	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	1.9	0.0	5.4	0.3	7.1	7.6	0.3	0.0	0.0	0.0	0.0	5.4
Prop In Lane	1.00		0.01	1.00		1.00	0.14		0.79	0.00		1.00
Lane Grp Cap(c), veh/h	152	0	790	31	671	413	451	0	0	0	495	393
V/C Ratio(X)	0.54	0.00	0.42	0.44	0.57	0.38	0.03	0.00	0.00	0.00	0.00	0.55
Avail Cap(c_a), veh/h	855	0	1706	205	1035	716	451	0	0	0	906	719
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	0.0	8.4	20.8	10.9	43.6	11.6	0.0	0.0	0.0	11.5	13.4
Incr Delay (d2), s/veh	3.0	0.0	0.4	9.5	0.8	0.6	0.0	0.0	0.0	0.0	0.0	1.2
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	1.0	0.0	2.7	0.2	3.7	3.3	0.1	0.0	0.0	0.0	0.0	2.3
LnGrp Delay(d),s/veh	21.6	0.0	8.7	30.3	11.7	44.2	11.6	0.0	0.0	0.0	11.5	14.7
LnGrp LOS	C		A	C	B	D	B				B	B
Approach Vol, veh/h		412			552			14			218	
Approach Delay, s/veh		11.3			21.4			11.6			14.6	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	19.6	0.0	15.5	4.8	22.5		15.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	24.0	6.0	11.0	5.0	40.0		21.0
Max Q Clear Time (g_c+I1), s	3.9	9.6	0.0	2.3	2.3	7.4		7.4
Green Ext Time (p_c), s	0.2	4.4	0.0	0.5	0.0	5.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	330	181	413	343	314	144	191	195	93	349	112
Future Volume (veh/h)	131	330	181	413	343	314	144	191	195	93	349	112
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1810	1810	1810	1810	1810	1900
Adj Flow Rate, veh/h	147	371	203	464	385	353	162	215	219	104	392	126
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	173	604	652	251	690	676	183	524	653	127	336	108
Arrive On Green	0.10	0.33	0.33	0.14	0.37	0.37	0.11	0.29	0.29	0.07	0.26	0.26
Sat Flow, veh/h	1740	1827	1476	1757	1845	1499	1723	1810	1495	1723	1302	418
Grp Volume(v), veh/h	147	371	203	464	385	353	162	215	219	104	0	518
Grp Sat Flow(s),veh/h/ln	1740	1827	1476	1757	1845	1499	1723	1810	1495	1723	0	1720
Q Serve(g_s), s	11.2	23.0	12.1	19.3	22.3	23.0	12.5	12.9	13.1	8.0	0.0	34.8
Cycle Q Clear(g_c), s	11.2	23.0	12.1	19.3	22.3	23.0	12.5	12.9	13.1	8.0	0.0	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	173	604	652	251	690	676	183	524	653	127	0	443
V/C Ratio(X)	0.85	0.61	0.31	1.85	0.56	0.52	0.89	0.41	0.34	0.82	0.00	1.17
Avail Cap(c_a), veh/h	313	604	652	251	690	676	183	524	653	246	0	443
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	0.90	0.00	0.90
Uniform Delay (d), s/veh	59.8	38.0	24.9	57.9	33.4	26.9	59.6	38.6	25.4	61.6	0.0	50.1
Incr Delay (d2), s/veh	10.9	4.6	1.2	396.4	3.2	2.9	37.0	0.5	0.3	10.8	0.0	95.7
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	5.9	12.4	5.1	37.0	12.0	10.0	7.9	6.5	5.4	4.2	0.0	28.3
LnGrp Delay(d),s/veh	70.7	42.6	26.1	454.2	36.7	29.8	96.6	39.1	25.7	72.4	0.0	145.8
LnGrp LOS	E	D	C	F	D	C	F	D	C	E		F
Approach Vol, veh/h		721			1202			596			622	
Approach Delay, s/veh		43.7			195.8			49.8			133.5	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.1	55.9	15.7	44.3	25.0	50.0	20.0	40.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 14	34.6	* 19	* 25	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	13.2	25.0	10.0	15.1	21.3	25.0	14.5	36.8
Green Ext Time (p_c), s	0.3	4.8	0.1	3.9	0.0	7.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	120.9
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	408	335	756	185	382	796
Future Volume (veh/h)	408	335	756	185	382	796
Number	7	14	6	16	5	2
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
Adj Sat Flow, veh/h/ln	1827	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	443	364	822	201	415	865
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	3	3
Cap, veh/h	213	175	738	627	374	1172
Arrive On Green	0.24	0.24	0.40	0.40	0.16	0.64
Sat Flow, veh/h	905	744	1845	1568	1757	1845
Grp Volume(v), veh/h	808	0	822	201	415	865
Grp Sat Flow(s),veh/h/ln	1650	0	1845	1568	1757	1845
Q Serve(g_s), s	20.0	0.0	34.0	7.5	14.0	27.4
Cycle Q Clear(g_c), s	20.0	0.0	34.0	7.5	14.0	27.4
Prop In Lane	0.55	0.45		1.00	1.00	
Lane Grp Cap(c), veh/h	388	0	738	627	374	1172
V/C Ratio(X)	2.08	0.00	1.11	0.32	1.11	0.74
Avail Cap(c_a), veh/h	388	0	738	627	374	1172
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	32.5	0.0	25.5	17.5	25.5	10.6
Incr Delay (d2), s/veh	495.0	0.0	69.0	0.3	79.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	62.5	0.0	31.4	7.6	17.0	14.5
LnGrp Delay(d),s/veh	527.5	0.0	94.5	17.8	105.0	13.1
LnGrp LOS	F		F	B	F	B
Approach Vol, veh/h	808		1023			1280
Approach Delay, s/veh	527.5		79.5			42.9
Approach LOS	F		E			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		25.0	20.0	40.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		49.0		20.0	14.0	34.0		
Max Q Clear Time (g_c+I1), s		29.4		22.0	16.0	36.0		
Green Ext Time (p_c), s		13.2		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	180.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	436	404	227	548	3	255	107	134	10	227	329
Future Volume (veh/h)	168	436	404	227	548	3	255	107	134	10	227	329
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1863	1863	1900	1776	1776	1776	1863	1863	1900
Adj Flow Rate, veh/h	185	479	444	249	602	3	280	118	0	11	249	362
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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, %	4	4	4	2	2	2	7	7	7	2	2	2
Cap, veh/h	229	480	408	277	533	3	314	783	665	14	177	257
Arrive On Green	0.10	0.26	0.26	0.12	0.29	0.29	0.19	0.44	0.00	0.01	0.26	0.26
Sat Flow, veh/h	1740	1827	1553	1774	1852	9	1691	1776	1509	1774	673	978
Grp Volume(v), veh/h	185	479	444	249	0	605	280	118	0	11	0	611
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1774	0	1861	1691	1776	1509	1774	0	1651
Q Serve(g_s), s	8.7	29.9	30.0	11.6	0.0	32.9	18.4	4.5	0.0	0.7	0.0	30.0
Cycle Q Clear(g_c), s	8.7	29.9	30.0	11.6	0.0	32.9	18.4	4.5	0.0	0.7	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	229	480	408	277	0	535	314	783	665	14	0	434
V/C Ratio(X)	0.81	1.00	1.09	0.90	0.00	1.13	0.89	0.15	0.00	0.80	0.00	1.41
Avail Cap(c_a), veh/h	298	480	408	303	0	535	598	783	665	162	0	434
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	42.1	42.1	29.9	0.0	40.7	45.4	19.1	0.0	56.6	0.0	42.1
Incr Delay (d2), s/veh	11.7	40.6	70.5	26.2	0.0	79.9	8.6	0.1	0.0	65.8	0.0	197.5
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	4.9	20.4	20.8	9.7	0.0	28.7	9.4	2.2	0.0	0.6	0.0	37.4
LnGrp Delay(d),s/veh	42.0	82.7	112.6	56.1	0.0	120.6	53.9	19.2	0.0	122.4	0.0	239.6
LnGrp LOS	D	F	F	E		F	D	B		F		F
Approach Vol, veh/h		1108			854			398			622	
Approach Delay, s/veh		87.9			101.8			43.6			237.5	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	37.9	5.5	55.4	18.4	35.0	25.8	35.0
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	15.4	30.0	10.4	30.0	15.4	30.0	40.4	30.0
Max Q Clear Time (g_c+I1), s	10.7	34.9	2.7	6.5	13.6	32.0	20.4	32.0
Green Ext Time (p_c), s	0.2	0.0	0.0	5.5	0.1	0.0	0.8	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	362	0	45	0	0	0	110	104	0	0	394	436
Future Volume (vph)	362	0	45	0	0	0	110	104	0	0	394	436
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00				1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00
Frt	1.00		0.85				1.00	1.00			0.98	0.85
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736		1553				1752	1845			1719	1469
Flt Permitted	0.95		1.00				0.25	1.00			1.00	1.00
Satd. Flow (perm)	1736		1553				462	1845			1719	1469
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	398	0	49	0	0	0	121	114	0	0	433	479
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	0	3	259
Lane Group Flow (vph)	398	0	18	0	0	0	121	114	0	0	487	163
Confl. Peds. (#/hr)									5	5		
Confl. Bikes (#/hr)									2			3
Heavy Vehicles (%)	4%	4%	4%	92%	92%	92%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm				D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	28.4		28.4				35.0	39.6			30.0	30.0
Effective Green, g (s)	28.4		28.4				35.0	39.6			30.0	30.0
Actuated g/C Ratio	0.37		0.37				0.45	0.51			0.39	0.39
Clearance Time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	635		568				291	941			664	567
v/s Ratio Prot							c0.03	0.06			c0.28	
v/s Ratio Perm	c0.23		0.01				0.16					0.11
v/c Ratio	0.63		0.03				0.42	0.12			0.73	0.29
Uniform Delay, d1	20.2		15.8				14.1	9.9			20.4	16.4
Progression Factor	1.00		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2	1.9		0.0				1.0	0.1			4.2	0.3
Delay (s)	22.2		15.8				15.0	10.0			24.6	16.7
Level of Service	C		B				B	A			C	B
Approach Delay (s)		21.5			0.0			12.6			20.9	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	397	74	140	467	67	74	81	80	115	275	150
Future Volume (veh/h)	108	397	74	140	467	67	74	81	80	115	275	150
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1845	1845	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	117	432	80	152	508	73	80	88	87	125	299	163
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	256	468	87	293	491	71	270	235	232	492	328	179
Arrive On Green	0.08	0.31	0.31	0.09	0.31	0.31	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1774	1526	283	1757	1575	226	1774	854	844	1792	1142	623
Grp Volume(v), veh/h	117	0	512	152	0	581	80	0	175	125	0	462
Grp Sat Flow(s),veh/h/ln	1774	0	1809	1757	0	1802	1774	0	1697	1792	0	1764
Q Serve(g_s), s	2.8	0.0	17.6	3.7	0.0	20.1	2.0	0.0	5.4	3.1	0.0	16.3
Cycle Q Clear(g_c), s	2.8	0.0	17.6	3.7	0.0	20.1	2.0	0.0	5.4	3.1	0.0	16.3
Prop In Lane	1.00		0.16	1.00		0.13	1.00		0.50	1.00		0.35
Lane Grp Cap(c), veh/h	256	0	554	293	0	562	270	0	467	492	0	507
V/C Ratio(X)	0.46	0.00	0.92	0.52	0.00	1.03	0.30	0.00	0.37	0.25	0.00	0.91
Avail Cap(c_a), veh/h	304	0	561	331	0	562	336	0	500	537	0	520
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	15.9	0.0	21.6	15.8	0.0	22.2	16.5	0.0	18.9	14.5	0.0	22.2
Incr Delay (d2), s/veh	0.5	0.0	20.6	0.5	0.0	47.1	0.2	0.0	0.2	0.1	0.0	19.4
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	1.4	0.0	12.0	1.8	0.0	17.2	1.0	0.0	2.6	1.5	0.0	10.6
LnGrp Delay(d),s/veh	16.4	0.0	42.2	16.3	0.0	69.2	16.7	0.0	19.1	14.6	0.0	41.6
LnGrp LOS	B		D	B		F	B		B	B		D
Approach Vol, veh/h		629			733			255			587	
Approach Delay, s/veh		37.4			58.3			18.3			35.8	
Approach LOS		D			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	24.6	8.9	22.2	9.1	24.3	8.1	23.0
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.0	20.0	7.0	19.0	7.0	20.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	4.8	22.1	5.1	7.4	5.7	19.6	4.0	18.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.1	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.7
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	17.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	79	163	387	72	157	835
Future Vol, veh/h	79	163	387	72	157	835
Conflicting Peds, #/hr	34	10	0	34	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	5	3	3
Mvmt Flow	88	181	430	80	174	928

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1815	514	0	0	544	0
Stage 1	504	-	-	-	-	-
Stage 2	1311	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	~ 87	564	-	-	1020	-
Stage 1	611	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 67	541	-	-	1010	-
Mov Cap-2 Maneuver	~ 67	-	-	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	204	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	114.5	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	67	541	1010	-
HCM Lane V/C Ratio	-	-	1.31	0.335	0.173	-
HCM Control Delay (s)	-	-	$ 319.7	15	9.3	-
HCM Lane LOS	-	-	F	C	A	-
HCM 95th %tile Q(veh)	-	-	7.2	1.5	0.6	-

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	1	535	7	8	1085
Future Vol, veh/h	0	1	535	7	8	1085
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	0	1	594	8	9	1206

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1829	606	0	0	606	0
Stage 1	602	-	-	-	-	-
Stage 2	1227	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	85	501	-	-	972	-
Stage 1	551	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	497	-	-	968	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	276	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	497	968	-
HCM Lane V/C Ratio	-	-	0.002	0.009	-
HCM Control Delay (s)	-	-	12.3	8.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	10	32	500	15	53	1027
Future Vol, veh/h	10	32	500	15	53	1027
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	11	36	562	17	60	1154

