Transportation Technical Report

H STREET/BENNING ROAD CORRIDOR

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District Department of Transportation

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TRANSPORTATION ENGINEERING/PLANNING

MOVING**FORWARD**THINKING™

H Street/Benning Road Corridor

Washington DC

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TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

Section 1
Executive Summary

EXECUTIVE SUMMARY

The District Department of Transportation (DDOT) has plans to develop a 37-mile long streetcar system in the District of Columbia. The purpose of the streetcar system is to provide high-capacity and high-quality transit service to District residents and visitors and invest in infrastructure that will catalyze economic development. The first streetcar project involved partially installing streetcar tracks along a 2.3 mile segment on the H/Benning Streetcar corridor. The installation was done in conjunction with the implementation of the DDOT Great Streets (streetscape) project. The recently completed streetscape project reduced the cross-sectional width of H Street from six lanes to four and Benning Road from eight lanes to six. In addition, this project constructed a median on Benning Road and made other improvements typical of street renovation work.

This report is a traffic study analyzing the impact on vehicular traffic by implementing the streetscape and streetcar projects along H Street and Benning Road in the District of Columbia. To assess potential impacts of the projects, a set of alternative scenarios were developed. The evaluation criteria were based on measures of effectiveness metrics that were computed for each of the scenarios. The metrics were per-vehicle delay, volume-to-capacity ratio, and level-of-service at intersections in the study area and travel times along the corridor.

The executive summary presents an overview of the study area and the two projects. Next, the scenarios are described and the performance metrics derived from the traffic analysis are presented. Finally, the results of the analysis are discussed and the conclusions are presented.

Project Overview

The H/Benning streetscape and streetcar projects occur along a 2.3 mile corridor from H Street NE/1st Street NE at the western end to Benning Road/Oklahoma Avenue NE at the eastern end. The western end of the streetcar project begins near Union Station, on the Hopscotch Bridge, at the entrance to the Union Station parking structure. The streetcar line continues east along H Street for approximately 1.3 miles and turns southeast onto Benning Road at the intersection of H Street / Benning Road / Maryland Avenue / Florida Avenue / Bladensburg Road (this intersection is referred to as the “Starburst”). The streetcar line then runs on Benning Road for approximately one mile until it reaches its eastern turnaround point just east of Oklahoma Avenue NE. There are 27 intersections in the study corridor; five of which are unsignalized.

Alternative Scenarios

The project team, in consultation with the client, developed a total of eight alternative scenarios for this study. Three of the scenarios were generated for the streetscape project and the remaining five for the streetcar project. The streetscape scenarios consist of a 2006 existing conditions scenario with separate ‘Build’ and ‘No-Build’ alternatives for the 2040 design year.

The streetcar scenario has a year 2012 existing conditions scenario. The additional scenarios for the streetcar were 'Build' and 'No-Build' for opening year 2013 and 'Build' and 'No-build' for design year 2040. The eight scenarios are listed in Table 1.

Table 1. H Street/Benning Road Project Scenarios

Scenario Number	Scenario Name	Analysis Year	Time Periods	Cross-section	Include Streetcar?	Model for Analysis
1a	Existing Conditions	2006	AM/PM	6/8 lane	No	Synchro
1b	Design Year No-Build	2040	AM/PM	6/8 lane	Yes	Synchro
1c	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro
2a	Existing Conditions	2012	AM/PM	4/6 lane	No	Synchro, VISSIM
2b	Opening Year No-Build	2013	AM/PM	4/6 lane	No	Synchro, VISSIM
2c	Opening Year Build	2013	AM/PM	4/6 lane	Yes	Synchro, VISSIM
2d	Design Year No-Build	2040	AM/PM	4/6 lane	No	Synchro, VISSIM
2e	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro, VISSIM

Below is a summary of each of the scenarios:

- Scenario 1a: models the existing conditions of the H Street/Benning Road corridor in the year 2006 with a general corridor cross-section of six to eight lanes.
- Scenario 1b: models the conditions in 2040 if the streetscape project is not constructed and the streetcar project is implemented as a separate planned improvement in the project corridor.
- Scenario 1c: represents a condition in 2040 where the streetscape project (a reduction in street width to a four- and six-lane cross-section) is implemented along with the specific planned improvements for the streetcar.
- Scenario 2a: represents baseline conditions for the streetcar study. This scenario models traffic conditions in the year 2012, with no streetcar in operation, existing signal timing, and existing traffic volumes.
- Scenario 2b: this is similar to scenario 2a, with the difference being a small increase in traffic volumes expected in the year 2013. No streetcar was included in this scenario.
- Scenario 2c: This alternative is similar to scenario 2b, showing a small increase in traffic volumes for the year 2013 with the addition of streetcar service.
- Scenario 2d: this alternative represents year 2040 No-Build future conditions in the corridor if the streetcar system was not constructed.
- Scenario 2e: this alternative incorporates traffic volumes developed from the 2040 streetcar travel demand model as well streetcar operations.

Traffic Analysis and Performance Metrics

Synchro traffic models were developed for each of the eight project scenarios for the a.m. and p.m. peak hours. Lane geometry included the number of lanes for each approach to an intersection, lane assignments, posted traffic speeds, and turn lane storage lengths. Traffic data included vehicle turning movement counts, pedestrians, bicycles, and heavy vehicles. DDOT provided signal timing information for existing conditions. Existing bus service was included in the travel demand model included lines B2: Bladensburg Road-Anacostia, D8: Hospital Center, X1, X3: Benning Road, X2: Benning Road-H Street, and X9: Benning Road-H Street Express.

Synchro traffic software was used to model the streetscape scenarios and to develop signal timing for the streetcar scenarios. VISSIM microsimulation software was required to capture the refined interaction between streetcars, vehicles movements, and complex signal timing in the streetcar. Once the streetcar is added to the H/Benning corridor, some intersections would require a dedicated traffic signal phase that is called when the streetcar is present. This is because streetcar movements such as lane changes or transition from center-running to side-running operation would place the streetcar in conflict with vehicles as it operates in a mixed-flow environment. From a Synchro standpoint, analysis of intersections with streetcar-only phases is challenging because the streetcar phase is not used in every cycle.

The Synchro models were used as a starting point in developing the VISSIM models. The study time periods for VISSIM were the same as for the Synchro models. Development of the VISSIM models followed the Federal Highway Administration's (FHWA) 7-step process as outlined in the FHWA's Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software. Calibration of the VISSIM model occurred for the "existing conditions" model, and the calibrated model then formed the basis for future conditions models. The existing conditions model was deemed calibrated when the volume, speed, and other operational observations satisfactorily replicated those observed in the field.

The traffic analysis results at the signalized intersections for all the scenarios modeled are presented in Table 2 though Table 9. The results are described using intersection LOS, per-vehicle delay, and the volume-to-capacity ratio (v/c) as measures of effectiveness (MOEs). A summary of the analysis for each scenario are given below:

- Scenario 1a: the results for the year 2006 existing conditions scenario show that vehicles flow smoothly through the network with little congestion and vehicle queuing during both the a.m. and p.m. peak hours. All study intersections operate at LOS 'D' or better.
- Scenario 1b: the results for the year 2040 No-Build scenario shows that congestion increases by the year 2040 such that the Starburst intersection operates above capacity during both the a.m. and p.m. peak hours, although the intersection operates at LOS 'D'. This is primarily related to increase in travel demand in the corridor.
- Scenario 1c: results for the year 2040 Streetscape scenario show that reducing the cross-section on H Street and Benning Road creates additional congestion on H Street and

Benning Road. The intersection at Benning Road/17th performs at LOS E during the a.m. peak period.

- Scenario 2a: for year 2012 existing conditions in the a.m. peak period, vehicles flow smoothly through the network with little congestion and vehicle queuing. The "Starburst" intersection operates at LOS 'C' during both time periods.
- Scenario 2b: year 2013 No-Build scenario would operate similarly to the year 2012 existing conditions. The a.m. and p.m. peak hours would have little congestion and vehicle queuing. The "Starburst" intersection would operate at LOS 'C' during both time periods.
- Scenario 2c: the addition of the streetcar for the year 2013 Build scenarios would impact vehicle flow due to the additional signal phases at H Street/3rd Street, westbound at the "Starburst" intersection, and at the eastern turnaround point. Improvements in signal timing associated with the addition of the streetcar operations have a positive effect on through traffic, lowering per-vehicle delay at some intersections. All intersections operate at LOS 'D' or better.
- Scenario 2d: the year 2040 No-Build scenario reflects the forecast traffic growth without any facility improvements beyond signal timing modifications. As a result, the peak direction of travel (westbound in the a.m., eastbound in the p.m.) would experience increased congestion with queues that would spill back through upstream intersections, though only the Starburst intersection performs at LOS 'E' during the a.m. peak period.
- Scenario 2e: the addition of the streetcar would further limit capacity for vehicles in the project corridor. Improvements in signal timing to facilitate the streetcar movement would minimize the delay on eastbound and westbound movements at the expenses of side street traffic. The intersection of H Street/13th Street would operate at LOS 'E' during the p.m. peak period.

Comments and Conclusions

The key conclusions from the traffic analysis with regards to the streetcar and streetscape projects can be summarized as:

- Streetcar operations within the right-of-way have some effect on overall traffic operations in the project area, but do not appear to create congestion that would exceed LOS 'D', except at the H Street/13th Street intersection in the corridor during the p.m. peak in Scenario 2e.
- Cross-section reductions as part of the streetscape project have a small, negative effect on intersection operations. However, the grid network in Washington, DC, according to the results from the MWCOG travel demand model, appears to be able to accommodate traffic on many different routes to reduce and spread congestion out at multiple locations.

- The scenarios with the streetcar appear to improve operations over the No-Build cases because the improvements made to the timing and phasing plans optimize conditions at specific locations.
- Streetcar operations at the four locations that require special requirements for the signal controllers are able to be accommodated without substantial impacts to vehicular movement in the corridor.
- Cycle lengths in the corridor can remain at 100 seconds.

In summary, the deployment of a streetcar project along the H/Benning street corridor in conjunction with the DDOT Great Streets (streetscape) project does not substantially degrade traffic conditions along the corridor.