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1851	578	0	0	583	0
Stage 1	574	-	-	-	-	-
Stage 2	1277	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	81	512	-	-	991	-
Stage 1	559	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	75	508	-	-	987	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	242	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	987	-
HCM Lane V/C Ratio	-	-	0.133	0.06	-
HCM Control Delay (s)	-	-	16.7	8.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	18	116	0	0	89	5	70	0	10	5	0	13
Future Vol, veh/h	18	116	0	0	89	5	70	0	10	5	0	13
Conflicting Peds, #/hr	2	0	1	2	0	3	1	0	2	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	2	2	2	0	0	0	0	0	0
Mvmt Flow	23	151	0	0	116	6	91	0	13	6	0	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	153	0	0	328	324	156	329	321	124
Stage 1	-	-	-	-	-	-	199	199	-	122	122	-
Stage 2	-	-	-	-	-	-	129	125	-	207	199	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1455	-	-	1428	-	-	629	597	895	628	599	932
Stage 1	-	-	-	-	-	-	807	740	-	887	799	-
Stage 2	-	-	-	-	-	-	880	796	-	800	740	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1452	-	-	1424	-	-	607	584	891	607	586	928
Mov Cap-2 Maneuver	-	-	-	-	-	-	607	584	-	607	586	-
Stage 1	-	-	-	-	-	-	792	726	-	869	797	-
Stage 2	-	-	-	-	-	-	862	794	-	773	726	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0	11.8	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	632	1452	-	-	1424	-	-	809
HCM Lane V/C Ratio	0.164	0.016	-	-	-	-	-	0.029
HCM Control Delay (s)	11.8	7.5	0	-	0	-	-	9.6
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	113	10	5	87	5	5	0	5	5	0	2
Future Vol, veh/h	13	113	10	5	87	5	5	0	5	5	0	2
Conflicting Peds, #/hr	6	0	7	1	0	0	7	0	1	0	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	1	1	1	3	3	3	0	0	0	0	0	0
Mvmt Flow	16	138	12	6	106	6	6	0	6	6	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	118	0	0	157	0	0	313	313	152	307	316	122
Stage 1	-	-	-	-	-	-	183	183	-	127	127	-
Stage 2	-	-	-	-	-	-	130	130	-	180	189	-
Critical Hdwy	4.11	-	-	4.13	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.227	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1476	-	-	1417	-	-	643	606	900	649	603	935
Stage 1	-	-	-	-	-	-	823	752	-	882	795	-
Stage 2	-	-	-	-	-	-	878	792	-	826	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1466	-	-	1416	-	-	625	588	893	632	585	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	625	588	-	632	585	-
Stage 1	-	-	-	-	-	-	808	738	-	866	787	-
Stage 2	-	-	-	-	-	-	865	784	-	810	734	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	10	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1466	-	-	1416	-	-	695
HCM Lane V/C Ratio	0.017	0.011	-	-	0.004	-	-	0.012
HCM Control Delay (s)	10	7.5	0	-	7.6	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	72	41	5	0	63	20	5	0	0	10	0	19
Future Vol, veh/h	72	41	5	0	63	20	5	0	0	10	0	19
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	10	10	10
Mvmt Flow	104	59	7	0	91	29	7	0	0	14	0	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	121	0	0	68	0	0	393	394	65	380	383	107
Stage 1	-	-	-	-	-	-	273	273	-	107	107	-
Stage 2	-	-	-	-	-	-	120	121	-	273	276	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	1467	-	-	1546	-	-	570	546	1005	563	538	926
Stage 1	-	-	-	-	-	-	737	688	-	879	791	-
Stage 2	-	-	-	-	-	-	889	800	-	716	667	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1467	-	-	1545	-	-	521	505	1003	530	497	925
Mov Cap-2 Maneuver	-	-	-	-	-	-	521	505	-	530	497	-
Stage 1	-	-	-	-	-	-	682	636	-	813	790	-
Stage 2	-	-	-	-	-	-	863	799	-	662	617	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.7	0	12	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	521	1467	-	-	1545	-	-	736
HCM Lane V/C Ratio	0.014	0.071	-	-	-	-	-	0.057
HCM Control Delay (s)	12	7.6	0	-	0	-	-	10.2
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	6	30	50	5	0	8
Future Vol, veh/h	6	30	50	5	0	8
Conflicting Peds, #/hr	1	0	0	1	1	1
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	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	44	74	7	0	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	82	0	-	0	141	79
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1528	-	-	-	857	987
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1527	-	-	-	850	985
Mov Cap-2 Maneuver	-	-	-	-	850	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	958	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	985
HCM Lane V/C Ratio	0.006	-	-	-	0.012
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Future Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Conflicting Peds, #/hr	1	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	92	68	92	92	92	68	68	92	92	68	68
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	37	0	15	0	0	0	22	0	0	0	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	15	0	0	105	83	7	83	90	3
Stage 1	-	-	-	-	-	-	81	81	-	2	2	-
Stage 2	-	-	-	-	-	-	24	2	-	81	88	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1603	-	-	880	811	1075	904	804	1087
Stage 1	-	-	-	-	-	-	932	832	-	1021	898	-
Stage 2	-	-	-	-	-	-	999	898	-	927	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	829	792	1075	887	785	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	792	-	887	785	-
Stage 1	-	-	-	-	-	-	911	813	-	997	897	-
Stage 2	-	-	-	-	-	-	957	897	-	906	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	0	9.5	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	829	1632	-	-	1603	-	-	1085
HCM Lane V/C Ratio	0.027	0.023	-	-	-	-	-	0.041
HCM Control Delay (s)	9.5	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	550	101	170	832	189	186	353	323	82	149	61
Future Volume (veh/h)	38	550	101	170	832	189	186	353	323	82	149	61
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1900	1881	1881	1881	1900	1900	1900
Adj Flow Rate, veh/h	40	579	106	179	876	199	196	372	340	86	157	64
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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	1	1	1	1	1	1	0	0	0
Cap, veh/h	49	789	144	254	895	203	209	531	562	53	248	101
Arrive On Green	0.03	0.27	0.27	0.07	0.31	0.31	0.12	0.28	0.28	0.03	0.19	0.19
Sat Flow, veh/h	1774	2976	543	3476	2881	654	1792	1881	1579	1810	1276	520
Grp Volume(v), veh/h	40	344	341	179	543	532	196	372	340	86	0	221
Grp Sat Flow(s),veh/h/ln	1774	1770	1750	1738	1787	1748	1792	1881	1579	1810	0	1797
Q Serve(g_s), s	1.5	12.1	12.2	3.4	20.6	20.6	7.4	12.1	12.1	2.0	0.0	7.7
Cycle Q Clear(g_c), s	1.5	12.1	12.2	3.4	20.6	20.6	7.4	12.1	12.1	2.0	0.0	7.7
Prop In Lane	1.00		0.31	1.00		0.37	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	49	469	464	254	555	543	209	531	562	53	0	349
V/C Ratio(X)	0.82	0.73	0.74	0.71	0.98	0.98	0.94	0.70	0.60	1.63	0.00	0.63
Avail Cap(c_a), veh/h	52	543	537	254	555	543	209	715	716	53	0	525
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	0.00	1.00
Uniform Delay (d), s/veh	33.1	22.9	23.0	31.0	23.4	23.4	30.0	22.0	18.1	33.2	0.0	25.3
Incr Delay (d2), s/veh	57.1	3.3	3.5	7.3	32.6	33.2	43.9	0.9	0.4	352.7	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.3	6.3	1.9	15.1	14.9	6.2	6.4	5.3	6.2	0.0	3.9
LnGrp Delay(d),s/veh	90.2	26.3	26.5	38.3	55.9	56.5	73.9	22.9	18.5	385.9	0.0	26.0
LnGrp LOS	F	C	C	D	E	E	E	C	B	F		C
Approach Vol, veh/h		725			1254			908			307	
Approach Delay, s/veh		29.9			53.7			32.3			126.8	
Approach LOS		C			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	27.3	8.0	25.3	11.0	24.1	14.0	19.3
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 2	* 21	2.0	26.0	* 5	* 21	8.0	20.0
Max Q Clear Time (g_c+I1), s	3.5	22.6	4.0	14.1	5.4	14.2	9.4	9.7
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	3.2	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	49.2
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	238	43	71	156	42	82	498	83	32	253	97
Future Volume (veh/h)	103	238	43	71	156	42	82	498	83	32	253	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.98		0.97	0.99		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1900	1900	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	106	245	44	73	161	43	85	513	86	33	261	100
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	0	0	0	2	2	2	1	1	1
Cap, veh/h	445	489	88	386	467	125	494	708	119	328	587	225
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1126	1500	269	1090	1434	383	1005	1552	260	821	1287	493
Grp Volume(v), veh/h	106	0	289	73	0	204	85	0	599	33	0	361
Grp Sat Flow(s),veh/h/ln	1126	0	1770	1090	0	1817	1005	0	1812	821	0	1780
Q Serve(g_s), s	3.3	0.0	5.4	2.4	0.0	3.5	2.6	0.0	11.1	1.4	0.0	5.7
Cycle Q Clear(g_c), s	6.8	0.0	5.4	7.8	0.0	3.5	8.3	0.0	11.1	12.5	0.0	5.7
Prop In Lane	1.00		0.15	1.00		0.21	1.00		0.14	1.00		0.28
Lane Grp Cap(c), veh/h	445	0	577	386	0	592	494	0	826	328	0	812
V/C Ratio(X)	0.24	0.00	0.50	0.19	0.00	0.34	0.17	0.00	0.72	0.10	0.00	0.44
Avail Cap(c_a), veh/h	573	0	776	509	0	797	593	0	1006	410	0	988
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	13.1	0.0	11.2	14.4	0.0	10.6	10.5	0.0	9.1	14.2	0.0	7.7
Incr Delay (d2), s/veh	0.3	0.0	0.7	0.2	0.0	0.3	0.2	0.0	2.1	0.1	0.0	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	1.0	0.0	2.8	0.7	0.0	1.8	0.7	0.0	6.0	0.3	0.0	2.8
LnGrp Delay(d),s/veh	13.4	0.0	11.9	14.6	0.0	10.9	10.7	0.0	11.2	14.3	0.0	8.0
LnGrp LOS	B		B	B		B	B		B	B		A
Approach Vol, veh/h		395			277			684			394	
Approach Delay, s/veh		12.3			11.9			11.1			8.6	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		23.3		17.9		23.3		17.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		22.9		18.1		22.9		18.1
Max Q Clear Time (g_c+I1), s		13.1		8.8		14.5		9.8
Green Ext Time (p_c), s		4.8		2.6		4.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	60	0	5	5	710	165	25	660	5
Future Volume (veh/h)	0	0	5	60	0	5	5	710	165	25	660	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.96		0.91	1.00		0.96	1.00		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
Adj Sat Flow, veh/h/ln	1900	1583	1900	1900	1863	1900	1863	1863	1900	1845	1845	1900
Adj Flow Rate, veh/h	0	0	5	62	0	5	5	732	170	26	680	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	20	20	20	2	2	2	2	2	2	3	3	3
Cap, veh/h	0	0	176	327	6	14	505	950	221	352	1198	9
Arrive On Green	0.00	0.00	0.14	0.14	0.00	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	0	0	1291	1220	46	102	750	1450	337	609	1828	13
Grp Volume(v), veh/h	0	0	5	67	0	0	5	0	902	26	0	685
Grp Sat Flow(s),veh/h/ln	0	0	1291	1369	0	0	750	0	1787	609	0	1842
Q Serve(g_s), s	0.0	0.0	0.1	1.7	0.0	0.0	0.2	0.0	15.2	1.3	0.0	8.8
Cycle Q Clear(g_c), s	0.0	0.0	0.1	1.9	0.0	0.0	9.0	0.0	15.2	16.5	0.0	8.8
Prop In Lane	0.00		1.00	0.93		0.07	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	176	347	0	0	505	0	1171	352	0	1207
V/C Ratio(X)	0.00	0.00	0.03	0.19	0.00	0.00	0.01	0.00	0.77	0.07	0.00	0.57
Avail Cap(c_a), veh/h	0	0	542	731	0	0	586	0	1362	417	0	1404
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	16.2	16.9	0.0	0.0	6.5	0.0	5.2	10.9	0.0	4.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	2.4	0.1	0.0	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	0.0	0.0	0.1	0.8	0.0	0.0	0.0	0.0	8.0	0.2	0.0	4.5
LnGrp Delay(d),s/veh	0.0	0.0	16.2	17.2	0.0	0.0	6.6	0.0	7.5	11.0	0.0	4.5
LnGrp LOS			B	B			A		A	B		A
Approach Vol, veh/h		5			67			907			711	
Approach Delay, s/veh		16.2			17.2			7.5			4.7	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		32.8		10.4		32.8		10.4
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		17.2		2.1		18.5		3.9
Green Ext Time (p_c), s		10.4		0.3		9.8		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	438	3	8	244	292	3	15	19	180	2	140
Future Volume (veh/h)	408	438	3	8	244	292	3	15	19	180	2	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1900	1863	1900	1900	1845	1845
Adj Flow Rate, veh/h	434	466	3	9	260	311	3	16	20	191	2	149
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	345	1084	7	21	753	484	90	116	130	0	278	230
Arrive On Green	0.19	0.58	0.58	0.01	0.40	0.40	0.15	0.15	0.15	0.00	0.15	0.15
Sat Flow, veh/h	1792	1867	12	1792	1881	1552	49	770	862	0	1845	1528
Grp Volume(v), veh/h	434	0	469	9	260	311	39	0	0	0	2	149
Grp Sat Flow(s),veh/h/ln	1792	0	1879	1792	1881	1552	1682	0	0	0	1845	1528
Q Serve(g_s), s	9.0	0.0	6.5	0.2	4.5	12.2	0.0	0.0	0.0	0.0	0.0	4.3
Cycle Q Clear(g_c), s	9.0	0.0	6.5	0.2	4.5	12.2	0.9	0.0	0.0	0.0	0.0	4.3
Prop In Lane	1.00		0.01	1.00		1.00	0.08		0.51	0.00		1.00
Lane Grp Cap(c), veh/h	345	0	1091	21	753	484	337	0	0	0	278	230
V/C Ratio(X)	1.26	0.00	0.43	0.43	0.35	0.64	0.12	0.00	0.00	0.00	0.01	0.65
Avail Cap(c_a), veh/h	345	0	1125	192	966	660	475	0	0	0	828	686
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	5.5	22.9	9.8	28.7	17.3	0.0	0.0	0.0	16.9	18.7
Incr Delay (d2), s/veh	137.8	0.0	0.3	13.0	0.3	1.4	0.2	0.0	0.0	0.0	0.0	3.0
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	17.5	0.0	3.3	0.2	2.4	5.3	0.4	0.0	0.0	0.0	0.0	2.0
LnGrp Delay(d),s/veh	156.7	0.0	5.7	35.9	10.0	30.1	17.4	0.0	0.0	0.0	16.9	21.7
LnGrp LOS	F		A	D	B	C	B				B	C
Approach Vol, veh/h		903			580			39			151	
Approach Delay, s/veh		78.3			21.2			17.4			21.6	
Approach LOS		E			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	22.7	0.0	11.1	4.6	31.2		11.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	24.0	6.0	11.0	5.0	28.0		21.0
Max Q Clear Time (g_c+I1), s	11.0	14.2	0.0	2.9	2.2	8.5		6.3
Green Ext Time (p_c), s	0.0	4.1	0.0	0.4	0.0	5.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	427	94	365	284	190	127	462	304	228	394	106
Future Volume (veh/h)	227	427	94	365	284	190	127	462	304	228	394	106
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.93	1.00		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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1863	1863	1863	1863	1863	1863	1845	1845	1900
Adj Flow Rate, veh/h	234	440	97	376	293	196	131	476	313	235	406	109
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	256	619	642	221	579	670	152	522	612	219	440	118
Arrive On Green	0.14	0.33	0.33	0.12	0.31	0.31	0.09	0.28	0.28	0.12	0.32	0.32
Sat Flow, veh/h	1792	1881	1535	1774	1863	1520	1774	1863	1480	1757	1380	371
Grp Volume(v), veh/h	234	440	97	376	293	196	131	476	313	235	0	515
Grp Sat Flow(s),veh/h/ln	1792	1881	1535	1774	1863	1520	1774	1863	1480	1757	0	1751
Q Serve(g_s), s	20.0	31.8	6.1	19.3	19.9	13.0	11.3	38.3	24.7	19.3	0.0	44.0
Cycle Q Clear(g_c), s	20.0	31.8	6.1	19.3	19.9	13.0	11.3	38.3	24.7	19.3	0.0	44.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	256	619	642	221	579	670	152	522	612	219	0	558
V/C Ratio(X)	0.92	0.71	0.15	1.70	0.51	0.29	0.86	0.91	0.51	1.07	0.00	0.92
Avail Cap(c_a), veh/h	281	619	642	221	579	670	164	598	673	219	0	558
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	0.89	0.00	0.89
Uniform Delay (d), s/veh	65.5	45.5	28.3	67.8	43.7	28.4	70.0	54.0	34.8	67.8	0.0	50.9
Incr Delay (d2), s/veh	31.0	6.8	0.5	334.6	3.1	1.1	33.1	17.0	0.7	78.5	0.0	19.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	17.7	2.7	30.0	10.8	5.6	7.0	22.2	10.2	14.1	0.0	24.3
LnGrp Delay(d),s/veh	96.5	52.3	28.8	402.5	46.8	29.5	103.1	71.0	35.5	146.4	0.0	70.2
LnGrp LOS	F	D	C	F	D	C	F	E	D	F		E
Approach Vol, veh/h		771			865			920			750	
Approach Delay, s/veh		62.8			197.5			63.5			94.1	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.8	53.6	25.0	48.6	25.0	56.4	19.0	54.6
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 50	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	22.0	21.9	21.3	40.3	21.3	33.8	13.3	46.0
Green Ext Time (p_c), s	0.2	4.7	0.0	3.1	0.0	4.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.3
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	329	284	961	168	184	693
Future Volume (veh/h)	329	284	961	168	184	693
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	336	290	981	171	188	707
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	196	169	964	801	226	1240
Arrive On Green	0.22	0.22	0.52	0.52	0.08	0.67
Sat Flow, veh/h	909	785	1863	1547	1774	1863
Grp Volume(v), veh/h	627	0	981	171	188	707
Grp Sat Flow(s),veh/h/ln	1697	0	1863	1547	1774	1863
Q Serve(g_s), s	20.0	0.0	48.0	5.6	5.5	19.0
Cycle Q Clear(g_c), s	20.0	0.0	48.0	5.6	5.5	19.0
Prop In Lane	0.54	0.46		1.00	1.00	
Lane Grp Cap(c), veh/h	366	0	964	801	226	1240
V/C Ratio(X)	1.71	0.00	1.02	0.21	0.83	0.57
Avail Cap(c_a), veh/h	366	0	964	801	345	1240
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	36.4	0.0	22.4	12.1	25.1	8.4
Incr Delay (d2), s/veh	332.3	0.0	33.4	0.1	10.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	43.0	0.0	33.3	6.5	5.3	9.8
LnGrp Delay(d),s/veh	368.6	0.0	55.8	12.3	35.1	9.0
LnGrp LOS	F		F	B	D	A
Approach Vol, veh/h	627		1152			895
Approach Delay, s/veh	368.6		49.3			14.5
Approach LOS	F		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		67.7		25.0	13.7	54.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		48.0		20.0	14.0	48.0		
Max Q Clear Time (g_c+I1), s		21.0		22.0	7.5	50.0		
Green Ext Time (p_c), s		16.5		0.0	0.3	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	112.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	504	421	250	401	29	215	459	247	8	77	177
Future Volume (veh/h)	300	504	421	250	401	29	215	459	247	8	77	177
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1900	1881	1881	1881	1881	1881	1900
Adj Flow Rate, veh/h	312	525	439	260	418	30	224	478	0	8	80	184
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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	1	1	1
Cap, veh/h	418	638	543	333	553	40	261	648	551	11	104	239
Arrive On Green	0.14	0.34	0.34	0.12	0.32	0.32	0.15	0.34	0.00	0.01	0.20	0.20
Sat Flow, veh/h	1792	1881	1599	1792	1735	125	1792	1881	1599	1792	508	1168
Grp Volume(v), veh/h	312	525	439	260	0	448	224	478	0	8	0	264
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1792	0	1859	1792	1881	1599	1792	0	1675
Q Serve(g_s), s	11.5	25.6	25.0	9.6	0.0	21.7	12.2	22.4	0.0	0.4	0.0	14.9
Cycle Q Clear(g_c), s	11.5	25.6	25.0	9.6	0.0	21.7	12.2	22.4	0.0	0.4	0.0	14.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	418	638	543	333	0	593	261	648	551	11	0	343
V/C Ratio(X)	0.75	0.82	0.81	0.78	0.00	0.76	0.86	0.74	0.00	0.75	0.00	0.77
Avail Cap(c_a), veh/h	498	751	639	396	0	743	401	658	559	88	0	468
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	30.3	30.1	22.9	0.0	30.6	41.8	28.8	0.0	49.7	0.0	37.6
Incr Delay (d2), s/veh	5.0	6.4	6.7	8.2	0.0	3.4	11.0	4.3	0.0	67.4	0.0	5.2
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	6.1	14.4	12.0	5.4	0.0	11.6	6.8	12.3	0.0	0.4	0.0	7.4
LnGrp Delay(d),s/veh	26.4	36.7	36.8	31.1	0.0	34.0	52.7	33.1	0.0	117.1	0.0	42.8
LnGrp LOS	C	D	D	C		C	D	C		F		D
Approach Vol, veh/h		1276			708			702			272	
Approach Delay, s/veh		34.2			32.9			39.4			45.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	36.9	5.2	39.5	16.4	39.0	19.2	25.5
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	13.4	40.0	4.9	35.0	15.4	40.0	22.4	28.0
Max Q Clear Time (g_c+I1), s	13.5	23.7	2.4	24.4	11.6	27.6	14.2	16.9
Green Ext Time (p_c), s	0.4	7.5	0.0	3.5	0.3	6.4	0.4	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	550	0	66	0	2	0	412	374	0	0	174	542
Future Volume (vph)	550	0	66	0	2	0	412	374	0	0	174	542
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		1.00		1.00	1.00			0.92	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1779		1599		1910		1787	1881			1629	1504
Flt Permitted	0.76		1.00		1.00		0.21	1.00			1.00	1.00
Satd. Flow (perm)	1416		1599		1910		388	1881			1629	1504
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	573	0	69	0	2	0	429	390	0	0	181	565
RTOR Reduction (vph)	0	0	47	0	0	0	0	0	0	0	31	286
Lane Group Flow (vph)	573	0	22	0	2	0	429	390	0	0	353	76
Confl. Peds. (#/hr)	5					5			7	7		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	1%	1%	1%	89%	89%	89%	1%	1%	1%	2%	2%	2%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	29.1		29.1		0.9		37.9	42.5			19.4	19.4
Effective Green, g (s)	29.1		29.1		0.9		37.9	42.5			19.4	19.4
Actuated g/C Ratio	0.31		0.31		0.01		0.41	0.46			0.21	0.21
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	445		503		18		438	864			341	315
v/s Ratio Prot					c0.00		c0.20	0.21			c0.22	
v/s Ratio Perm	c0.40		0.01				0.21					0.05
v/c Ratio	1.29		0.04		0.11		0.98	0.45			1.04	0.24
Uniform Delay, d1	31.7		22.0		45.4		24.3	17.0			36.5	30.4
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	145.5		0.0		2.7		37.2	0.4			58.3	0.4
Delay (s)	177.2		22.1		48.1		61.5	17.4			94.8	30.8
Level of Service	F		C		D		E	B			F	C
Approach Delay (s)		160.6			48.1			40.5			63.8	
Approach LOS		F			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	83.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	92.5	Sum of lost time (s)	20.8
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	439	58	168	607	122	140	339	128	82	163	57
Future Volume (veh/h)	149	439	58	168	607	122	140	339	128	82	163	57
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	155	457	60	175	632	127	146	353	133	85	170	59
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	0	0	0	0	0	0
Cap, veh/h	264	493	65	302	470	94	463	379	143	265	372	129
Arrive On Green	0.09	0.30	0.30	0.09	0.31	0.31	0.08	0.29	0.29	0.07	0.28	0.28
Sat Flow, veh/h	1792	1628	214	1792	1519	305	1810	1309	493	1810	1345	467
Grp Volume(v), veh/h	155	0	517	175	0	759	146	0	486	85	0	229
Grp Sat Flow(s),veh/h/ln	1792	0	1841	1792	0	1824	1810	0	1803	1810	0	1812
Q Serve(g_s), s	3.8	0.0	17.9	4.3	0.0	20.3	3.7	0.0	17.2	2.1	0.0	6.9
Cycle Q Clear(g_c), s	3.8	0.0	17.9	4.3	0.0	20.3	3.7	0.0	17.2	2.1	0.0	6.9
Prop In Lane	1.00		0.12	1.00		0.17	1.00		0.27	1.00		0.26
Lane Grp Cap(c), veh/h	264	0	557	302	0	564	463	0	522	265	0	501
V/C Ratio(X)	0.59	0.00	0.93	0.58	0.00	1.35	0.32	0.00	0.93	0.32	0.00	0.46
Avail Cap(c_a), veh/h	301	0	558	331	0	564	502	0	522	327	0	524
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	16.4	0.0	22.2	16.2	0.0	22.7	15.0	0.0	22.7	16.9	0.0	19.7
Incr Delay (d2), s/veh	1.1	0.0	21.5	1.1	0.0	167.2	0.1	0.0	23.4	0.3	0.0	0.2
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	1.9	0.0	12.4	2.2	0.0	36.2	1.8	0.0	11.9	1.1	0.0	3.5
LnGrp Delay(d),s/veh	17.5	0.0	43.7	17.3	0.0	189.9	15.1	0.0	46.1	17.1	0.0	19.9
LnGrp LOS	B		D	B		F	B		D	B		B
Approach Vol, veh/h		672			934			632			314	
Approach Delay, s/veh		37.7			157.6			38.9			19.2	
Approach LOS		D			F			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	24.8	8.2	23.5	9.6	24.4	9.1	22.6
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.1	19.9	7.0	19.0
Max Q Clear Time (g_c+I1), s	5.8	22.3	4.1	19.2	6.3	19.9	5.7	8.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	79.6
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	32.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	71	139	995	99	194	589
Future Vol, veh/h	71	139	995	99	194	589
Conflicting Peds, #/hr	11	6	0	11	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	76	148	1059	105	206	627