Result Summary Tables

Table 2. 2006 Existing Conditions (1a) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	10.4	B	0.34	9.0	A	0.35
H Street/Kaiser Garage	3.8	A	0.31	3.9	A	0.31
H Street/3rd Street	21.0	C	0.48	12.5	B	0.41
H Street/4th Street	11.9	B	0.42	10.1	B	0.44
H Street/6th Street	7.9	A	0.47	14.1	B	0.50
H Street/7th Street	3.2	A	0.36	3.9	A	0.35
H Street/8th Street	23.4	C	0.45	12.5	B	0.45
H Street/9th Street	5.1	A	0.35	4.6	A	0.31
H Street/10th Street	16.5	B	0.39	7.4	A	0.34
H Street/11th Street	12.5	B	0.35	11.3	B	0.40
H Street/12th Street	4.5	A	0.33	8.6	A	0.29
H Street/13th Street	8.2	A	0.41	12.0	B	0.42
H Street/14th Street	14.7	B	0.39	13.3	B	0.48
Starburst	19.2	B	0.65	26.1	C	0.88
Maryland Avenue/Bladensburg Road	36.8	D	0.26	10.5	B	0.32
Benning Road/16th Street	4.1	A	0.46	8.5	A	0.33
Benning Road/17th Street	17.5	B	0.65	14.3	B	0.50
Benning Road/19th Street	11.0	B	0.53	8.1	A	0.43
Benning Road/21st Street	3.9	A	0.41	7.2	A	0.40
Benning Road/24th Street	2.1	A	0.37	1.9	A	0.30
Benning Road/26th Street	5.4	A	0.42	4.9	A	0.39
Benning Road / Oklahoma Avenue	5.8	A	0.54	4.2	A	0.39
H Street/Union Street Garage	10.4	B	0.34	9.0	A	0.35

Table 3. 2040 No-Build (1b) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	11.9	B	0.42	11.7	B	0.43
H Street/Kaiser Garage	3.8	A	0.39	3.9	A	0.37
H Street/3rd Street	24.3	C	0.64	16.3	B	0.53
H Street/4th Street	13.6	B	0.55	12.7	B	0.54
H Street/6th Street	16.7	B	0.67	15.5	B	0.61
H Street/7th Street	3.2	A	0.36	3.9	A	0.35
H Street/8th Street	25.3	C	0.59	26.6	C	0.67
H Street/9th Street	8.0	A	0.42	4.0	A	0.36
H Street/10th Street	19.5	B	0.48	7.4	A	0.41
H Street/11th Street	16.6	B	0.60	18.9	B	0.64
H Street/12th Street	4.5	A	0.48	12.4	B	0.41
H Street/13th Street	10.9	B	0.60	13.5	B	0.63
H Street/14th Street	20.2	C	0.39	13.9	B	0.48
Starburst	39.4	D	> 1.0	47.8	D	> 1.0
Maryland Avenue/Bladensburg Road	19.7	B	0.39	9.9	A	0.39
Benning Road/16th Street	6.1	A	0.61	13.6	B	0.55
Benning Road/17th Street	46.0	D	0.87	17.0	B	0.69
Benning Road/19th Street	22.7	C	0.76	7.0	A	0.52
Benning Road/21st Street	4.1	A	0.49	8.8	A	0.55
Benning Road/24th Street	2.2	A	0.43	2.0	A	0.36
Benning Road/26th Street	5.9	A	0.50	6.3	A	0.49
Benning Road / Oklahoma Avenue	6.6	A	0.63	3.5	A	0.45
H Street/Union Street Garage	11.9	B	0.42	11.7	B	0.43

Table 4. 2040 Streetscape (1c) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	9.1	A	0.32	9.2	A	0.30
H Street/Kaiser Garage (unsignalized)	11.5 (NB)	B (NB)	0.03 (NB)	10.8 (NB)	B (NB)	0.05 (NB)
H Street/3rd Street	24.0	C	0.66	18.9	B	0.51
H Street/4th Street	18.6	B	0.64	17.7	B	0.51
H Street/6th Street	12.1	B	0.70	59.0	E	0.67
H Street/7th Street	3.6	A	0.52	5.0	A	0.50
H Street/8th Street	24.9	C	0.78	19.0	B	0.67
H Street/9th Street	4.4	A	0.59	5.9	A	0.48
H Street/10th Street	4.8	A	0.65	9.4	A	0.54
H Street/11th Street	17.8	B	0.77	13.1	B	0.71
H Street/12th Street	5.4	A	0.60	8.3	A	0.53
H Street/13th Street	9.3	B	0.63	21.0	C	0.81
H Street/14th Street	27.4	C	0.56	18.9	B	0.65
Starburst	41.1	D	> 1.0	54.2	D	> 1.0
Maryland Avenue/Bladensburg Road	21.8	C	0.36	14.6	B	0.41
Benning Road/16th Street	5.0	A	0.52	14.8	B	0.53
Benning Road/17th Street	61.5	E	0.92	22.6	C	0.76
Benning Road/19th Street	22.5	C	0.85	8.4	A	0.47
Benning Road/21st Street	6.4	A	0.56	11.6	B	0.50
Benning Road/24th Street	2.9	A	0.56	2.2	A	0.41
Benning Road/26th Street	7.7	A	0.69	7.4	A	0.53
Benning Road / Oklahoma Avenue	2.8	A	0.58	9.3	A	0.61
H Street/Union Street Garage	9.1	A	0.32	9.2	A	0.30

Table 5. 2012 Existing Conditions (2a) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	5.1	A	0.36	9.7	A	0.38
H Street/Kaiser Garage	5.1	A	0.35	6.5	A	0.34
H Street/3rd Street	11.5	B	0.69	15.2	B	0.55
H Street/4th Street	7.9	A	0.58	12.8	B	0.60
H Street/6th Street	13	B	0.64	15.8	B	0.69
H Street/7th Street	3.8	A	0.52	7.3	A	0.50
H Street/8th Street	15.7	B	0.62	16.7	B	0.61
H Street/9th Street	6.3	A	0.52	5.7	A	0.46
H Street/10th Street	5.7	A	0.57	11.2	B	0.49
H Street/11th Street	12.3	B	0.51	7.9	A	0.55
H Street/12th Street	6.2	A	0.49	3.8	A	0.43
H Street/13th Street	9.5	A	0.57	14.4	B	0.58
H Street/14th Street	14.9	B	0.56	25.6	C	0.65
Starburst	24.4	C	0.67	26.3	C	0.95
Maryland Avenue/Bladensburg Road	30.3	C	0.27	10.8	B	0.36
Benning Road/16th Street	10.3	B	0.54	13	B	0.44
Benning Road/17th Street	15.1	B	0.80	18.1	B	0.64
Benning Road/19th Street	12.2	B	0.75	8.4	A	0.52
Benning Road/21st Street	6.4	A	0.55	8.3	A	0.47
Benning Road/24th Street	2.4	A	0.54	2.1	A	0.41
Benning Road/26th Street	3.8	A	0.60	4.5	A	0.48
Benning Road / Oklahoma Avenue	5.6	A	0.57	2.8	A	0.55
H Street/Union Street Garage	5.1	A	0.36	9.7	A	0.38

Table 6. 2013 Opening Year (2b) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	4.9	A	0.36	10.2	B	0.39
H Street/Kaiser Garage	5.1	A	0.35	6.6	A	0.34
H Street/3rd Street	11.6	B	0.69	14.2	B	0.55
H Street/4th Street	8.3	A	0.59	12.8	B	0.60
H Street/6th Street	13.2	B	0.65	16.1	B	0.69
H Street/7th Street	3.7	A	0.53	7.2	A	0.50
H Street/8th Street	15.9	B	0.63	16.8	B	0.61
H Street/9th Street	6.6	A	0.52	5.6	A	0.46
H Street/10th Street	5.6	A	0.57	11.2	B	0.50
H Street/11th Street	12.6	B	0.51	8	B	0.56
H Street/12th Street	6.3	A	0.49	3.8	A	0.43
H Street/13th Street	9.7	A	0.57	14.5	B	0.59
H Street/14th Street	15.2	B	0.57	26.1	C	0.65
Starburst	24.9	C	0.68	20.8	C	0.96
Maryland Avenue/Bladensburg Road	30.2	C	0.28	10.9	B	0.37
Benning Road/16th Street	10.9	B	0.55	13.6	B	0.44
Benning Road/17th Street	15.1	B	0.81	18.2	B	0.65
Benning Road/19th Street	12.4	B	0.76	8.4	A	0.52
Benning Road/21st Street	6.4	A	0.56	8.2	A	0.47
Benning Road/24th Street	2.4	A	0.55	2.1	A	0.42
Benning Road/26th Street	3.8	A	0.60	4.5	A	0.48
Benning Road / Oklahoma Avenue	5.7	A	0.58	2.8	A	0.56

Table 7. 2013 Opening Year (2c) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	6.7	A	0.36	8.9	A	0.39
H Street/Kaiser Garage (unsignalized)	10.7 (NB)	B (NB)	0.05 (NB)	11.5 (NB)	B (NB)	0.03 (NB)
H Street/3rd Street	20.8	C	0.81	25.4	C	0.67
H Street/4th Street	22.6	C	0.59	14.8	B	0.61
H Street/6th Street	16	B	0.65	16.7	B	0.69
H Street/7th Street	5.6	A	0.53	7.6	A	0.50
H Street/8th Street	15	B	0.63	19.2	B	0.61
H Street/9th Street	5.2	A	0.52	5.3	A	0.46
H Street/10th Street	5.9	A	0.57	8.7	A	0.50
H Street/11th Street	11.8	B	0.51	8.4	A	0.56
H Street/12th Street	7.2	A	0.49	5.6	A	0.43
H Street/13th Street	12.9	B	0.57	15.9	B	0.59
H Street/14th Street	14	B	0.57	45	D	0.65
Starburst	27.3	C	0.74	15.9	B	> 1.0
Maryland Avenue/Bladensburg Road	17.1	B	0.28	9.2	A	0.37
Benning Road/16th Street	11.5	B	0.55	8.3	A	0.44
Benning Road/17th Street	16.3	B	0.81	17	B	0.65
Benning Road/19th Street	14.7	B	0.76	9	A	0.52
Benning Road/21st Street	6.4	A	0.56	8.3	A	0.47
Benning Road/24th Street	2.5	A	0.55	2.3	A	0.42
Benning Road/26th Street	4.3	A	0.60	5	A	0.48
Benning Road / Oklahoma Avenue	4.4	A	0.58	3.1	A	0.56

Table 8. 2040 Future Year (2d) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	5.3	A	0.40	9.9	A	0.43
H Street/Kaiser Garage	5.8	A	0.38	3.6	A	0.38
H Street/3rd Street	20.4	C	0.79	19.7	B	0.66
H Street/4th Street	25.8	C	0.71	16.6	B	0.68
H Street/6th Street	30.3	C	0.85	15.3	B	0.72
H Street/7th Street	3.5	A	0.60	7.5	A	0.50
H Street/8th Street	14.9	B	0.78	23.1	C	0.74
H Street/9th Street	7.7	A	0.62	5.8	A	0.50
H Street/10th Street	7.2	A	0.67	10.2	B	0.55
H Street/11th Street	12.2	B	0.80	28.6	C	0.72
H Street/12th Street	6	A	0.63	15.1	B	0.55
H Street/13th Street	9.2	A	0.66	33.6	C	0.84
H Street/14th Street	32.5	C	0.83	37.6	D	0.94
Starburst	66.9	E	> 1.0	45.8	D	> 1.0
Maryland Avenue/Bladensburg Road	31.6	C	0.35	12.3	B	0.39
Benning Road/16th Street	18.3	B	0.62	8.6	A	0.59
Benning Road/17th Street	30.5	C	0.94	21.9	C	0.80
Benning Road/19th Street	44.6	D	0.94	5.3	A	0.53
Benning Road/21st Street	27.5	C	0.55	10	A	0.60
Benning Road/24th Street	18.7	B	0.51	3.1	A	0.46
Benning Road/26th Street	9.1	A	0.65	5.7	A	0.56
Benning Road / Oklahoma Avenue	17.1	B	0.61	3.2	A	0.63