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2172	1128	0	0	1175	0
Stage 1	1122	-	-	-	-	-
Stage 2	1050	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 51	249	-	-	594	-
Stage 1	311	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 33	245	-	-	591	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	217	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 312.8	0	3.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	245	591	-
HCM Lane V/C Ratio	-	-	2.289	0.604	0.349	-
HCM Control Delay (s)	-	-	$ 847.3	39.8	14.3	-
HCM Lane LOS	-	-	F	E	B	-
HCM 95th %tile Q(veh)	-	-	8.6	3.5	1.6	-

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	6	13	1033	6	6	816
Future Vol, veh/h	6	13	1033	6	6	816
Conflicting Peds, #/hr	4	6	0	4	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	7	15	1161	7	7	917

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2104	1176	0	0	1173	0
Stage 1	1170	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	57	235	-	-	595	-
Stage 1	298	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	56	232	-	-	592	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	296	-	-	-	-	-
Stage 2	380	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	211	592	-
HCM Lane V/C Ratio	-	-	0.101	0.011	-
HCM Control Delay (s)	-	-	24	11.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	28	59	975	29	77	725
Future Vol, veh/h	28	59	975	29	77	725
Conflicting Peds, #/hr	6	6	0	6	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	31	66	1083	32	86	806

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2088	1111	0	0	1122	0
Stage 1	1105	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	59	257	-	-	623	-
Stage 1	320	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	254	-	-	619	-
Mov Cap-2 Maneuver	167	-	-	-	-	-
Stage 1	318	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	218	619	-
HCM Lane V/C Ratio	-	-	0.443	0.138	-
HCM Control Delay (s)	-	-	34	11.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	2.1	0.5	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	22	261	0	0	161	15	5	0	0	10	0	19
Future Vol, veh/h	22	261	0	0	161	15	5	0	0	10	0	19
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	1	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	1	1	1	20	20	20	0	0	0
Mvmt Flow	25	297	0	0	183	17	6	0	0	11	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	298	0	0	552	550	300	542	541	195
Stage 1	-	-	-	-	-	-	348	348	-	193	193	-
Stage 2	-	-	-	-	-	-	204	202	-	349	348	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.3	6.7	6.4	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.68	4.18	3.48	3.5	4	3.3
Pot Cap-1 Maneuver	1382	-	-	1269	-	-	418	419	699	454	451	851
Stage 1	-	-	-	-	-	-	632	603	-	813	745	-
Stage 2	-	-	-	-	-	-	758	702	-	671	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1379	-	-	1267	-	-	399	409	697	445	440	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	399	409	-	445	440	-
Stage 1	-	-	-	-	-	-	618	589	-	794	744	-
Stage 2	-	-	-	-	-	-	737	701	-	655	623	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	14.2	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	399	1379	-	-	1267	-	-	646
HCM Lane V/C Ratio	0.014	0.018	-	-	-	-	-	0.051
HCM Control Delay (s)	14.2	7.7	0	-	0	-	-	10.9
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	262	5	5	167	5	5	0	5	5	0	9
Future Vol, veh/h	4	262	5	5	167	5	5	0	5	5	0	9
Conflicting Peds, #/hr	3	0	1	1	0	3	1	0	1	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	4	291	6	6	186	6	6	0	6	6	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	298	0	0	511	509	298	511	509	194
Stage 1	-	-	-	-	-	-	304	304	-	202	202	-
Stage 2	-	-	-	-	-	-	207	205	-	309	307	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1391	-	-	1269	-	-	476	470	746	476	470	853
Stage 1	-	-	-	-	-	-	710	667	-	805	738	-
Stage 2	-	-	-	-	-	-	800	736	-	705	665	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1387	-	-	1265	-	-	466	464	743	467	464	848
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	464	-	467	464	-
Stage 1	-	-	-	-	-	-	707	664	-	800	732	-
Stage 2	-	-	-	-	-	-	784	730	-	696	662	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	11.4	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	1387	-	-	1265	-	-	657
HCM Lane V/C Ratio	0.019	0.003	-	-	0.004	-	-	0.024
HCM Control Delay (s)	11.4	7.6	0	-	7.9	0	-	10.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	189	78	5	0	79	5	5	0	0	10	0	83
Future Vol, veh/h	189	78	5	0	79	5	5	0	0	10	0	83
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	210	87	6	0	88	6	6	0	0	11	0	92

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	92	0	0	649	605	92	606	606	97
Stage 1	-	-	-	-	-	-	509	509	-	94	94	-
Stage 2	-	-	-	-	-	-	140	96	-	512	512	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1510	-	-	1509	-	-	386	415	971	412	414	965
Stage 1	-	-	-	-	-	-	550	541	-	918	821	-
Stage 2	-	-	-	-	-	-	868	819	-	548	540	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1506	-	-	1505	-	-	309	353	968	363	352	959
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	353	-	363	352	-
Stage 1	-	-	-	-	-	-	469	461	-	781	819	-
Stage 2	-	-	-	-	-	-	782	817	-	466	461	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.4	0	16.9	10.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	309	1506	-	-	1505	-	-	815
HCM Lane V/C Ratio	0.018	0.139	-	-	-	-	-	0.127
HCM Control Delay (s)	16.9	7.8	0	-	0	-	-	10.1
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.5	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	8	60	45	5	5	19
Future Vol, veh/h	8	60	45	5	5	19
Conflicting Peds, #/hr	2	0	0	1	1	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	9	69	52	6	6	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	145	59
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1558	-	-	-	852	1012
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	940	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	844	1008
Mov Cap-2 Maneuver	-	-	-	-	844	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	933	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	969
HCM Lane V/C Ratio	0.006	-	-	-	0.028
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Future Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Conflicting Peds, #/hr	3	0	6	0	0	0	6	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	92	85	92	92	92	85	85	92	92	85	85
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	3	3
Mvmt Flow	53	0	12	0	0	0	6	0	0	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	18	0	0	146	122	12	116	128	10
Stage 1	-	-	-	-	-	-	118	118	-	4	4	-
Stage 2	-	-	-	-	-	-	28	4	-	112	124	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4.027	3.327
Pot Cap-1 Maneuver	1631	-	-	1599	-	-	827	772	1069	861	761	1068
Stage 1	-	-	-	-	-	-	891	802	-	1018	890	-
Stage 2	-	-	-	-	-	-	994	897	-	893	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1599	-	-	766	740	1063	837	730	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	740	-	837	730	-
Stage 1	-	-	-	-	-	-	857	771	-	982	887	-
Stage 2	-	-	-	-	-	-	950	894	-	864	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	9.7	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1622	-	-	1599	-	-	1059
HCM Lane V/C Ratio	0.008	0.033	-	-	-	-	-	0.039
HCM Control Delay (s)	9.7	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	595	160	400	755	165	80	118	105	255	287	80
Future Volume (veh/h)	40	595	160	400	755	165	80	118	105	255	287	80
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1810	1810	1900	1827	1827	1827	1845	1845	1900
Adj Flow Rate, veh/h	43	633	170	426	803	176	85	126	112	271	305	85
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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
Percent Heavy Veh, %	4	4	4	5	5	5	4	4	4	3	3	3
Cap, veh/h	67	706	189	381	942	207	108	332	454	245	358	100
Arrive On Green	0.04	0.26	0.26	0.11	0.34	0.34	0.06	0.18	0.18	0.14	0.26	0.26
Sat Flow, veh/h	1740	2702	725	3343	2801	614	1740	1827	1527	1757	1385	386
Grp Volume(v), veh/h	43	406	397	426	493	486	85	126	112	271	0	390
Grp Sat Flow(s),veh/h/ln	1740	1736	1691	1672	1719	1696	1740	1827	1527	1757	0	1771
Q Serve(g_s), s	1.9	17.8	17.9	9.0	21.1	21.1	3.8	4.8	4.4	11.0	0.0	16.5
Cycle Q Clear(g_c), s	1.9	17.8	17.9	9.0	21.1	21.1	3.8	4.8	4.4	11.0	0.0	16.5
Prop In Lane	1.00		0.43	1.00		0.36	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	67	453	442	381	578	571	108	332	454	245	0	458
V/C Ratio(X)	0.64	0.90	0.90	1.12	0.85	0.85	0.78	0.38	0.25	1.11	0.00	0.85
Avail Cap(c_a), veh/h	110	484	471	381	578	571	198	671	738	245	0	695
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	0.00	1.00
Uniform Delay (d), s/veh	37.4	28.1	28.2	35.0	24.4	24.4	36.5	28.4	21.1	34.0	0.0	27.8
Incr Delay (d2), s/veh	3.7	17.6	18.3	82.1	11.2	11.3	4.6	0.3	0.1	89.3	0.0	4.1
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	1.0	10.7	10.5	8.5	11.8	11.6	2.0	2.4	1.9	11.4	0.0	8.5
LnGrp Delay(d),s/veh	41.1	45.7	46.4	117.0	35.5	35.7	41.1	28.7	21.2	123.3	0.0	31.9
LnGrp LOS	D	D	D	F	D	D	D	C	C	F		C
Approach Vol, veh/h		846			1405			323			661	
Approach Delay, s/veh		45.8			60.3			29.4			69.4	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	32.6	17.0	20.3	15.0	26.6	10.9	26.4
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 5	* 26	11.0	29.0	* 9	* 22	9.0	31.0
Max Q Clear Time (g_c+I1), s	3.9	23.1	13.0	6.8	11.0	19.9	5.8	18.5
Green Ext Time (p_c), s	0.0	1.9	0.0	1.7	0.0	0.7	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	55.3
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	145	110	146	255	40	85	228	29	40	427	85
Future Volume (veh/h)	75	145	110	146	255	40	85	228	29	40	427	85
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	0.99		0.98	0.99		0.98
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
Adj Sat Flow, veh/h/ln	1792	1792	1900	1881	1881	1900	1696	1696	1900	1810	1810	1900
Adj Flow Rate, veh/h	82	158	120	159	277	43	92	248	32	43	464	92
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	6	1	1	1	12	12	12	5	5	5
Cap, veh/h	403	343	261	429	582	90	286	620	80	489	617	122
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1006	936	711	1092	1586	246	768	1469	190	1051	1461	290
Grp Volume(v), veh/h	82	0	278	159	0	320	92	0	280	43	0	556
Grp Sat Flow(s),veh/h/ln	1006	0	1646	1092	0	1833	768	0	1658	1051	0	1751
Q Serve(g_s), s	2.9	0.0	5.5	5.5	0.0	5.7	4.9	0.0	5.0	1.3	0.0	11.5
Cycle Q Clear(g_c), s	8.6	0.0	5.5	11.0	0.0	5.7	16.4	0.0	5.0	6.3	0.0	11.5
Prop In Lane	1.00		0.43	1.00		0.13	1.00		0.11	1.00		0.17
Lane Grp Cap(c), veh/h	403	0	604	429	0	673	286	0	700	489	0	739
V/C Ratio(X)	0.20	0.00	0.46	0.37	0.00	0.48	0.32	0.00	0.40	0.09	0.00	0.75
Avail Cap(c_a), veh/h	459	0	695	489	0	773	286	0	700	489	0	739
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	13.7	0.0	10.3	14.5	0.0	10.4	17.4	0.0	8.6	10.8	0.0	10.4
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.5	0.0	0.5	0.6	0.0	0.4	0.1	0.0	4.4
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	0.8	0.0	2.6	1.7	0.0	2.9	1.1	0.0	2.3	0.4	0.0	6.3
LnGrp Delay(d),s/veh	13.9	0.0	10.8	15.0	0.0	10.9	18.0	0.0	8.9	10.8	0.0	14.8
LnGrp LOS	B		B	B		B	B		A	B		B
Approach Vol, veh/h		360			479			372			599	
Approach Delay, s/veh		11.5			12.2			11.2			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		22.5		20.2		22.5		20.2
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		18.4		10.6		13.5		13.0
Green Ext Time (p_c), s		0.0		2.9		2.5		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	85	0	20	5	727	40	5	588	0
Future Volume (veh/h)	0	0	5	85	0	20	5	727	40	5	588	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	0.93		0.90	1.00		0.94	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
Adj Sat Flow, veh/h/ln	1900	950	1900	1900	1827	1900	1810	1810	1900	1792	1792	0
Adj Flow Rate, veh/h	0	0	6	100	0	24	6	855	47	6	692	0
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	100	100	100	4	4	4	5	5	5	6	6	0
Cap, veh/h	0	0	157	342	14	54	408	1029	57	269	1089	0
Arrive On Green	0.00	0.00	0.21	0.21	0.00	0.21	0.61	0.61	0.61	0.61	0.61	0.00
Sat Flow, veh/h	0	0	750	1001	65	256	725	1694	93	592	1792	0
Grp Volume(v), veh/h	0	0	6	124	0	0	6	0	902	6	692	0
Grp Sat Flow(s),veh/h/ln	0	0	750	1322	0	0	725	0	1787	592	1792	0
Q Serve(g_s), s	0.0	0.0	0.3	3.4	0.0	0.0	0.3	0.0	19.6	0.4	12.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	3.9	0.0	0.0	12.4	0.0	19.6	20.0	12.1	0.0
Prop In Lane	0.00		1.00	0.81		0.19	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	157	409	0	0	408	0	1085	269	1089	0
V/C Ratio(X)	0.00	0.00	0.04	0.30	0.00	0.00	0.01	0.00	0.83	0.02	0.64	0.00
Avail Cap(c_a), veh/h	0	0	277	617	0	0	454	0	1198	307	1202	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	15.5	16.8	0.0	0.0	10.1	0.0	7.6	15.6	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	4.7	0.0	1.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	1.5	0.0	0.0	0.1	0.0	10.7	0.1	6.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	15.6	17.2	0.0	0.0	10.1	0.0	12.3	15.6	7.1	0.0
LnGrp LOS			B	B			B		B	B	A	
Approach Vol, veh/h		6			124			908			698	
Approach Delay, s/veh		15.6			17.2			12.3			7.2	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.3		14.8		34.3		14.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		21.6		2.3		22.0		5.9
Green Ext Time (p_c), s		8.0		0.6		7.8		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	350	5	10	405	169	5	5	10	341	5	230
Future Volume (veh/h)	85	350	5	10	405	169	5	5	10	341	5	230
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.97		0.96	1.00		0.93
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1845	1845	1845	1900	1610	1900	1900	1845	1845
Adj Flow Rate, veh/h	97	398	6	11	460	192	6	6	11	388	6	261
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	3	3	3	18	18	18	3	3	3
Cap, veh/h	158	816	12	25	698	451	152	135	175	0	515	409
Arrive On Green	0.09	0.46	0.46	0.01	0.38	0.38	0.28	0.28	0.28	0.00	0.28	0.28
Sat Flow, veh/h	1740	1794	27	1757	1845	1539	204	482	629	0	1845	1466
Grp Volume(v), veh/h	97	0	404	11	460	192	23	0	0	0	6	261
Grp Sat Flow(s),veh/h/ln	1740	0	1821	1757	1845	1539	1315	0	0	0	1845	1466
Q Serve(g_s), s	2.6	0.0	7.4	0.3	9.8	8.9	0.0	0.0	0.0	0.0	0.1	7.4
Cycle Q Clear(g_c), s	2.6	0.0	7.4	0.3	9.8	8.9	0.6	0.0	0.0	0.0	0.1	7.4
Prop In Lane	1.00		0.01	1.00		1.00	0.26		0.48	0.00		1.00
Lane Grp Cap(c), veh/h	158	0	829	25	698	451	462	0	0	0	515	409
V/C Ratio(X)	0.61	0.00	0.49	0.44	0.66	0.43	0.05	0.00	0.00	0.00	0.01	0.64
Avail Cap(c_a), veh/h	766	0	1527	184	928	643	462	0	0	0	812	645
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	9.1	23.3	12.3	37.9	12.6	0.0	0.0	0.0	12.4	15.1
Incr Delay (d2), s/veh	3.8	0.0	0.4	11.7	1.1	0.6	0.0	0.0	0.0	0.0	0.0	1.7
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	1.4	0.0	3.8	0.2	5.2	3.8	0.2	0.0	0.0	0.0	0.1	3.2
LnGrp Delay(d),s/veh	24.7	0.0	9.5	35.0	13.3	38.5	12.6	0.0	0.0	0.0	12.4	16.7
LnGrp LOS	C		A	D	B	D	B				B	B
Approach Vol, veh/h		501			663			23			267	
Approach Delay, s/veh		12.5			21.0			12.6			16.6	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	22.0	0.0	17.3	4.7	25.7		17.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	21.0	24.0	6.0	11.0	5.0	40.0		21.0
Max Q Clear Time (g_c+I1), s	4.6	11.8	0.0	2.6	2.3	9.4		9.4
Green Ext Time (p_c), s	0.2	5.0	0.0	0.7	0.0	7.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	400	226	518	420	380	174	237	251	115	433	135
Future Volume (veh/h)	160	400	226	518	420	380	174	237	251	115	433	135
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1845	1845	1845	1810	1810	1810	1810	1810	1900
Adj Flow Rate, veh/h	180	449	254	582	472	427	196	266	282	129	487	152
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	3	3	3	5	5	5	5	5	5
Cap, veh/h	206	604	652	251	654	671	183	497	630	153	338	106
Arrive On Green	0.12	0.33	0.33	0.14	0.35	0.35	0.11	0.27	0.27	0.09	0.26	0.26
Sat Flow, veh/h	1740	1827	1476	1757	1845	1497	1723	1810	1494	1723	1312	410
Grp Volume(v), veh/h	180	449	254	582	472	427	196	266	282	129	0	639
Grp Sat Flow(s),veh/h/ln	1740	1827	1476	1757	1845	1497	1723	1810	1494	1723	0	1722
Q Serve(g_s), s	13.7	29.5	15.8	19.3	30.0	30.0	14.3	16.9	18.3	10.0	0.0	34.8
Cycle Q Clear(g_c), s	13.7	29.5	15.8	19.3	30.0	30.0	14.3	16.9	18.3	10.0	0.0	34.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	206	604	652	251	654	671	183	497	630	153	0	444
V/C Ratio(X)	0.87	0.74	0.39	2.32	0.72	0.64	1.07	0.54	0.45	0.84	0.00	1.44
Avail Cap(c_a), veh/h	313	604	652	251	654	671	183	497	630	246	0	444
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	0.83	0.00	0.83
Uniform Delay (d), s/veh	58.5	40.1	25.9	57.9	37.8	29.2	60.3	41.6	28.2	60.5	0.0	50.1
Incr Delay (d2), s/veh	15.6	8.1	1.7	605.1	6.8	4.6	87.6	1.1	0.5	11.2	0.0	208.2
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	7.5	16.2	6.7	51.6	16.4	13.2	11.2	8.6	7.7	5.2	0.0	42.2
LnGrp Delay(d),s/veh	74.1	48.2	27.7	663.0	44.5	33.8	147.9	42.8	28.7	71.8	0.0	258.3
LnGrp LOS	E	D	C	F	D	C	F	D	C	E		F
Approach Vol, veh/h		883			1481			744			768	
Approach Delay, s/veh		47.6			284.5			65.1			227.0	
Approach LOS		D			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.7	53.3	17.7	42.3	25.0	50.0	20.0	40.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 25	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	15.7	32.0	12.0	20.3	21.3	31.5	16.3	36.8
Green Ext Time (p_c), s	0.3	1.9	0.2	2.7	0.0	7.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	177.0
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	511	405	931	225	460	972
Future Volume (veh/h)	511	405	931	225	460	972
Number	7	14	6	16	5	2
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
Adj Sat Flow, veh/h/ln	1827	1900	1845	1845	1845	1845
Adj Flow Rate, veh/h	555	440	1012	245	500	1057
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	3	3	3	3
Cap, veh/h	217	172	738	627	374	1172
Arrive On Green	0.24	0.24	0.40	0.40	0.16	0.64
Sat Flow, veh/h	921	730	1845	1568	1757	1845
Grp Volume(v), veh/h	996	0	1012	245	500	1057
Grp Sat Flow(s),veh/h/ln	1652	0	1845	1568	1757	1845
Q Serve(g_s), s	20.0	0.0	34.0	9.4	14.0	41.6
Cycle Q Clear(g_c), s	20.0	0.0	34.0	9.4	14.0	41.6
Prop In Lane	0.56	0.44		1.00	1.00	
Lane Grp Cap(c), veh/h	389	0	738	627	374	1172
V/C Ratio(X)	2.56	0.00	1.37	0.39	1.34	0.90
Avail Cap(c_a), veh/h	389	0	738	627	374	1172
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	32.5	0.0	25.5	18.1	25.5	13.2
Incr Delay (d2), s/veh	710.5	0.0	175.8	0.4	168.7	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	85.8	0.0	53.2	9.3	26.3	24.0
LnGrp Delay(d),s/veh	743.0	0.0	201.3	18.5	194.2	23.0
LnGrp LOS	F		F	B	F	C
Approach Vol, veh/h	996		1257			1557
Approach Delay, s/veh	743.0		165.6			78.0
Approach LOS	F		F			E

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		25.0	20.0	40.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		49.0		20.0	14.0	34.0		
Max Q Clear Time (g_c+I1), s		43.6		22.0	16.0	36.0		
Green Ext Time (p_c), s		5.0		0.0	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	280.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	528	498	275	667	5	310	125	165	10	275	400
Future Volume (veh/h)	205	528	498	275	667	5	310	125	165	10	275	400
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1827	1827	1863	1863	1900	1776	1776	1776	1863	1863	1900
Adj Flow Rate, veh/h	225	580	547	302	733	5	341	137	0	11	302	440
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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, %	4	4	4	2	2	2	7	7	7	2	2	2
Cap, veh/h	255	451	384	284	483	3	373	817	695	14	166	242
Arrive On Green	0.11	0.25	0.25	0.13	0.26	0.26	0.22	0.46	0.00	0.01	0.25	0.25
Sat Flow, veh/h	1740	1827	1553	1774	1848	13	1691	1776	1509	1774	671	978
Grp Volume(v), veh/h	225	580	547	302	0	738	341	137	0	11	0	742
Grp Sat Flow(s),veh/h/ln	1740	1827	1553	1774	0	1860	1691	1776	1509	1774	0	1650
Q Serve(g_s), s	11.5	30.0	30.0	15.4	0.0	31.7	23.9	5.5	0.0	0.8	0.0	30.0
Cycle Q Clear(g_c), s	11.5	30.0	30.0	15.4	0.0	31.7	23.9	5.5	0.0	0.8	0.0	30.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	255	451	384	284	0	486	373	817	695	14	0	408
V/C Ratio(X)	0.88	1.28	1.43	1.06	0.00	1.52	0.91	0.17	0.00	0.81	0.00	1.82
Avail Cap(c_a), veh/h	280	451	384	284	0	486	563	817	695	152	0	408
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.3	45.7	45.7	35.5	0.0	44.8	46.2	19.2	0.0	60.1	0.0	45.7
Incr Delay (d2), s/veh	24.8	144.1	206.1	70.7	0.0	243.4	14.2	0.1	0.0	67.9	0.0	378.6
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	7.3	33.1	34.8	15.1	0.0	49.1	12.7	2.7	0.0	0.6	0.0	56.5
LnGrp Delay(d),s/veh	57.1	189.8	251.8	106.3	0.0	288.3	60.4	19.3	0.0	128.1	0.0	424.3
LnGrp LOS	E	F	F	F		F	E	B		F		F
Approach Vol, veh/h		1352			1040			478			753	
Approach Delay, s/veh		192.8			235.4			48.6			420.0	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.3	36.7	5.5	60.9	20.0	35.0	31.4	35.0
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	15.4	30.0	10.4	30.0	15.4	30.0	40.4	30.0
Max Q Clear Time (g_c+I1), s	13.5	33.7	2.8	7.5	17.4	32.0	25.9	32.0
Green Ext Time (p_c), s	0.1	0.0	0.0	7.0	0.0	0.0	0.9	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	233.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	435	0	55	0	0	0	135	125	0	0	480	543
Future Volume (vph)	435	0	55	0	0	0	135	125	0	0	480	543
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00				1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00
Frt	1.00		0.85				1.00	1.00			0.98	0.85
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736		1553				1752	1845			1718	1469
Flt Permitted	0.95		1.00				0.13	1.00			1.00	1.00
Satd. Flow (perm)	1736		1553				246	1845			1718	1469
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	478	0	60	0	0	0	148	137	0	0	527	597
RTOR Reduction (vph)	0	0	38	0	0	0	0	0	0	0	3	267
Lane Group Flow (vph)	478	0	22	0	0	0	148	137	0	0	596	258
Confl. Peds. (#/hr)									5	5		
Confl. Bikes (#/hr)									2			3
Heavy Vehicles (%)	4%	4%	4%	92%	92%	92%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm				D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	28.4		28.4				35.0	39.6			30.0	30.0
Effective Green, g (s)	28.4		28.4				35.0	39.6			30.0	30.0
Actuated g/C Ratio	0.37		0.37				0.45	0.51			0.39	0.39
Clearance Time (s)	4.6		4.6				4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	635		568				207	941			664	567
v/s Ratio Prot							c0.05	0.07			c0.35	
v/s Ratio Perm	c0.28		0.01				0.28					0.18
v/c Ratio	0.75		0.04				0.71	0.15			0.90	0.46
Uniform Delay, d1	21.5		15.8				16.2	10.1			22.4	17.7
Progression Factor	1.00		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2	5.0		0.0				11.1	0.1			14.8	0.6
Delay (s)	26.6		15.8				27.3	10.1			37.2	18.3
Level of Service	C		B				C	B			D	B
Approach Delay (s)		25.4			0.0			19.0			28.4	
Approach LOS		C			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	77.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	482	92	170	569	80	87	95	95	140	335	180
Future Volume (veh/h)	135	482	92	170	569	80	87	95	95	140	335	180
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1845	1845	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	147	524	100	185	618	87	95	103	103	152	364	196
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	3	3	3	2	2	2	1	1	1
Cap, veh/h	258	457	87	280	497	70	241	234	234	466	328	177
Arrive On Green	0.08	0.30	0.30	0.10	0.31	0.31	0.07	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1774	1518	290	1757	1580	222	1774	848	848	1792	1147	618
Grp Volume(v), veh/h	147	0	624	185	0	705	95	0	206	152	0	560
Grp Sat Flow(s),veh/h/ln	1774	0	1808	1757	0	1802	1774	0	1696	1792	0	1765
Q Serve(g_s), s	3.7	0.0	20.0	4.7	0.0	20.9	2.4	0.0	6.7	3.9	0.0	19.0
Cycle Q Clear(g_c), s	3.7	0.0	20.0	4.7	0.0	20.9	2.4	0.0	6.7	3.9	0.0	19.0
Prop In Lane	1.00		0.16	1.00		0.12	1.00		0.50	1.00		0.35
Lane Grp Cap(c), veh/h	258	0	544	280	0	567	241	0	468	466	0	505
V/C Ratio(X)	0.57	0.00	1.15	0.66	0.00	1.24	0.39	0.00	0.44	0.33	0.00	1.11
Avail Cap(c_a), veh/h	295	0	544	293	0	567	295	0	485	503	0	505
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	16.7	0.0	23.2	16.4	0.0	22.8	17.3	0.0	19.8	15.2	0.0	23.7
Incr Delay (d2), s/veh	0.7	0.0	86.0	3.9	0.0	124.2	0.4	0.0	0.2	0.1	0.0	73.5
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	1.8	0.0	22.8	2.5	0.0	29.8	1.2	0.0	3.1	1.9	0.0	19.4
LnGrp Delay(d),s/veh	17.4	0.0	109.2	20.4	0.0	147.0	17.7	0.0	20.1	15.4	0.0	97.2
LnGrp LOS	B		F	C		F	B		C	B		F
Approach Vol, veh/h		771			890			301			712	
Approach Delay, s/veh		91.7			120.7			19.3			79.8	
Approach LOS		F			F			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	25.4	9.1	22.8	10.0	24.5	8.5	23.5
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.0	20.0	7.0	19.0
Max Q Clear Time (g_c+I1), s	5.7	22.9	5.9	8.7	6.7	22.0	4.4	21.0
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.0
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	38.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	83	176	474	81	179	1017
Future Vol, veh/h	83	176	474	81	179	1017
Conflicting Peds, #/hr	34	10	0	34	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	5	5	3	3
Mvmt Flow	92	196	527	90	199	1130

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2168	616	0	0	651	0
Stage 1	606	-	-	-	-	-
Stage 2	1562	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	~ 52	494	-	-	931	-
Stage 1	548	-	-	-	-	-
Stage 2	192	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 38	473	-	-	922	-
Mov Cap-2 Maneuver	~ 38	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	146	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	292.7	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	38	473	922	-
HCM Lane V/C Ratio	-	-	2.427	0.413	0.216	-
HCM Control Delay (s)	-	-	$ 875.3	17.9	10	-
HCM Lane LOS	-	-	F	C	A	-
HCM 95th %tile Q(veh)	-	-	10.2	2	0.8	-

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	1	2	670	8	12	1345
Future Vol, veh/h	1	2	670	8	12	1345
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	2	2
Mvmt Flow	1	2	744	9	13	1494

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2278	757	0	0	757	0
Stage 1	753	-	-	-	-	-
Stage 2	1525	-	-	-	-	-
Critical Hdwy	7.1	6.2	-	-	4.12	-
Critical Hdwy Stg 1	6.1	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	29	411	-	-	854	-
Stage 1	405	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	28	408	-	-	851	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	405	-	-	-	-	-
Stage 2	146	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	851	-
HCM Lane V/C Ratio	-	-	0.016	0.016	-
HCM Control Delay (s)	-	-	22.3	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	16	44	619	21	66	1265
Future Vol, veh/h	16	44	619	21	66	1265
Conflicting Peds, #/hr	4	4	0	4	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	18	49	696	24	74	1421