Table 9. 2040 Future Year (2e) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	7.0	A	0.43	33.7	C	0.43
H Street/Kaiser Garage (unsignalized)	11.0 (NB)	B (NB)	0.02 (NB)	10.5 (NB)	B (NB)	0.04 (NB)
H Street/3rd Street	22.4	C	0.87	51.5	D	0.73
H Street/4th Street	21.9	C	0.74	39.1	D	0.68
H Street/6th Street	30.6	C	0.87	39.2	D	0.73
H Street/7th Street	11.1	B	0.63	40.0	D	0.50
H Street/8th Street	23.3	C	0.80	52.0	D	0.75
H Street/9th Street	12.1	B	0.64	27.5	C	0.51
H Street/10th Street	16.2	B	0.69	35.6	D	0.57
H Street/11th Street	29.7	C	0.82	40.9	D	0.74
H Street/12th Street	26.5	C	0.65	29.2	C	0.56
H Street/13th Street	61.0	D	0.68	55.3	E	0.85
H Street/14th Street	27.8	C	0.84	50.3	D	0.94
Starburst	46.8	D	> 1.0	23.5	C	> 1.0
Maryland Avenue/Bladensburg Road	12.2	B	0.35	8.5	A	0.37
Benning Road/16th Street	29.7	C	0.62	11.3	B	0.59
Benning Road/17th Street	29.7	C	0.94	20.0	B	0.80
Benning Road/19th Street	47.5	D	0.92	5.4	A	0.52
Benning Road/21st Street	26.5	C	0.59	10.6	B	0.58
Benning Road/24th Street	18.3	B	0.53	2.5	A	0.46
Benning Road/26th Street	9.4	A	0.66	6.0	A	0.56
Benning Road / Oklahoma Avenue	14.6	B	0.62	3.0	A	0.62

Section 2
Background and Project Description

BACKGROUND AND PROJECT DESCRIPTION

The District Department of Transportation (DDOT) has initiated a program to develop and plan a 37-mile long streetcar system in the District of Columbia. The purpose of the streetcar system is to provide high-capacity and high-quality transit service to District residents and visitors and invest in infrastructure that will catalyze economic development. The first streetcar project to be underway is the construction of an approximately 2.3 mile segment on the H/Benning Streetcar corridor. Streetcar tracks were partially installed during the reconstruction of the H/Benning Great Streets reconstruction effort in 2009 and 2010. As part of the HDR led DC Streetcar Program Management team, Kittelson and Associates, Inc. (KAI) has completed a traffic analysis for the H/Benning Streetcar corridor.

The geographic limits of the H/Benning streetscape and streetcar projects are H Street NE/1st Street NE at the western end, and Benning Road/Oklahoma Avenue NE at the eastern end. The length of the study corridor is approximately 2.3 miles long. The western end of the streetcar project begins near Union Station on the Hopscotch Bridge at the entrance to the Union Station parking structure. The streetcar line continues east along H Street for approximately 1.3 miles and turns southeast onto Benning Road at the intersection of H Street / Benning Road / Maryland Avenue / Florida Avenue / Bladensburg Road (this intersection is referred to as the “Starburst”). The streetcar line then runs on Benning Road for approximately one mile until it reaches its eastern turnaround point just east of Oklahoma Avenue NE. There are 28 intersections in the study corridor; five of which are unsignalized.

The traffic analysis was completed in the following steps: data collection, Synchro analysis, VISSIM analysis, signal system optimization and operational testing using VISSIM, discussion of the results, and project conclusions.

Section 3
Data Collection

DATA COLLECTION

The data collection for the project included the following: a site visit, turning movement counts collected in July 2012, archived traffic data from DDOT, signal timing plans, travel demand model data from MWCOG, and aerial photography from Google Maps and Google Earth.

Site Visit

A site visit of the entire corridor was conducted on July 17, 2012 during the afternoon peak period. The corridor was observed on foot, by car, and by bus. Observations included: lane assignments, intersection geometry, turning movement restrictions, signal operations, the location of streetcar stops, and other components of the built environment.

Turning Movement Counts

Turning movement counts were collected Tuesday-Thursday, July 17-19th at 22 signalized intersections in the project corridor. Tube counts were collected during these days and used to determine the a.m. and p.m. peak hours of the system. For the study corridor the peak hours were determined to be:

- AM Peak Hour: 7:00 to 8:00 a.m.
- PM Peak Hour: 4:00 to 5:00 p.m.

The turning movement counts included pedestrian, bicycle, and heavy vehicle volumes. Turning movement counts can be found in Appendix 1.

Archived Traffic Data

Traffic volume maps from the District of Columbia's Department of Transportation (DDOT) website were accessed in order to determine an annual rate traffic growth in the study corridor. Previously collected traffic data from May, 2011 from the Starburst intersection and the intersection of Maryland Avenue and 14th Street were used to develop a seasonal adjustment factor.