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2285	715	0	0	723	0
Stage 1	711	-	-	-	-	-
Stage 2	1574	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.12	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.218	-
Pot Cap-1 Maneuver	43	427	-	-	879	-
Stage 1	483	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	39	424	-	-	876	-
Mov Cap-2 Maneuver	127	-	-	-	-	-
Stage 1	481	-	-	-	-	-
Stage 2	169	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	261	876	-
HCM Lane V/C Ratio	-	-	0.258	0.085	-
HCM Control Delay (s)	-	-	23.5	9.5	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1	0.3	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	20	145	0	0	104	5	70	0	10	5	0	15
Future Vol, veh/h	20	145	0	0	104	5	70	0	10	5	0	15
Conflicting Peds, #/hr	2	0	1	2	0	3	1	0	2	3	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	3	3	3	2	2	2	0	0	0	0	0	0
Mvmt Flow	26	188	0	0	135	6	91	0	13	6	0	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	145	0	0	190	0	0	392	387	193	391	383	143
Stage 1	-	-	-	-	-	-	242	242	-	141	141	-
Stage 2	-	-	-	-	-	-	150	145	-	250	242	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1431	-	-	1384	-	-	571	551	854	572	553	910
Stage 1	-	-	-	-	-	-	766	709	-	867	784	-
Stage 2	-	-	-	-	-	-	857	781	-	759	709	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1428	-	-	1380	-	-	548	537	850	551	539	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	548	537	-	551	539	-
Stage 1	-	-	-	-	-	-	749	693	-	847	782	-
Stage 2	-	-	-	-	-	-	837	779	-	730	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0	12.7	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	1428	-	-	1380	-	-	780
HCM Lane V/C Ratio	0.181	0.018	-	-	-	-	-	0.033
HCM Control Delay (s)	12.7	7.6	0	-	0	-	-	9.8
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	15	140	10	5	99	5	5	0	5	5	0	5
Future Vol, veh/h	15	140	10	5	99	5	5	0	5	5	0	5
Conflicting Peds, #/hr	6	0	7	1	0	0	7	0	1	0	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	1	1	1	3	3	3	0	0	0	0	0	0
Mvmt Flow	18	171	12	6	121	6	6	0	6	6	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	190	0	0	366	365	185	359	369	137
Stage 1	-	-	-	-	-	-	220	220	-	142	142	-
Stage 2	-	-	-	-	-	-	146	145	-	217	227	-
Critical Hdwy	4.11	-	-	4.13	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.227	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1458	-	-	1378	-	-	594	566	862	600	563	917
Stage 1	-	-	-	-	-	-	787	725	-	866	783	-
Stage 2	-	-	-	-	-	-	861	781	-	790	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1448	-	-	1377	-	-	574	548	855	583	546	906
Mov Cap-2 Maneuver	-	-	-	-	-	-	574	548	-	583	546	-
Stage 1	-	-	-	-	-	-	771	710	-	849	775	-
Stage 2	-	-	-	-	-	-	845	773	-	773	705	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.3	10.3	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	687	1448	-	-	1377	-	-	709
HCM Lane V/C Ratio	0.018	0.013	-	-	0.004	-	-	0.017
HCM Control Delay (s)	10.3	7.5	0	-	7.6	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	96	44	5	0	66	20	5	0	0	10	0	28
Future Vol, veh/h	96	44	5	0	66	20	5	0	0	10	0	28
Conflicting Peds, #/hr	0	0	0	1	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	0	0	0	0	0	0	10	10	10
Mvmt Flow	139	64	7	0	96	29	7	0	0	14	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	126	0	0	72	0	0	477	473	69	458	461	111
Stage 1	-	-	-	-	-	-	347	347	-	111	111	-
Stage 2	-	-	-	-	-	-	130	126	-	347	350	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.5	6.2	7.2	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.2	5.6	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4	3.3	3.59	4.09	3.39
Pot Cap-1 Maneuver	1460	-	-	1541	-	-	502	493	1000	500	486	921
Stage 1	-	-	-	-	-	-	673	638	-	875	788	-
Stage 2	-	-	-	-	-	-	878	796	-	653	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1540	-	-	443	443	998	461	437	920
Mov Cap-2 Maneuver	-	-	-	-	-	-	443	443	-	461	437	-
Stage 1	-	-	-	-	-	-	606	574	-	788	787	-
Stage 2	-	-	-	-	-	-	839	795	-	588	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.1	0	13.3	10.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	443	1460	-	-	1540	-	-	729
HCM Lane V/C Ratio	0.016	0.095	-	-	-	-	-	0.076
HCM Control Delay (s)	13.3	7.7	0	-	0	-	-	10.3
HCM Lane LOS	B	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	9	30	50	5	0	11
Future Vol, veh/h	9	30	50	5	0	11
Conflicting Peds, #/hr	1	0	0	1	1	1
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	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	44	74	7	0	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	82	0	-	0	150	79
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	72	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1528	-	-	-	847	987
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	956	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1527	-	-	-	838	985
Mov Cap-2 Maneuver	-	-	-	-	838	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1527	-	-	-	985
HCM Lane V/C Ratio	0.009	-	-	-	0.016
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Future Vol, veh/h	25	0	10	0	0	0	15	0	0	0	0	30
Conflicting Peds, #/hr	1	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	92	68	92	92	92	68	68	92	92	68	68
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	0	0
Mvmt Flow	37	0	15	0	0	0	22	0	0	0	0	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	15	0	0	105	83	7	83	90	3
Stage 1	-	-	-	-	-	-	81	81	-	2	2	-
Stage 2	-	-	-	-	-	-	24	2	-	81	88	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1603	-	-	880	811	1075	904	804	1087
Stage 1	-	-	-	-	-	-	932	832	-	1021	898	-
Stage 2	-	-	-	-	-	-	999	898	-	927	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1632	-	-	1603	-	-	829	792	1075	887	785	1085
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	792	-	887	785	-
Stage 1	-	-	-	-	-	-	911	813	-	997	897	-
Stage 2	-	-	-	-	-	-	957	897	-	906	807	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	0	9.5	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	829	1632	-	-	1603	-	-	1085
HCM Lane V/C Ratio	0.027	0.023	-	-	-	-	-	0.041
HCM Control Delay (s)	9.5	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	670	120	205	1005	230	225	437	395	95	179	75
Future Volume (veh/h)	50	670	120	205	1005	230	225	437	395	95	179	75
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1881	1881	1900	1881	1881	1881	1900	1900	1900
Adj Flow Rate, veh/h	53	705	126	216	1058	242	237	460	416	100	188	79
Adj No. of Lanes	1	2	0	2	2	0	1	1	1	1	1	0
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	1	1	1	1	1	1	0	0	0
Cap, veh/h	49	799	143	242	891	203	200	565	586	50	274	115
Arrive On Green	0.03	0.27	0.27	0.07	0.31	0.31	0.11	0.30	0.30	0.03	0.22	0.22
Sat Flow, veh/h	1774	2988	534	3476	2879	655	1792	1881	1580	1810	1264	531
Grp Volume(v), veh/h	53	417	414	216	655	645	237	460	416	100	0	267
Grp Sat Flow(s),veh/h/ln	1774	1770	1752	1738	1787	1748	1792	1881	1580	1810	0	1796
Q Serve(g_s), s	2.0	16.2	16.2	4.4	22.2	22.2	8.0	16.2	16.1	2.0	0.0	9.8
Cycle Q Clear(g_c), s	2.0	16.2	16.2	4.4	22.2	22.2	8.0	16.2	16.1	2.0	0.0	9.8
Prop In Lane	1.00		0.30	1.00		0.37	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	49	473	469	242	553	541	200	565	586	50	0	389
V/C Ratio(X)	1.07	0.88	0.88	0.89	1.18	1.19	1.19	0.81	0.71	1.98	0.00	0.69
Avail Cap(c_a), veh/h	49	518	513	242	553	541	200	682	684	50	0	501
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	0.00	1.00
Uniform Delay (d), s/veh	34.8	25.2	25.2	33.1	24.8	24.8	31.8	23.2	19.3	34.8	0.0	25.9
Incr Delay (d2), s/veh	149.3	14.3	14.6	30.1	100.2	104.3	122.6	5.3	2.1	504.5	0.0	1.4
Initial Q Delay(d3),s/veh	2.3	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	3.0	9.8	9.7	3.1	26.1	26.2	10.7	9.3	7.3	8.1	0.0	5.0
LnGrp Delay(d),s/veh	186.5	39.5	39.8	63.2	125.0	129.1	154.5	28.5	21.4	539.3	0.0	27.3
LnGrp LOS	F	D	D	E	F	F	F	C	C	F		C
Approach Vol, veh/h		884			1516			1113			367	
Approach Delay, s/veh		48.4			117.9			52.7			166.8	
Approach LOS		D			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	28.2	8.0	27.5	11.0	25.2	14.0	21.5
Change Period (Y+Rc), s	* 6	* 6	6.0	6.0	* 6	* 6	6.0	6.0
Max Green Setting (Gmax), s	* 2	* 21	2.0	26.0	* 5	* 21	8.0	20.0
Max Q Clear Time (g_c+I1), s	4.0	24.2	4.0	18.2	6.4	18.2	10.0	11.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.8	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	88.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	290	55	90	190	50	95	612	103	35	309	115
Future Volume (veh/h)	125	290	55	90	190	50	95	612	103	35	309	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	0.99		0.99	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1900	1900	1900	1863	1863	1900	1881	1881	1900
Adj Flow Rate, veh/h	129	299	57	93	196	52	98	631	106	36	319	119
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	0	0	0	2	2	2	1	1	1
Cap, veh/h	407	505	96	329	489	130	432	732	123	230	612	228
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1085	1484	283	1028	1437	381	939	1552	261	725	1298	484
Grp Volume(v), veh/h	129	0	356	93	0	248	98	0	737	36	0	438
Grp Sat Flow(s),veh/h/ln	1085	0	1767	1028	0	1818	939	0	1812	725	0	1783
Q Serve(g_s), s	4.9	0.0	8.0	3.9	0.0	5.0	3.9	0.0	17.3	2.2	0.0	8.2
Cycle Q Clear(g_c), s	9.9	0.0	8.0	11.9	0.0	5.0	12.1	0.0	17.3	19.6	0.0	8.2
Prop In Lane	1.00		0.16	1.00		0.21	1.00		0.14	1.00		0.27
Lane Grp Cap(c), veh/h	407	0	601	329	0	619	432	0	855	230	0	841
V/C Ratio(X)	0.32	0.00	0.59	0.28	0.00	0.40	0.23	0.00	0.86	0.16	0.00	0.52
Avail Cap(c_a), veh/h	448	0	668	368	0	688	438	0	867	235	0	853
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	15.8	0.0	13.0	18.0	0.0	12.1	13.1	0.0	11.3	20.0	0.0	8.9
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.5	0.0	0.4	0.3	0.0	8.8	0.3	0.0	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	1.5	0.0	4.0	1.2	0.0	2.6	1.0	0.0	10.5	0.5	0.0	4.1
LnGrp Delay(d),s/veh	16.3	0.0	14.2	18.4	0.0	12.5	13.4	0.0	20.1	20.3	0.0	9.4
LnGrp LOS	B		B	B		B	B		C	C		A
Approach Vol, veh/h		485			341			835			474	
Approach Delay, s/veh		14.8			14.1			19.3			10.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		27.1		20.8		27.1		20.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		22.9		18.1		22.9		18.1
Max Q Clear Time (g_c+I1), s		19.3		11.9		21.6		13.9
Green Ext Time (p_c), s		2.5		2.5		1.0		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	5	75	0	5	5	870	200	30	804	5
Future Volume (veh/h)	0	0	5	75	0	5	5	870	200	30	804	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.96		0.91	1.00		0.96	1.00		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
Adj Sat Flow, veh/h/ln	1900	1583	1900	1900	1863	1900	1863	1863	1900	1845	1845	1900
Adj Flow Rate, veh/h	0	0	5	77	0	5	5	897	206	31	829	5
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	20	20	20	2	2	2	2	2	2	3	3	3
Cap, veh/h	0	0	177	315	5	11	417	983	226	227	1238	7
Arrive On Green	0.00	0.00	0.14	0.14	0.00	0.14	0.68	0.68	0.68	0.68	0.68	0.68
Sat Flow, veh/h	0	0	1292	1241	34	83	655	1454	334	504	1831	11
Grp Volume(v), veh/h	0	0	5	82	0	0	5	0	1103	31	0	834
Grp Sat Flow(s),veh/h/ln	0	0	1292	1358	0	0	655	0	1788	504	0	1842
Q Serve(g_s), s	0.0	0.0	0.2	2.5	0.0	0.0	0.2	0.0	25.2	2.7	0.0	12.9
Cycle Q Clear(g_c), s	0.0	0.0	0.2	2.7	0.0	0.0	13.1	0.0	25.2	27.8	0.0	12.9
Prop In Lane	0.00		1.00	0.94		0.06	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	177	331	0	0	417	0	1209	227	0	1246
V/C Ratio(X)	0.00	0.00	0.03	0.25	0.00	0.00	0.01	0.00	0.91	0.14	0.00	0.67
Avail Cap(c_a), veh/h	0	0	485	653	0	0	420	0	1219	230	0	1256
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.0	19.1	0.0	0.0	8.5	0.0	6.6	18.4	0.0	4.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	10.4	0.3	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	1.0	0.0	0.0	0.0	0.0	15.5	0.4	0.0	6.7
LnGrp Delay(d),s/veh	0.0	0.0	18.1	19.5	0.0	0.0	8.5	0.0	17.0	18.6	0.0	6.0
LnGrp LOS			B	B			A		B	B		A
Approach Vol, veh/h		5			82			1108			865	
Approach Delay, s/veh		18.1			19.5			17.0			6.4	
Approach LOS		B			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		37.1		11.1		37.1		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.9		18.1		32.9		18.1
Max Q Clear Time (g_c+I1), s		27.2		2.2		29.8		4.7
Green Ext Time (p_c), s		5.1		0.3		2.8		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	535	5	10	295	353	5	20	25	220	5	170
Future Volume (veh/h)	500	535	5	10	295	353	5	20	25	220	5	170
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1881	1900	1863	1900	1900	1845	1845
Adj Flow Rate, veh/h	532	569	5	11	314	376	5	21	27	234	5	181
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	323	1071	9	25	770	508	89	130	145	0	314	260
Arrive On Green	0.18	0.58	0.58	0.01	0.41	0.41	0.17	0.17	0.17	0.00	0.17	0.17
Sat Flow, veh/h	1792	1861	16	1792	1881	1553	59	763	854	0	1845	1529
Grp Volume(v), veh/h	532	0	574	11	314	376	53	0	0	0	5	181
Grp Sat Flow(s),veh/h/ln	1792	0	1878	1792	1881	1553	1676	0	0	0	1845	1529
Q Serve(g_s), s	9.0	0.0	9.3	0.3	5.9	14.9	0.0	0.0	0.0	0.0	0.1	5.6
Cycle Q Clear(g_c), s	9.0	0.0	9.3	0.3	5.9	14.9	1.3	0.0	0.0	0.0	0.1	5.6
Prop In Lane	1.00		0.01	1.00		1.00	0.09		0.51	0.00		1.00
Lane Grp Cap(c), veh/h	323	0	1081	25	770	508	364	0	0	0	314	260
V/C Ratio(X)	1.65	0.00	0.53	0.43	0.41	0.74	0.15	0.00	0.00	0.00	0.02	0.70
Avail Cap(c_a), veh/h	323	0	1081	179	904	618	446	0	0	0	776	643
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	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	6.5	24.4	10.5	26.9	17.7	0.0	0.0	0.0	17.2	19.5
Incr Delay (d2), s/veh	304.9	0.0	0.5	11.2	0.3	3.8	0.2	0.0	0.0	0.0	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.7	0.0	4.9	0.2	3.1	6.9	0.6	0.0	0.0	0.0	0.1	2.6
LnGrp Delay(d),s/veh	325.4	0.0	7.0	35.6	10.8	30.7	17.9	0.0	0.0	0.0	17.3	22.9
LnGrp LOS	F		A	D	B	C	B				B	C
Approach Vol, veh/h		1106			701			53			186	
Approach Delay, s/veh		160.1			21.8			17.9			22.7	
Approach LOS		F			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	24.4	0.0	12.5	4.7	32.7		12.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	9.0	24.0	6.0	11.0	5.0	28.0		21.0
Max Q Clear Time (g_c+I1), s	11.3	16.9	0.0	3.3	2.3	11.3		7.6
Green Ext Time (p_c), s	0.0	3.3	0.0	0.5	0.0	6.8		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	96.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	515	110	452	345	230	153	565	392	280	479	125
Future Volume (veh/h)	275	515	110	452	345	230	153	565	392	280	479	125
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.94	1.00		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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1863	1863	1863	1863	1863	1863	1845	1845	1900
Adj Flow Rate, veh/h	284	531	113	466	356	237	158	582	404	289	494	129
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	281	541	588	221	476	584	164	598	676	219	492	128
Arrive On Green	0.16	0.29	0.29	0.12	0.26	0.26	0.09	0.32	0.32	0.12	0.35	0.35
Sat Flow, veh/h	1792	1881	1530	1774	1863	1513	1774	1863	1490	1757	1391	363
Grp Volume(v), veh/h	284	531	113	466	356	237	158	582	404	289	0	623
Grp Sat Flow(s),veh/h/ln	1792	1881	1530	1774	1863	1513	1774	1863	1490	1757	0	1755
Q Serve(g_s), s	24.3	43.4	7.7	19.3	27.3	17.8	13.8	47.8	32.0	19.3	0.0	54.8
Cycle Q Clear(g_c), s	24.3	43.4	7.7	19.3	27.3	17.8	13.8	47.8	32.0	19.3	0.0	54.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	281	541	588	221	476	584	164	598	676	219	0	620
V/C Ratio(X)	1.01	0.98	0.19	2.11	0.75	0.41	0.97	0.97	0.60	1.32	0.00	1.00
Avail Cap(c_a), veh/h	281	541	588	221	476	584	164	598	676	219	0	620
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	0.81	0.00	0.81
Uniform Delay (d), s/veh	65.3	54.8	32.2	67.8	53.1	35.3	70.1	51.9	32.7	67.8	0.0	50.1
Incr Delay (d2), s/veh	56.6	34.3	0.7	514.4	10.3	2.1	59.9	29.8	1.5	168.0	0.0	33.5
Initial Q Delay(d3),s/veh	0.1	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	16.4	27.7	3.4	41.0	15.4	7.8	9.5	29.5	13.4	19.6	0.0	32.3
LnGrp Delay(d),s/veh	122.0	89.1	32.9	582.2	63.4	37.4	130.0	81.8	34.1	235.9	0.0	83.6
LnGrp LOS	F	F	C	F	E	D	F	F	C	F		F
Approach Vol, veh/h		928			1059			1144			912	
Approach Delay, s/veh		92.3			285.9			71.6			131.9	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	45.0	25.0	55.0	25.0	50.0	20.0	60.0
Change Period (Y+Rc), s	* 5.7	5.4	* 5.7	* 5.2	* 5.7	5.4	* 5.7	* 5.2
Max Green Setting (Gmax), s	* 24	34.6	* 19	* 50	* 19	44.6	* 14	* 35
Max Q Clear Time (g_c+I1), s	26.3	29.3	21.3	49.8	21.3	45.4	15.8	56.8
Green Ext Time (p_c), s	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	146.1
HCM 2010 LOS	F

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	402	345	1187	205	225	845
Future Volume (veh/h)	402	345	1187	205	225	845
Number	7	14	6	16	5	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1900	1863	1863	1863	1863
Adj Flow Rate, veh/h	410	352	1211	209	230	862
Adj No. of Lanes	0	0	1	1	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	192	164	939	780	266	1256
Arrive On Green	0.21	0.21	0.50	0.50	0.11	0.67
Sat Flow, veh/h	912	783	1863	1547	1774	1863
Grp Volume(v), veh/h	763	0	1211	209	230	862
Grp Sat Flow(s),veh/h/ln	1697	0	1863	1547	1774	1863
Q Serve(g_s), s	20.0	0.0	48.0	7.4	8.0	26.7
Cycle Q Clear(g_c), s	20.0	0.0	48.0	7.4	8.0	26.7
Prop In Lane	0.54	0.46		1.00	1.00	
Lane Grp Cap(c), veh/h	357	0	939	780	266	1256
V/C Ratio(X)	2.14	0.00	1.29	0.27	0.86	0.69
Avail Cap(c_a), veh/h	357	0	939	780	336	1256
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	37.6	0.0	23.6	13.5	28.0	9.4
Incr Delay (d2), s/veh	522.3	0.0	138.4	0.2	17.0	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	61.0	0.0	60.6	8.3	7.1	14.2
LnGrp Delay(d),s/veh	560.0	0.0	162.0	13.7	45.1	11.0
LnGrp LOS	F		F	B	D	B
Approach Vol, veh/h	763		1420			1092
Approach Delay, s/veh	560.0		140.2			18.1
Approach LOS	F		F			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		70.2		25.0	16.2	54.0		
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		
Max Green Setting (Gmax), s		48.0		20.0	14.0	48.0		
Max Q Clear Time (g_c+I1), s		28.7		22.0	10.0	50.0		
Green Ext Time (p_c), s		16.1		0.0	0.2	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	197.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	617	525	305	490	35	260	560	295	10	90	210
Future Volume (veh/h)	365	617	525	305	490	35	260	560	295	10	90	210
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1900	1881	1881	1881	1881	1881	1900
Adj Flow Rate, veh/h	380	643	547	318	510	36	271	583	0	10	94	219
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
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	1	1	1
Cap, veh/h	360	638	542	290	546	39	299	687	584	13	103	241
Arrive On Green	0.15	0.34	0.34	0.13	0.31	0.31	0.17	0.37	0.00	0.01	0.21	0.21
Sat Flow, veh/h	1792	1881	1599	1792	1737	123	1792	1881	1599	1792	503	1172
Grp Volume(v), veh/h	380	643	547	318	0	546	271	583	0	10	0	313
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1792	0	1860	1792	1881	1599	1792	0	1674
Q Serve(g_s), s	18.4	40.7	40.7	15.4	0.0	34.2	17.8	34.2	0.0	0.7	0.0	21.9
Cycle Q Clear(g_c), s	18.4	40.7	40.7	15.4	0.0	34.2	17.8	34.2	0.0	0.7	0.0	21.9
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	360	638	542	290	0	584	299	687	584	13	0	344
V/C Ratio(X)	1.06	1.01	1.01	1.10	0.00	0.93	0.91	0.85	0.00	0.79	0.00	0.91
Avail Cap(c_a), veh/h	360	638	542	290	0	620	335	687	584	73	0	391
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	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	39.6	39.6	36.8	0.0	39.9	49.0	35.0	0.0	59.4	0.0	46.6
Incr Delay (d2), s/veh	62.6	37.6	40.8	80.9	0.0	20.9	25.4	9.8	0.0	66.8	0.0	23.2
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	18.1	27.6	24.1	16.0	0.0	21.0	10.9	19.5	0.0	0.6	0.0	12.3
LnGrp Delay(d),s/veh	96.1	77.2	80.4	117.7	0.0	60.8	74.5	44.8	0.0	126.2	0.0	69.8
LnGrp LOS	F	F	F	F		E	E	D		F		E
Approach Vol, veh/h		1570			864			854			323	
Approach Delay, s/veh		82.9			81.8			54.2			71.5	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	42.7	5.4	48.8	20.0	45.7	24.6	29.6
Change Period (Y+Rc), s	4.6	5.0	4.6	5.0	4.6	5.0	4.6	5.0
Max Green Setting (Gmax), s	18.4	40.0	4.9	35.0	15.4	40.0	22.4	28.0
Max Q Clear Time (g_c+I1), s	20.4	36.2	2.7	36.2	17.4	42.7	19.8	23.9
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	0.0	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	74.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	670	0	80	0	5	0	500	455	0	0	210	670
Future Volume (vph)	670	0	80	0	5	0	500	455	0	0	210	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Lane Util. Factor	1.00		1.00		0.95		1.00	1.00			0.95	0.95
Frpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00		0.85		1.00		1.00	1.00			0.92	0.85
Flt Protected	0.95		1.00		1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1779		1599		1910		1787	1881			1626	1504
Flt Permitted	0.75		1.00		1.00		0.21	1.00			1.00	1.00
Satd. Flow (perm)	1412		1599		1910		388	1881			1626	1504
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	698	0	83	0	5	0	521	474	0	0	219	698
RTOR Reduction (vph)	0	0	57	0	0	0	0	0	0	0	32	348
Lane Group Flow (vph)	698	0	26	0	5	0	521	474	0	0	445	92
Confl. Peds. (#/hr)	5					5			7	7		
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	1%	1%	1%	89%	89%	89%	1%	1%	1%	2%	2%	2%
Turn Type	Perm		Perm		NA		D.P+P	NA			NA	Perm
Protected Phases					7		5	2			6	
Permitted Phases	8		8	7			6					6
Actuated Green, G (s)	29.1		29.1		1.0		37.9	42.5			19.4	19.4
Effective Green, g (s)	29.1		29.1		1.0		37.9	42.5			19.4	19.4
Actuated g/C Ratio	0.31		0.31		0.01		0.41	0.46			0.21	0.21
Clearance Time (s)	4.6		4.6		4.6		4.6	5.0			5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	443		502		20		438	863			340	315
v/s Ratio Prot					c0.00		c0.24	0.25			c0.27	
v/s Ratio Perm	c0.49		0.02				0.25					0.06
v/c Ratio	1.58		0.05		0.25		1.19	0.55			1.31	0.29
Uniform Delay, d1	31.7		22.1		45.4		24.8	18.1			36.6	30.8
Progression Factor	1.00		1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	269.7		0.0		6.5		106.0	0.7			158.1	0.5
Delay (s)	301.5		22.2		51.9		130.8	18.8			194.7	31.3
Level of Service	F		C		D		F	B			F	C
Approach Delay (s)		271.8			51.9			77.5			116.3	
Approach LOS		F			D			E			F	

Intersection Summary			
HCM 2000 Control Delay	146.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	92.6	Sum of lost time (s)	20.8
Intersection Capacity Utilization	107.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	535	68	205	739	145	171	415	160	95	200	65
Future Volume (veh/h)	180	535	68	205	739	145	171	415	160	95	200	65
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1881	1881	1900	1881	1881	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	188	557	71	214	770	151	178	432	167	99	208	68
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
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	0	0	0	0	0	0
Cap, veh/h	283	485	62	297	465	91	427	368	142	244	359	117
Arrive On Green	0.10	0.30	0.30	0.11	0.30	0.30	0.10	0.28	0.28	0.08	0.26	0.26
Sat Flow, veh/h	1792	1634	208	1792	1526	299	1810	1299	502	1810	1368	447
Grp Volume(v), veh/h	188	0	628	214	0	921	178	0	599	99	0	276
Grp Sat Flow(s),veh/h/ln	1792	0	1842	1792	0	1825	1810	0	1801	1810	0	1815
Q Serve(g_s), s	4.8	0.0	19.9	5.4	0.0	20.4	4.7	0.0	19.0	2.6	0.0	8.9
Cycle Q Clear(g_c), s	4.8	0.0	19.9	5.4	0.0	20.4	4.7	0.0	19.0	2.6	0.0	8.9
Prop In Lane	1.00		0.11	1.00		0.16	1.00		0.28	1.00		0.25
Lane Grp Cap(c), veh/h	283	0	547	297	0	556	427	0	510	244	0	476
V/C Ratio(X)	0.66	0.00	1.15	0.72	0.00	1.66	0.42	0.00	1.17	0.41	0.00	0.58
Avail Cap(c_a), veh/h	294	0	547	297	0	556	441	0	510	296	0	514
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	16.7	0.0	23.6	16.5	0.0	23.3	16.0	0.0	24.0	17.9	0.0	21.5
Incr Delay (d2), s/veh	4.1	0.0	86.5	7.2	0.0	302.8	0.2	0.0	97.4	0.4	0.0	0.8
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	2.7	0.0	23.2	3.3	0.0	57.0	2.4	0.0	23.2	1.3	0.0	4.5
LnGrp Delay(d),s/veh	20.8	0.0	110.1	23.7	0.0	326.1	16.2	0.0	121.4	18.3	0.0	22.3
LnGrp LOS	C		F	C		F	B		F	B		C
Approach Vol, veh/h		816			1135			777			375	
Approach Delay, s/veh		89.5			269.1			97.3			21.2	
Approach LOS		F			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	24.9	8.6	23.5	10.6	24.4	10.0	22.1
Change Period (Y+Rc), s	3.5	4.5	3.5	4.5	3.5	4.5	3.5	4.5
Max Green Setting (Gmax), s	7.6	20.0	7.0	19.0	7.1	19.9	7.0	19.0
Max Q Clear Time (g_c+I1), s	6.8	22.4	4.6	21.0	7.4	21.9	6.7	10.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	148.9
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	94.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	81	160	1215	109	211	724
Future Vol, veh/h	81	160	1215	109	211	724
Conflicting Peds, #/hr	11	6	0	11	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	1	1	2	2
Mvmt Flow	86	170	1293	116	224	770

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2592	1368	0	0	1420	0
Stage 1	1362	-	-	-	-	-
Stage 2	1230	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 28	180	-	-	479	-
Stage 1	238	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 15	177	-	-	476	-
Mov Cap-2 Maneuver	~ 15	-	-	-	-	-
Stage 1	236	-	-	-	-	-
Stage 2	145	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 960.7	0	4.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	15	177	476	-
HCM Lane V/C Ratio	-	-	5.745	0.962	0.472	-
HCM Control Delay (s)	-	-	$ 2639.2	110.9	19.1	-
HCM Lane LOS	-	-	F	F	C	-
HCM 95th %tile Q(veh)	-	-	11.7	7.6	2.5	-

Notes

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

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	8	16	1279	6	9	997
Future Vol, veh/h	8	16	1279	6	9	997
Conflicting Peds, #/hr	4	6	0	4	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	9	18	1437	7	10	1120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2590	1452	0	0	1450	0
Stage 1	1446	-	-	-	-	-
Stage 2	1144	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	28	162	-	-	467	-
Stage 1	219	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	27	160	-	-	464	-
Mov Cap-2 Maneuver	127	-	-	-	-	-
Stage 1	218	-	-	-	-	-
Stage 2	298	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.9	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	147	464	-
HCM Lane V/C Ratio	-	-	0.183	0.022	-
HCM Control Delay (s)	-	-	34.9	12.9	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	36	79	1196	39	101	869
Future Vol, veh/h	36	79	1196	39	101	869
Conflicting Peds, #/hr	6	6	0	6	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	1	1	2	2
Mvmt Flow	40	88	1329	43	112	966

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2553	1363	0	0	1378	0
Stage 1	1357	-	-	-	-	-
Stage 2	1196	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	~ 30	183	-	-	498	-
Stage 1	242	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 23	181	-	-	495	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	241	-	-	-	-	-
Stage 2	222	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	91	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	154	495	-
HCM Lane V/C Ratio	-	-	0.83	0.227	-
HCM Control Delay (s)	-	-	91	14.4	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	5.5	0.9	-

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	28	282	0	0	187	15	5	0	0	10	0	24
Future Vol, veh/h	28	282	0	0	187	15	5	0	0	10	0	24
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	1	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	1	1	1	20	20	20	0	0	0
Mvmt Flow	32	320	0	0	213	17	6	0	0	11	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	321	0	0	622	617	323	609	608	225
Stage 1	-	-	-	-	-	-	385	385	-	223	223	-
Stage 2	-	-	-	-	-	-	237	232	-	386	385	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.3	6.7	6.4	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.68	4.18	3.48	3.5	4	3.3
Pot Cap-1 Maneuver	1348	-	-	1245	-	-	375	383	678	410	413	819
Stage 1	-	-	-	-	-	-	603	581	-	784	723	-
Stage 2	-	-	-	-	-	-	728	680	-	641	614	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1345	-	-	1243	-	-	353	371	676	399	400	816
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	371	-	399	400	-
Stage 1	-	-	-	-	-	-	585	564	-	760	722	-
Stage 2	-	-	-	-	-	-	702	679	-	621	596	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	15.4	11.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	353	1345	-	-	1243	-	-	624
HCM Lane V/C Ratio	0.016	0.024	-	-	-	-	-	0.062
HCM Control Delay (s)	15.4	7.7	0	-	0	-	-	11.2
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	7	280	5	5	190	5	5	0	5	5	0	12
Future Vol, veh/h	7	280	5	5	190	5	5	0	5	5	0	12
Conflicting Peds, #/hr	3	0	1	1	0	3	1	0	1	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	8	311	6	6	211	6	6	0	6	6	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	318	0	0	565	561	318	563	561	220
Stage 1	-	-	-	-	-	-	330	330	-	228	228	-
Stage 2	-	-	-	-	-	-	235	231	-	335	333	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1361	-	-	1248	-	-	439	439	727	440	439	825
Stage 1	-	-	-	-	-	-	687	649	-	779	719	-
Stage 2	-	-	-	-	-	-	773	717	-	683	647	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1357	-	-	1244	-	-	426	432	724	430	432	820
Mov Cap-2 Maneuver	-	-	-	-	-	-	426	432	-	430	432	-
Stage 1	-	-	-	-	-	-	682	644	-	771	713	-
Stage 2	-	-	-	-	-	-	754	711	-	671	642	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	11.9	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	536	1357	-	-	1244	-	-	647
HCM Lane V/C Ratio	0.021	0.006	-	-	0.004	-	-	0.029
HCM Control Delay (s)	11.9	7.7	0	-	7.9	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	203	82	5	0	85	5	5	0	0	10	0	100
Future Vol, veh/h	203	82	5	0	85	5	5	0	0	10	0	100
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	0	3	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	226	91	6	0	94	6	6	0	0	11	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	103	0	0	97	0	0	701	648	97	648	648	103
Stage 1	-	-	-	-	-	-	545	545	-	100	100	-
Stage 2	-	-	-	-	-	-	156	103	-	548	548	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1502	-	-	1503	-	-	356	392	965	386	392	957
Stage 1	-	-	-	-	-	-	526	522	-	911	816	-
Stage 2	-	-	-	-	-	-	851	814	-	524	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1499	-	-	275	328	962	337	328	952
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	328	-	337	328	-
Stage 1	-	-	-	-	-	-	442	438	-	763	814	-
Stage 2	-	-	-	-	-	-	750	812	-	439	437	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.5	0	18.4	10.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	275	1498	-	-	1499	-	-	817
HCM Lane V/C Ratio	0.02	0.151	-	-	-	-	-	0.15
HCM Control Delay (s)	18.4	7.8	0	-	0	-	-	10.2
HCM Lane LOS	C	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.5	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	12	60	45	5	5	25
Future Vol, veh/h	12	60	45	5	5	25
Conflicting Peds, #/hr	2	0	0	1	1	2
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	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	14	69	52	6	6	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	59	0	-	0	155	59
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	98	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1558	-	-	-	841	1012
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	931	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	830	1008
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	921	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	973
HCM Lane V/C Ratio	0.009	-	-	-	0.035
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Future Vol, veh/h	45	0	10	0	0	0	5	0	0	0	0	35
Conflicting Peds, #/hr	3	0	6	0	0	0	6	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	92	85	92	92	92	85	85	92	92	85	85
Heavy Vehicles, %	0	2	0	2	2	2	0	0	2	2	3	3
Mvmt Flow	53	0	12	0	0	0	6	0	0	0	0	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	4	0	0	18	0	0	146	122	12	116	128	10
Stage 1	-	-	-	-	-	-	118	118	-	4	4	-
Stage 2	-	-	-	-	-	-	28	4	-	112	124	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.22	7.12	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.53	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.318	3.518	4.027	3.327
Pot Cap-1 Maneuver	1631	-	-	1599	-	-	827	772	1069	861	761	1068
Stage 1	-	-	-	-	-	-	891	802	-	1018	890	-
Stage 2	-	-	-	-	-	-	994	897	-	893	791	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1599	-	-	766	740	1063	837	730	1059
Mov Cap-2 Maneuver	-	-	-	-	-	-	766	740	-	837	730	-
Stage 1	-	-	-	-	-	-	857	771	-	982	887	-
Stage 2	-	-	-	-	-	-	950	894	-	864	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	9.7	8.5
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1622	-	-	1599	-	-	1059
HCM Lane V/C Ratio	0.008	0.033	-	-	-	-	-	0.039
HCM Control Delay (s)	9.7	7.3	0	-	0	-	-	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Appendix E: Trip Generation Calculations