Signal Timing

Signal timing plans were requested and supplied from the DC Department of Public Works, Bureau of Traffic Services. The information from the timing plans was entered for each intersection in the Synchro traffic model. From Synchro, signal phasing and timing information was exported to create signal timing files for use in the VISSIM simulation model.

Travel Demand Models

HDR developed the future year 2040 travel demand models using the Metropolitan Washington Council of Government's (MWCOG) Version 2.3 Travel Model. MWCOG's travel demand model uses the Cube software platform. In addition to the existing year 2012 model, four specific year 2040 models were developed based on the requirements of the analysis set forth by DDOT. Output data from the model was used to develop future year 2040 traffic volumes.

Section 4
Alternatives

ALTERNATIVES

The alternative scenarios to be constructed and analyzed were developed and agreed upon during a kick-off meeting with the project team. Meeting notes from the kick-off meeting are in Appendix 2. The alternatives were developed and analyzed in order to determine if any impacts on traffic operations would occur, and what their magnitude might be.

The H Street/Benning Road study has undergone two improvement projects over the past six years: a DDOT Great Streets (streetscape) project and the construction of a new streetcar line. Therefore, it was necessary to analyze the potential impacts of both projects in the H Street/Benning Road study corridor. The recently completed streetscape project reduced the cross-sectional width of H Street from six lanes to four and Benning Road from eight lanes to six. In addition, this project constructed a median on Benning Road and made other improvements typical of street renovation work. The second project was the initial installation and upcoming operation of the District of Columbia's modern era streetcar system. Figure 1 on the following page shows the typical cross-sections on H Street and Benning Road before and after the streetscape and streetcar projects.

While both of these projects might have potential traffic operational and other impacts that are independent from one another, there are some areas of overlap due to the fact that they were constructed at approximately the same time. The analysis takes these facts into account.

To determine if there are any potential streetscape transportation impact(s), the following three scenarios shown in Table 10 were analyzed and described below:

Table 10. Streetscape Scenarios

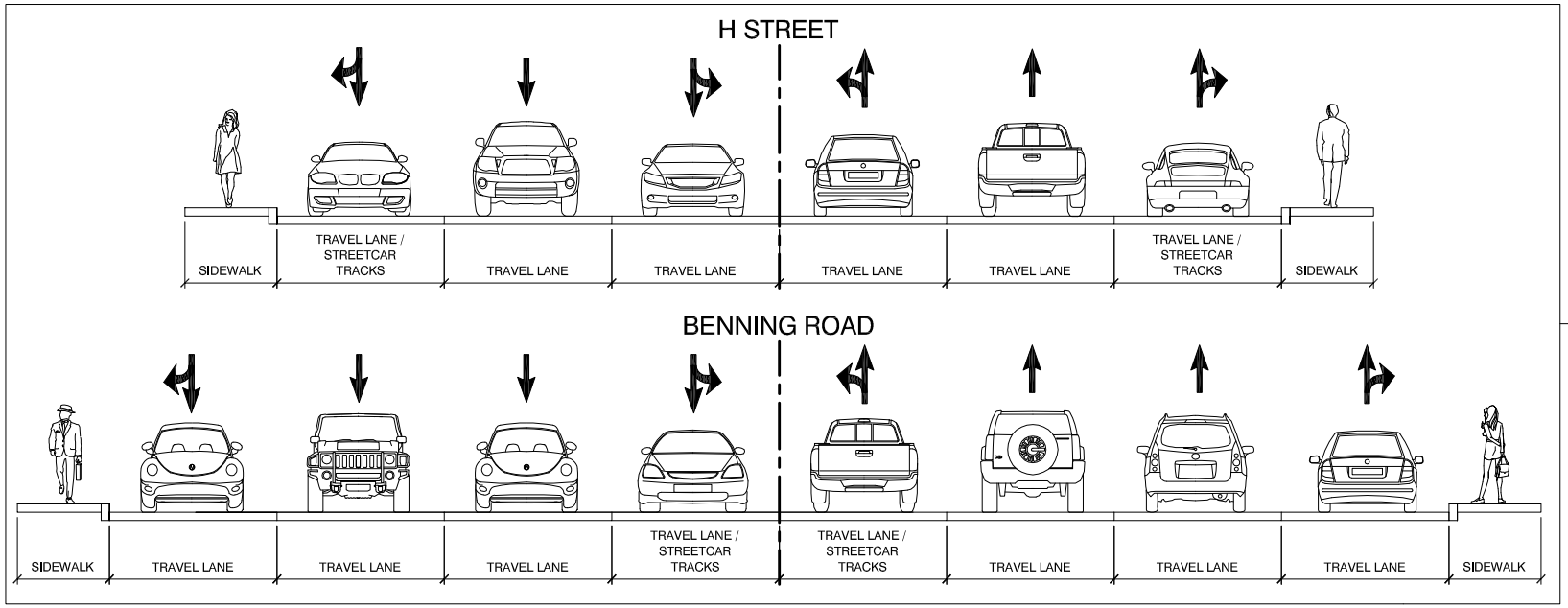
Scenario Number	Scenario Name	Analysis Year	Time Periods	Cross-section	Include Streetcar?	Model for Analysis
1a	Existing Conditions	2006	AM/PM	6/8 lane	No	Synchro
1b	Design Year No-Build	2040	AM/PM	6/8 lane	Yes	Synchro
1c	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro

Scenario 1a: 2006 Existing Conditions

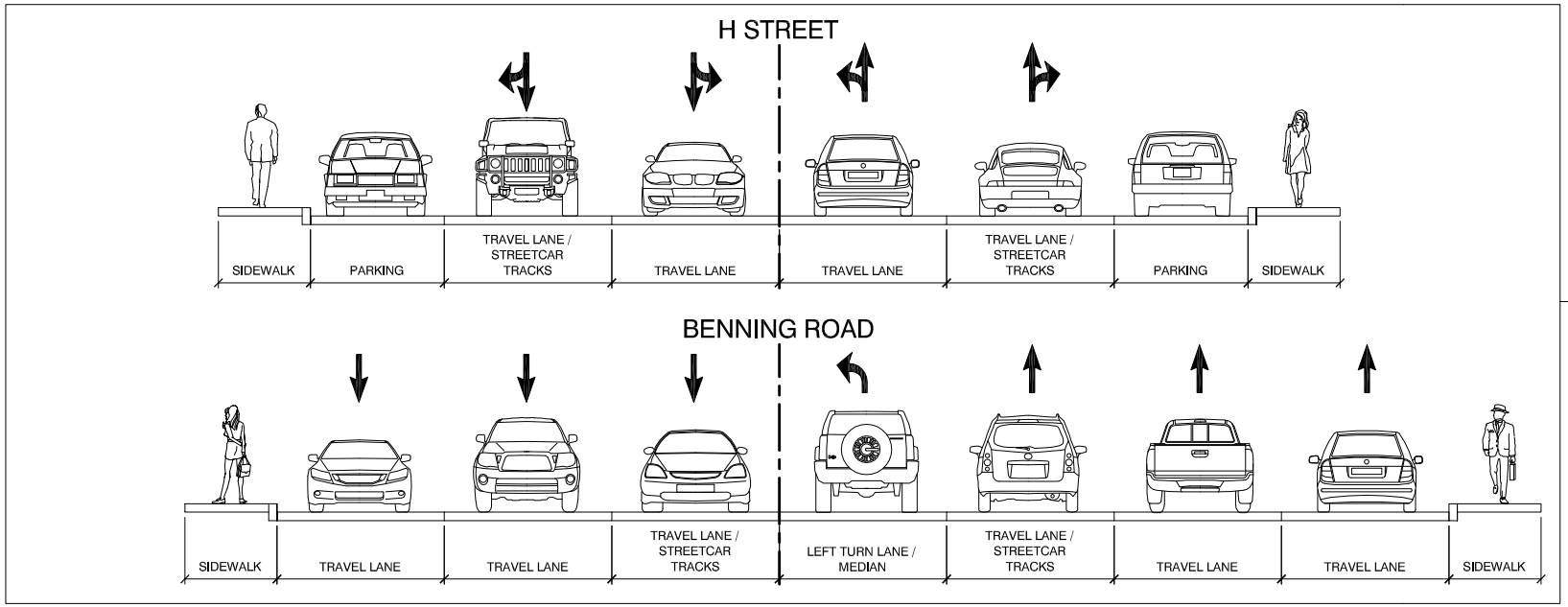
Scenario 1a describes the existing conditions of the H Street/Benning Road corridor as it existed in the year 2006, before any of the streetscape work had begun. The general cross-section of the corridor is either six- or eight-lanes.

Scenario 1b: 2040 No-Build

Scenario 1b describes the future conditions of the streetscape project if the streetscape project was not constructed and the cross-sections remained the same as in the year 2006. In this scenario, the streetcar would be a separate, but planned improvement in the project corridor; therefore it is included in the No-Build analysis.



SCENARIO 1A: NO STREETCAR
SCENARIO 1B: WITH STREETCAR



SCENARIOS 1A/2C/2E: WITH STREETCAR
SCENARIOS 2A/2B/2D: NO STREETCAR

NOTE: THROUGH-LEFT AND THROUGH-RIGHT LANES DEPEND ON ONE-WAY STREET CONFIGURATION.

H STREET / BENNING ROAD
TYPICAL CROSS-SECTIONS
WASHINGTON, DC

FIGURE 1

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

Scenario 1c: 2040 Streetscape

Scenario 1c represents a typical Build condition, where both the specific planned improvements as well as any No-Build improvements are included as part of the analysis. In this scenario, the streetcar is included as a No-Build improvement, and the reduction in street width to a four- and six-lane cross-sectional is reflected in this scenario.

To determine if there are any potential streetcar transportation impact(s), the following five scenarios shown in Table 11 were analyzed and described below:

Table 11. Streetcar Scenarios

Scenario Number	Scenario Name	Analysis Year	Time Periods	Cross-section	Include Streetcar?	Models for Analysis
2a	Existing Conditions	2012	AM/PM	4/6 lane	No	Synchro, VISSIM
2b	Opening Year No-Build	2013	AM/PM	4/6 lane	No	Synchro, VISSIM
2c	Opening Year Build	2013	AM/PM	4/6 lane	Yes	Synchro, VISSIM
2d	Design Year No-Build	2040	AM/PM	4/6 lane	No	Synchro, VISSIM
2e	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro, VISSIM

Scenario 2a: 2012 Existing Conditions

This scenario represents the baseline conditions along the study corridor. It reflects traffic conditions on the corridor in the year 2012, with no streetcar in operation, existing signal timing, and existing traffic volumes.

Scenario 2b: 2013 No-Build

This alternative was based on scenario 2a, with the only difference being the small increase in traffic volumes expected in the year 2013. No streetcar was included in this scenario and no changes made to signal timing were made.