Northwest University - Observed Trip Generation Summary (2016)

	In	Out	Total	Trip Rate	Factor to daily
Max AM PEAK	167	113	280	0.23 trips/total students	4.22
	60%	40%			
Max PM PEAK	198	295	493	0.40 trips/total students	4.45
	40%	60%			

Fall 2015
910 undergrads
150 adults (evening
170 graduates (evenings)
1230 total students

Northwest University - Observed Trip Generation Summary (2016)

NWU TMC SUMMARY COMPILED (March 2016)

SITE

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
7:00 AM	2	0	3	2	2	0	1	1	7	2	0	0	2	5	27	17	10			
7:15 AM	4	0	3	7	0	0	3	2	7	1	2	2	0	7	38	19	19			
7:30 AM	2	0	11	5	0	0	0	1	6	0	0	0	1	5	31	20	11			
7:45 AM	2	0	12	10	1	2	2	1	19	1	1	1	4	12	68	41	27	164	97	67
8:00 AM	6	0	15	5	2	0	0	0	17	3	2	2	3	11	66	45	21	203	125	78
8:15 AM	2	5	10	7	0	1	7	4	21	4	0	0	4	7	72	44	28	237	150	87
8:30 AM	0	0	6	8	1	1	3	1	14	4	0	1	5	11	55	29	26	261	159	102
8:45 AM	5	1	15	8	4	2	1	0	17	13	1	0	6	14	87	49	38	280	167	113
TOTAL	**23**	**6**	**75**	**52**	**10**	**6**	**17**	**10**	**108**	**28**	**6**	**6**	**25**	**72**	**444**	**264**	**180**	**658**	**386**	**272**

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
4:00 PM	2	2	13	20	0	0	1	3	7	10	2	2	8	9	79	33	46			
4:15 PM	0	1	8	13	1	3	3	4	4	8	2	2	9	8	66	27	39			
4:30 PM	0	4	15	14	2	1	3	0	2	17	1	2	7	6	74	30	44			
4:45 PM	0	2	13	14	2	2	4	0	5	4	1	1	8	7	63	33	30	282	123	159
5:00 PM	0	3	13	18	4	4	0	2	5	7	2	6	9	4	77	33	44	280	123	157
5:15 PM	2	2	16	11	1	0	1	1	4	4	2	2	7	5	58	33	25	272	129	143
5:30 PM	0	2	14	9	3	4	1	1	3	9	3	0	12	4	65	36	29	263	135	128
5:45 PM	0	1	25	11	4	2	1	1	13	1	0	1	6	14	80	49	31	280	151	129
TOTAL	**4**	**17**	**117**	**110**	**17**	**16**	**14**	**12**	**43**	**60**	**13**	**16**	**66**	**57**	**562**	**274**	**288**	**765**	**392**	**373**

Northwest University - Observed Trip Generation Summary (2016)

NWU TMC SUMMARY COMPILED (APR 13 2016)
SITE

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
7:00 AM	3	1	4	6	0	0	1	0	9	1	0	0	1	4	30	18	12			
7:15 AM	3	1	6	6	2	0	0	0	3	1	1	1	0	8	32	15	17			
7:30 AM	4	0	9	9	1	2	0	4	5	4	2	0	2	5	47	23	24			
7:45 AM	5	1	15	5	1	0	2	4	18	6	2	1	3	10	73	46	27	182	102	80
8:00 AM	5	0	12	4	2	4	1	2	15	1	1	1	3	7	58	39	19	210	123	87
8:15 AM	1	1	9	4	1	0	1	0	8	3	0	2	2	6	38	22	16	216	130	86
8:30 AM	0	2	11	7	2	0	0	0	10	6	2	0	4	6	50	29	21	219	136	83
8:45 AM	1	2	25	7	1	2	2	0	19	3	1	5	6	13	87	55	32	233	145	88
TOTAL	**22**	**8**	**91**	**48**	**10**	**8**	**7**	**10**	**87**	**25**	**9**	**10**	**21**	**59**	**415**	**247**	**168**	**590**	**353**	**237**

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
4:00 PM	1	5	14	26	1	4	2	6	4	8	3	8	9	7	98	34	64			
4:15 PM	1	0	17	19	4	4	2	2	5	22	0	2	8	5	91	37	54			
4:30 PM	1	7	17	29	3	4	2	4	11	32	1	4	9	8	132	44	88			
4:45 PM	0	3	10	12	3	1	1	5	12	28	0	2	8	3	88	34	54	409	149	260
5:00 PM	2	8	15	11	8	5	2	6	9	24	2	14	17	8	131	55	76	442	170	272
5:15 PM	1	0	10	22	3	2	1	6	3	22	2	2	14	10	98	34	64	449	167	282
5:30 PM	2	2	20	30	1	8	2	4	11	16	1	2	7	11	117	44	73	434	167	267
5:45 PM	4	0	17	28	5	7	4	4	19	24	4	6	12	13	147	65	82	493	198	295
TOTAL	**12**	**25**	**120**	**177**	**28**	**35**	**16**	**37**	**74**	**176**	**13**	**40**	**84**	**65**	**902**	**347**	**555**	**1,264**	**490**	**774**

Northwest University - Observed Trip Generation Summary (2016)

NWU TMC SUMMARY COMPILED (APR 14 2016)
SITE

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
7:00 AM	4	0	3	14	0	0	1	0	3	3	1	2	2	2	35	14	21			
7:15 AM	1	0	6	6	1	0	1	0	8	0	0	2	0	10	35	17	18			
7:30 AM	1	0	16	14	1	0	1	0	7	0	3	0	1	6	50	30	20			
7:45 AM	3	0	19	24	2	0	1	0	25	2	2	8	2	14	102	54	48	222	115	107
8:00 AM	4	0	11	12	1	0	1	4	14	4	3	0	2	8	64	36	28	251	137	114
8:15 AM	1	0	9	10	0	4	2	4	7	4	2	6	6	2	57	27	30	273	147	126
8:30 AM	1	0	8	10	3	0	0	0	12	11	1	2	6	1	55	31	24	278	148	130
8:45 AM	2	0	19	10	1	2	7	0	38	13	2	2	5	18	119	74	45	295	168	127
TOTAL	**17**	**0**	**91**	**100**	**9**	**6**	**14**	**8**	**114**	**37**	**14**	**22**	**24**	**61**	**517**	**283**	**234**	**748**	**415**	**333**

TIME	1 (IN)	1 (OUT)	2 (IN)	2 (OUT)	3 (IN)	3 (OUT)	4 (IN)	4 (OUT)	5 (IN)	5 (OUT)	6 (IN)	6 (OUT)	7 (IN)	7 (OUT)	Sum	Sum In	Sum Out	Peak Hour	Peak In	Peak Out
4:00 PM	2	6	14	25	2	0	3	8	3	12	2	12	7	18	114	33	81			
4:15 PM	2	2	8	24	3	6	2	2	4	16	1	8	10	26	114	30	84			
4:30 PM	1	2	16	28	4	2	0	4	1	10	1	8	9	8	94	32	62			
4:45 PM	0	10	16	13	4	8	0	4	2	12	1	4	16	14	104	39	65	426	134	292
5:00 PM	0	2	12	19	3	8	0	6	13	11	3	12	9	26	124	40	84	436	141	295
5:15 PM	2	1	30	15	1	6	0	4	9	12	0	4	8	8	100	50	50	422	161	261
5:30 PM	1	3	18	30	2	4	3	4	6	6	0	4	6	16	103	36	67	431	165	266
5:45 PM	2	3	21	15	1	4	2	4	6	9	0	2	10	14	93	42	51	420	168	252
TOTAL	**10**	**29**	**135**	**169**	**20**	**38**	**10**	**36**	**44**	**88**	**8**	**54**	**75**	**130**	**846**	**302**	**544**	**1,142**	**430**	**712**

Appendix F: Shared Parking Calculations

Northwest University Parking Summary

Total On-street Supply	Week 1 On-Street Demand				Week 2 On-Street Demand				△ (Week2 - Week1) On-Street Demand			
535 Parking Spaces	9:00 AM	10:00 AM	11:00 AM	12:00 PM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	9:00 AM	10:00 AM	11:00 AM	12:00 PM
	29	33	34	**35**	48	**53**	52	50	19	**20**	18	15

Total On-Campus Supply	Week 1 On-Campus Demand			
	9:00 AM	10:00 AM	11:00 AM	12:00 PM
1168 spaces	635	**638**	598	564
	54%	**55%**	51%	48%

Average Peak Parking Rate Per Student	
0.73	Peak parking rate per undergrad
0.50	Peak parking rate per total students

Specific Lot	Supply	9:00 AM	10:00 AM	11:00 AM	12:00 PM
Student Housing East	53	26	21	20	23
114th Ave NE	9	8	7	7	8
F.I.R.s Apartments	152	68	60	57	68
Barton Building (Back Lot)	42	8	6	8	16
Barton Building (Front Lot)	90	59	53	46	41
Amundsen Music Cener	90	46	50	39	33
Bronson/Rice/Williams/Free Halls	56	50	54	44	40
Health and Sciences Center	129	44	48	42	43
Maintenance	13	9	10	9	8
Hurst Library/Perks Residence Hall	86	77	73	67	55
110th Way NE	10	9	10	10	9
NE 58th Way	9	7	9	7	7
Northwest Dining Hall/Gray Residence Hall/ Beatty Residence Hall	122	90	96	105	85
Crowder Residence Hall	51	42	41	34	37
Davis Building	48	21	24	25	24
Greeley Center	74	25	25	28	22
Northwest Pavillion	91	12	17	15	16
111th Ave NE	13	11	11	11	9
111th Ave NE	12	9	8	9	4
Pecota Student Center	12	9	10	10	12
110th Ln NE	6	5	5	5	4
Total	**1168**	**635**	**638**	**598**	**564**

Permit Type	Supply	9:00 AM	10:00 AM	11:00 AM	12:00 PM
Unmarked	861	505	519	485	440
Handicap	22	0	0	0	0
Visitor	25	7	7	9	10
Residents	201	102	88	84	99
Service	15	10	11	11	10
Carpool	6	2	3	3	0
Faculty/Staff	38	9	10	6	5
TOTAL	1168	635	638	598	564

Northwest University Weekday Shared Parking Demand Calculations

Time	University/College[1]					Tennis Center[2]		Public Field Use[3]		Total Parking Demand
	Percent of Peak Period[4]	Existing Demand	6-Year Demand Increase[5]	6-20 Year Demand Increase[5]	Total Future Demand	Percent of Peak Period	Demand	Percent of Peak Period	Demand	
8:00 AM	80%	510	153	166	829	20%	4	0%	0	833
9:00 AM	100%	635	191	207	1033	26%	6	0%	0	1039
10:00 AM	100%	638	192	207	1037	51%	11	0%	0	1048
11:00 AM	94%	598	180	194	972	48%	10	0%	0	982
12:00 PM	88%	564	170	183	917	42%	9	0%	0	926
1:00 PM	94%	600	180	196	976	47%	10	0%	0	986
2:00 PM	87%	555	167	180	902	38%	8	0%	0	910
3:00 PM	88%	561	169	182	912	41%	9	0%	0	921
4:00 PM	83%	530	159	173	862	61%	13	90%	144	1019
5:00 PM	78%	498	150	162	810	84%	18	100%	160	988
6:00 PM	72%	459	138	149	746	91%	19	80%	128	893
7:00 PM	69%	440	132	143	715	100%	21	100%	160	896
8:00 PM	66%	421	127	137	685	50%	11	10%	16	712
9:00 PM	62%	396	119	129	644	10%	2	0%	0	646
Peak Demand		**638**	**192**	**207**	**1037**		**21**		**160**	**1048**

Notes:

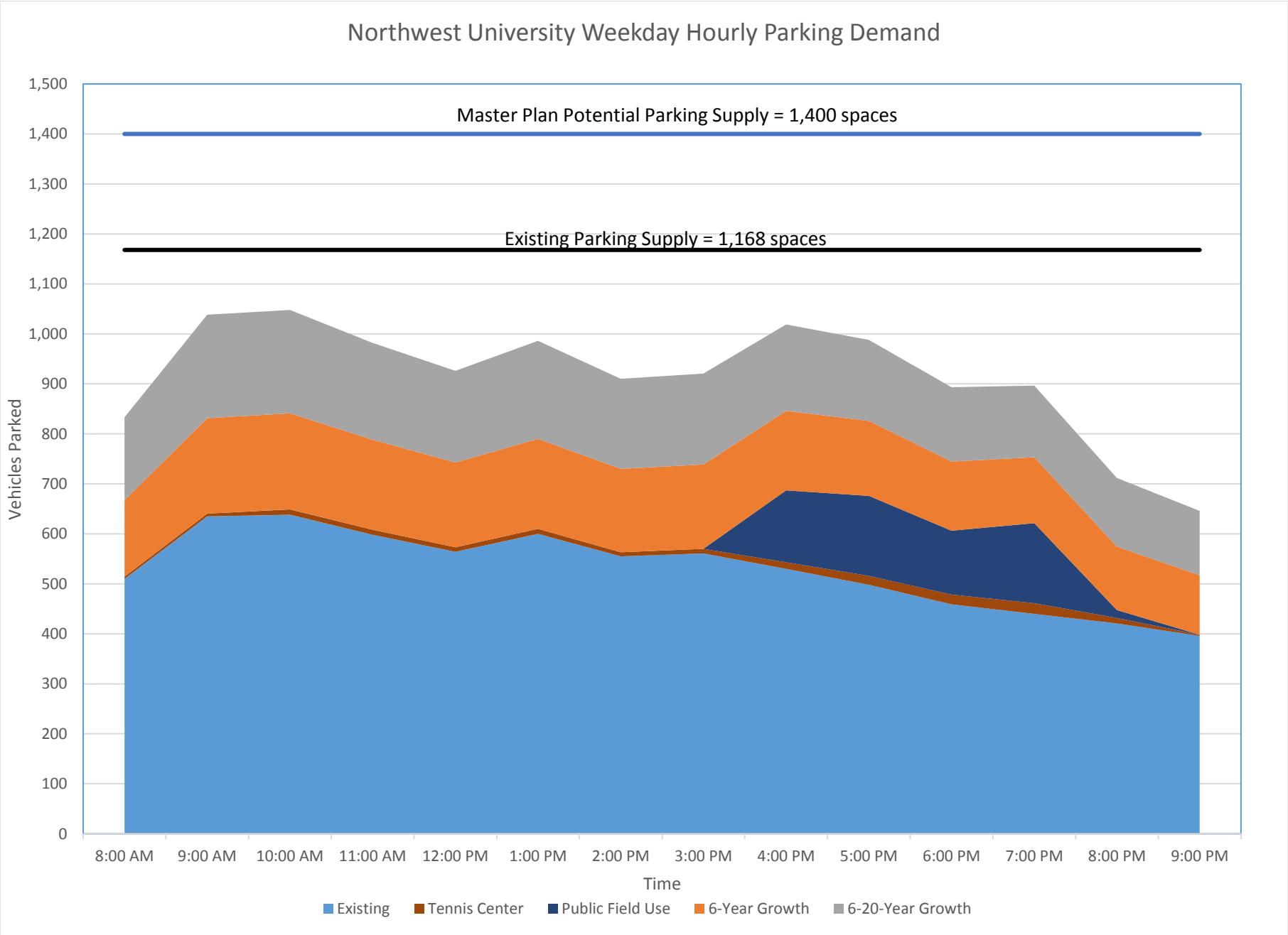
1. Based on data collection at Northwest University and University/College LU 550 from Institute of Transportation Engineers *Parking Generation, 4 Edition.*

2. Tennis Center based on Racquet/Tennis Club LU 491 average demand and percent of peak based on health/fitness club LU 492from Institute of Transportation Engineers Parking Generation, 4 Edition.

3. Peak demand assumes 128 children and 32 coaches with practice starting at 5:00 p.m. It assumes all the coaches and 90 percent of the children would arrive between 4-5 p.m. and 25 percent of the parents would leave after dropping off the children. All the coaches are assumed to drive alone. Practice is assumed to be 1-hour. A second practice is not assumed on a weekday.

4. Percent of peak period based on existing parking counts collected in March 2016 and ITE *Parking Generation,* 4th Edition.

5. Proportional demand increase based on the future number of students.


Northwest University Weekday Hourly Parking Demand
Master Plan Potential Parking Supply = 1,400 spaces
Existing Parking Supply = 1,168 spaces
Vehicles Parked
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
Time
Existing
Tennis Center
Public Field Use
6-Year Growth
6-20-Year Growth

Appendix G: Transportation Concurrency Test Notice

CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.587.3800
www.kirklandwa.gov

MEMORANDUM

To: Tony Leavitt, Senior Planner

From: Thang Nguyen, Transportation Engineer

Date: May 25 2016

Subject: NW University Master Plan Traffic Concurrency Test Notice, Tran16-00967.

The purpose of this memo is to inform you that the proposed NW University Master Plan has pass traffic concurrency. This concurrency test notice is valid for five years from May 25, 2016; provided, that a certificate of concurrency is issued for a building within one year of the date of issuance of the concurrency test notice or within two years of the date of issuance of the concurrency test notice if an extension is timely requested and granted. In no case shall this concurrency test notice be valid for more than six years from May 25, 2016. The applicant must apply for a new concurrency test for any buildings approved for phased development that have not been issued a building permit within five years from the date of this notice.

Project Description
The project site is located at 5520 108th Avenue NE, the University is proposing an 8-phase development of the campus as summarized in Table 1. Approximately 250 to 350 new parking spaces are proposed to be located in a parking garage under the tennis center, gymnasium and Welcome Center. The applicant is not proposing any new driveway. The full build-out of the proposed master plan will build approximately 340,915 net new gross floor area within eight buildings. The residence building will have approximately 172 dormitory rooms with approximately 300 beds.

Currently, there are 1,230 students that attends classes at the campus. The University estimates the day-time student enrollment at the campus will increase by approximately 370 students by 2022 and 770 students by 2037. It is estimated that there will be a total of 1,600 students in 2022 and 2,000 students in 2037. The tennis center will have six courts and the sport field will accommodate 16 youth soccer teams.

Trip Generation
Based on the trip generation calculations, the project is forecasted to generate 2,130 daily trips, 107 net new AM net new and 332 net new PM peak hour trips in 2022; 3,820 daily trips, 199 net new AM net new and 460 net new PM peak hour trips in 2037. For traffic concurrency testing, the proposed project is calculated to generate 503 PM peak hour person trips in 2022 and 659 PM peak hour person trips in 2037. Table 2

summarizes the trip generation for the proposed project. A more detail explanation of the trip generation is provided in the Northwest University Master Plan Trip Generation memorandum prepared by Transpo Group dated April 26, 2016 (attached).

Table 1. University Master Plan Development Plan

Phase	Description	Timing	Proposed Gross Building Size	Existing Gross Building Removed	Net New Development Building Size
1	Tennis Center	2017-2020	116,198 sf	-	116,198 sf
2	Gymnasium (Pavilion)	2019-2022	58,528 sf	-23,460 sf	35,068 sf
3	Welcome Center (Pecola Center)	2019-2020	37,767 sf	-7,400 sf	30,367 sf
4	Residence Hall[1]	2021-2024	83,013 sf	-	83,013 sf
5	Field House	2021-2024	3,500 sf	-	3,500 sf
6	Chapel Expansion	2022-2024	3,000 sf	-	3,000 sf
7	Fitness Center	2029-2032	32,259 sf	-	32,259 sf
8	Theater & Academic Bldg. (Ness Academic Center)	2031-2037	70,910 sf	-33,400 sf	37,510 sf
	TOTAL		**405,175 sf**	**-64,260 sf**	**340,915 sf**

1. New residence hall would include 172 dorm rooms with about 300 beds.

Table 2. Trip Generation Summary

	2022		**2037**	
	Vehicle Trips	Person Trips[1]	Vehicle Trips	Person Trips[1]
Weekday				
NW Campus	1560	-	3,250	-
Tennis Center	250	-	250	-
Sport Field	320	-	320	-
Total	**2,130**	**-**	**3,820**	-
AM Peak Hr.				
NW Campus	85	-	177	-
Tennis Center	22	-	22	-
Sport Field	0	-	0	-
Total	**107**	**-**	**199**	-
PM Peak Hr.				
NW Campus	118	145	246	301
Tennis Center	22	38	22	38
Sport Field	192	320	192	320
Total	**332**	**503**	**460**	**659**

1. Person trip is only relevant to PM peak hour for concurrency testing.

Traffic Concurrency Test
The proposed master plan was tested for traffic concurrency to ensure that the city has the traffic capacity to accommodate the new person trips generated by the proposed master plan. The current available PM peak hour person trip capacity is based on the adopted 2015-2020 6-year Capital Improvement Program (CIP). This concurrency test is only valid for development phases that are anticipated to be built within the next six years. Development phases beyond the next six years will require concurrency testing when the applicant submits for building permits for those later phases.

Currently, the City has capacity for 5,471 new PM peak hour person trips. This project will generate 503 new PM peak hour person trips within the next six years and 659 new PM peak hour person trips at full build-out. The current person trip capacity can adequately support the proposed project. Therefore, the proposed project passes traffic concurrency.

This memo will serve as the concurrency test notice for the proposed project. Per *Section 25.10.020 Procedures* of the KMC (Kirkland Municipal Code), this Concurrency Test Notice will expire in one year (May 25, 2017) unless a development permit and certificate of concurrency are issued or an extension is granted.

EXPIRATION
The concurrency test notice shall expire and a new concurrency test application is required unless:

1. A complete SEPA checklist, traffic impact analysis and all required documentation are submitted to the City within 90 calendar days of the concurrency test notice (August 23, 2016).

2. A Certificate of Concurrency is issued or an extension is requested and granted by the Public Works Department within one year of issuance of the concurrency test notice. (A Certificate of Concurrency is issued at the same time a development permit or building permit is issued if the applicant holds a valid concurrency test notice.)

3. A Certificate of Concurrency shall expire six years from the date of issuance of the concurrency test notice unless all building permits are issued for buildings approved under the concurrency test notice.

APPEALS
The concurrency test notice may be appealed by the public or agency with jurisdiction. The deadline for the appeal is June 8, 2016. Concurrency appeals are heard before the Hearing Examiner along with any applicable SEPA appeal. For more information, refer to the Kirkland Municipal Code, Title 25.

Certificate of Concurrency

A certificate of concurrency shall be issued at the same time a development permit or building permit is issued; provided, that the applicant holds a valid concurrency test notice, and pays any fee and/or meets any condition specified on the concurrency test notice. Each building within an approved phased development shall be issued a certificate of concurrency.

If this concurrency test notice expires before a certificate of concurrency is issued, then the assigned impacts for the proposed master plan can be reassigned to another development.

Kirkland Transportation Management Plan Report & Program Description

The City of Kirkland Transportation Management Plan (TMP) ordinance requires building management to implement programs that encourage alternatives to drive-alone commuting to their worksites. Reducing commute trips is expected to help improve air quality, reduce traffic congestion, and decrease the use of petroleum fuels.

Buildings and office parks affected by the TMP ordinance must submit a *Report & Program Description* form for their worksite. The information is used by the city and the Washington State Department of Transportation (WSDOT) to help develop and maintain effective TMP programs.

Please complete the following report as carefully and completely as you can. Specific instructions are included in sections requiring detailed answers. If you would like to provide more information about your TMP program, attach additional pages with your comments.

If, after filing the report for this reporting period, your organization is unable to completely implement its TMP program, contact your local jurisdiction to amend your program. If you have any questions on how to fill out this form, please call Pamela Cook, your City of Kirkland TMP representative, at 206-477-5819.

An electronic version of this form can be downloaded from King County Metro's CTR web site at: http://www.kingcounty.gov/transportation/CommuteSolutions/Report/KirklandTMP.aspx

Worksite Description

1. Site/building name/Property Management name: Northwest University	
2. Site address: 5520 108th Avenue NE	3. Zip code: 98033
4. Owner/developer/property manager (official contact name): Northwest University	
5. Official contact address/zip (if different than site): PO Box 579 / 98033	
6. Official phone number: 425-822-8266	7. Official fax number: 425-889-5224
8. Site Transportation Coordinator (TC) name: Ashley Coila	
9. TC address (if different than site):	10. Zip code: 98033
11. TC phone number: 425-889-5749	12. TC fax number: 425-739-0695
13. TC e-mail address: ashley.coila@northwestu.edu	

Tenant Information

14. Total number of tenants: 1			15. Total number of employees: 495	
16. Is site a school? Yes ☒ No ☐				
16a. (if yes)	Number of employees: 495		Number of students: 1,230	
*If site has multiple tenant companies, list the following information for each tenant. If you have more than six tenants, please submit them as an attachment with the Report.				
Tenant Name	**# of Employees**	**#of Parking Spaces**	**Contact Name**	**Contact Phone**

Parking Information

17. Total on-site parking spaces: 1,414		
18. Carpool/vanpool: 6	19. Visitor only: 25	20. Disabled: 22
21. Average daily number of vacant on-site parking spaces: 533		
Monthly commuter parking rates: employees - free, students- $70 per acedemic year		
22. SOV:$	23. Carpool:$	24. Vanpool:$
25. Is other public pay-parking available nearby? Yes ☐ No ☒		
26. Is free public parking available nearby? Yes ☒ No ☐		
27. Briefly explain how you manage and monitor your worksite's parking program. If this organization does not provide any parking for the building, please indicate that in this space. Campus Security monitors the parking lots. If there is an employee parked in a designated carpool spot without a permit they will receive a ticket. Employees can apply to receive the permits to allow them to park in these spaces. Applications are submitted to the ETC, if approved permits are issued by Campus Security.		

Site Characteristics and Amenities

Describe the characteristics and amenities of this site.

28. Gross sq. ft all buildings: 840,000	29. Sq. footage space leased: 116,100
30. Type of use (office mixed use, medical/dental, school): School	

31. Services within 1/4 mile? (check below if available)

bus stop	☒	restaurant(s)	☐	ATM	☐	child care	☐
mailing service	☐	dry cleaner	☐	pharmacy	☐	gym	☒

	Do you offer?	
	Yes	No
32. Commuter information center(s)	☒	☐
33. Covered spaces for bicycles	☐	☒
34. Uncovered spaces for bicycles	☒	☐
35. Clothes lockers	☒	☐
36. Showers	☒	☐
37. On-site loading/unloading zones or shelters for non-SOVs	☒	☐
38. Other:	☐	☒

39. What changes, if any, are anticipated in the next 12 months?
Not at this time.

Financial Incentives

Identify the average monthly incentives, if any, offered to employees at this worksite.

	Do you offer?		Average monthly incentive paid per person
	Yes	No	
40. Transit (bus)	☐	☒	$
If yes, How is the incentive provided?			
Passes distributed: Onsite ☐ Vouchers ☐ Reimbursement ☐			
41. Ferry	☐	☒	$
42. Vanpool	☐	☒	$
43. Carpool	☐	☒	$
44. Walking	☐	☒	$
45. Bicycling	☐	☒	$

Financial Incentives (cont.)

46. Train (Rail)	☐	☒	$
47. ORCA/Other pass program	☐	☒	$
48. Other transportation allowance/stipend:	☐	☒	$
49. Opportunity for TMP participants to receive cash or prizes, paid leave, other incentives	☐	☒	
Explain: We were unable to offer the pre-tax benefit for purchasing the ORCA Bus pass due to the language in the agreement.			
50. What changes to incentive and subsidy programs, if any, are anticipated in the next 12 months: None			

Program Elements/Activities

Required Elements: State laws require your organization to implement a set of measures designed to achieve TMP goals. Your program must include at least one element. Some local ordinances may have other requirements. Please fill in the required information for only those program elements included in your TMP program.

Transportation Coordinator: ***Required Element****: The City of Kirkland TMP requires your organization to appoint a Transportation Coordinator (TC).*

51. Where is name/phone of TC displayed? Davis, Caf, Library, 6710, Barton (both floors), Greeley, Pecota, Online.	
52. How long has TC been in this position? 2 years	53. Percent of time spent on TC activities: 5%

Promotions/Marketing: ***Required Element****: The City of Kirkland TMP requires your organization to distribute information to promote your commuter benefits program and NDAT (Non Drive Alone Trip) commute alternatives****, at minimum****, at least once a year to all site occupants and to new occupants upon arrival.* **Attach a Program Summary which should include the activities listed below that was implemented.**

Distribution of commuter benefits program information:	
54. How often is information distributed? Annually	55. Date of last distribution: 12/10/2015
56. Check the other promotions below, if any, that were implemented:	
Rideshare Week ☐ Bike to Work Day ☒ Other (please describe) ☒	

Traffic alert emails are distributed to employees when received.

Program Elements/Activities (cont.)

57. Do you have a newsletter/bulletin that is distributed to tenants, employees or students? Yes ☐ No ☒	
If yes, how often? na	If yes, please attach a copy of each commuter-related article or issue
58. Presented commuter information at meeting(s): Yes ☐ No ☒	
Nature of meeting(s): na	

TMP Program Elements: *Your TMP requires your organization to implement measures designed to reduce SOV commuting, some of which may be listed below. Please refer to your TMP for specific requirements.* Please note below all elements that have been implemented and offered to site occupants (please also include any that are in addition to those required):

Carpool/Vanpool Parking:	
59. Permits/stickers issued? Yes ☐ No ☒	60. If yes, number currently issued: 0
61. Average number of carpool/Vanpool parking spaces used per month: 0	
62. Personalized ridematching and/or regionally available service for building employees? Yes ☐ No ☒	
63. Guaranteed Ride Home Program: Yes ☐ No ☒	Miles per trip allowed: na
Average number of trips used this year: na	Number of trips/year allowed: na
64. Other Incentives (please describe; attach an additional sheet if necessary): We have 6 carpool parking spaces available. No one has applied for a permit at this time.	

Commitment Statement:

I understand that the site listed above is required by the city to implement a TMP. I am aware that the goal is to increase the site's NDAT trips. I have reviewed this report and the site has implemented elements as I have noted above.

Transportation Coordinator signature Ashley Gorth Date 4/10/14

Please email to Employer.Services@kingcounty.gov your completed report and a copy of your program summary/distribution piece. The summary is the memo or brochure you share with tenant employees that tells them what their benefits and/or amenities are. If unable to email, please mail to the address below.

King County Metro – CTR Services
Attn: Pamela Cook
KSC-TR-0434
201 S Jackson St
Seattle, WA 98104-3856

Why?

Cut Costs

If you drive to work alone you're burning about 340 gallons of gas. At $3.50 per gallon that is $1,190. Add just one person and you can both save nearly $600 in commute costs per year.

Stress Relief

Take time to read, chat with a friend or exercise while you commute.

Environment

710,000 pounds of petroleum and toxic chemicals flow into Puget Sound every year in the form of motor oil spill, drip, or runoff from pavement. [2]

Have An Impact

Average vehicle miles traveled (VMT) per employee at CTR affected worksites declined by 5.7% between 2007-2012, with total statewide VMT reduced by 161 million miles annually.

TAKE A MOMENT TO FIND OUT MORE ABOUT YOUR COMMUTE OPTIONS:

Find others who are interested in sharing the ride via the statewide online system:

www.RideShareOnline.com
206-625-4500 or 1-800-427-8249

Find out what transit options may work for you:

Transit Trip Planner
http://tripplanner.kingcounty.gov
206-553-3000

Community Transit
www.commtrans.org

Pierce Transit
www.piercetransit.org

Sound Transit
www.soundtransit.org

Washington State Ferries
www.wsdot.wa.gov/ferries

For more information, contact your Employee Transportation Coordinator:

Ashley Coila
425.889.5749
ashley.coila@northwestu.edu

Commute Trip Reduction Program

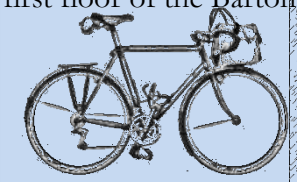
Commute Options for

Northwest University

Options:

Biking/Walking

If you are a bicyclist or walker make sure you take advantage of our showers located on the first floor of the Barton Building!



Carpool/Vanpool

To find find someone to share your commute with via carpool, vanpool or bike, go to:

www.RideShareOnline.com

Bus Transit

To find your transit route(s) to work go to: http://tripplanner.kingcounty.gov

Telework

(Per manager's approval)

NU Commuter Benefits

Transportation Updates:

- Receive email updates on local events and construction zones in the area.

In Washington State, more than half of our carbon dioxide comes from vehicles, so our commuting choices make a difference!

Source: Washington State Department of Ecology

Carpool Parking:

Take advantage of one of our six carpool parking spots. Register for a parking pass and enjoy close parking at Barton, Argue HSC, and Davis!

How to Register:

1. Download a Carpool Application on the Parking Information page on the Eagle Website: http://eagle.northwestu.edu/go/parking
2. Fill out application then submit to HR for approval.
3. Receive Carpool Parking Permit.

Shuttle Express:

Enjoy a discounted rate to the airport from NU Campus.

Pick up in front of Crowder Lobby

Reserve your ride at: http://shuttleexpress.hudsonltd.net/res?USERIDENTRY=NUSHUTTLE&LOGON=GO