Scenario 2c: 2013 Streetcar

This alternative is similar to scenario 2b, except that the streetcar has been added. For this scenario, bus service in the project area is assumed to continue serving the corridor as per their existing routes.

To accommodate the streetcar, several alterations were made the year 2013 No-Build model:

Model-wide

Streetcars were added to the model, running on 10-minute headways in each direction. The streetcar was modeled running in the curb lane and serving curb stations to the west of the “Starburst” intersection. East of the “Starburst”, the streetcar was modeled running in the inside traffic lane and serving median stops. For this scenario, changes were made to the signal timing along the corridor, including an extensive review of the signal timing at the ‘Starburst’ intersection. The signal timing was

changed based on the time of day and was consistent with the recommended signal timing plans developed in the Synchro analysis.

Western Streetcar Terminus

At H Street/3rd Street, the streetcar tracks were modeled to transition for right-lane-running to the west of 3rd Street to median-running to the east of 3rd Street to access the new Union Station stop. In both directions, waiting streetcars were modeled to call for a streetcar-only phase at the 3rd Street signal where these vehicles can make this transition. Westbound vehicles stop and wait in the travel lane at the near-side curb station at 3rd Street. Upon traversing the intersection, these vehicles wait for the Union Station stop to clear before proceeding to access the station. Eastbound vehicles wait for the streetcar-only phase in the median tracks west of 3rd Street. The Union Station stop would require the easternmost garage access to become an unsignalized right-in/right-out intersection and would eliminate the eastbound right-turn lane at H Street/3rd. The lane transition movements at H Street/3rd Street are shown below in Figure 2.

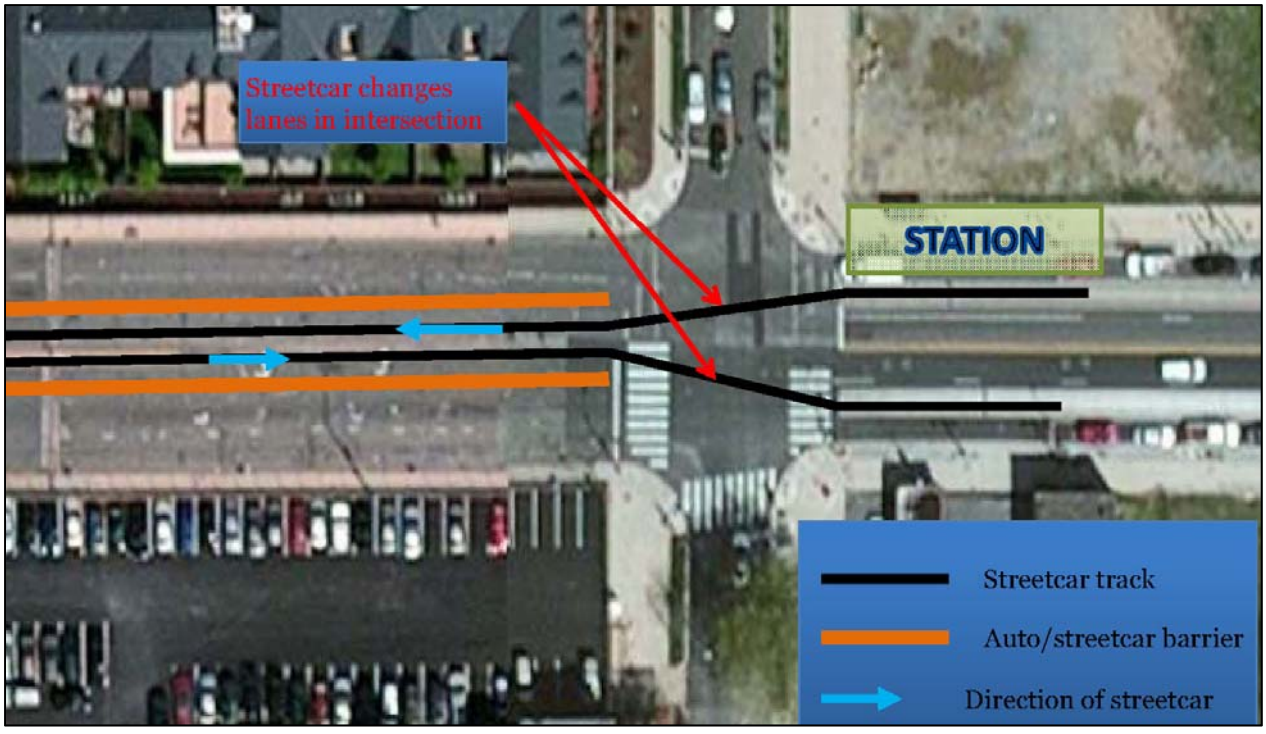


Figure 2. H Street/3rd Street Streetcar Lane Transition

"Starburst" Intersection

At this location, the streetcar transitions from curb-running tracks to the west of the Starburst on H Street, to median-running to the east of the Starburst on Benning Road. Westbound streetcars were modeled using an advance queue jump signal phase to transition from the median Benning Road lane to the rightmost through H Street lane; this phase would also allow a concurrent eastbound movement of autos and streetcars. In the eastbound direction, the streetcar does not change lanes due to a lane reconfiguration. The left lane of H Street would become a left-turn lane to Bladensburg Road, and a second eastbound lane through the intersection could be created by removing on-street parking from the curb lane between 14th Street and Starburst. The lane transitions are shown below in Figure 3.

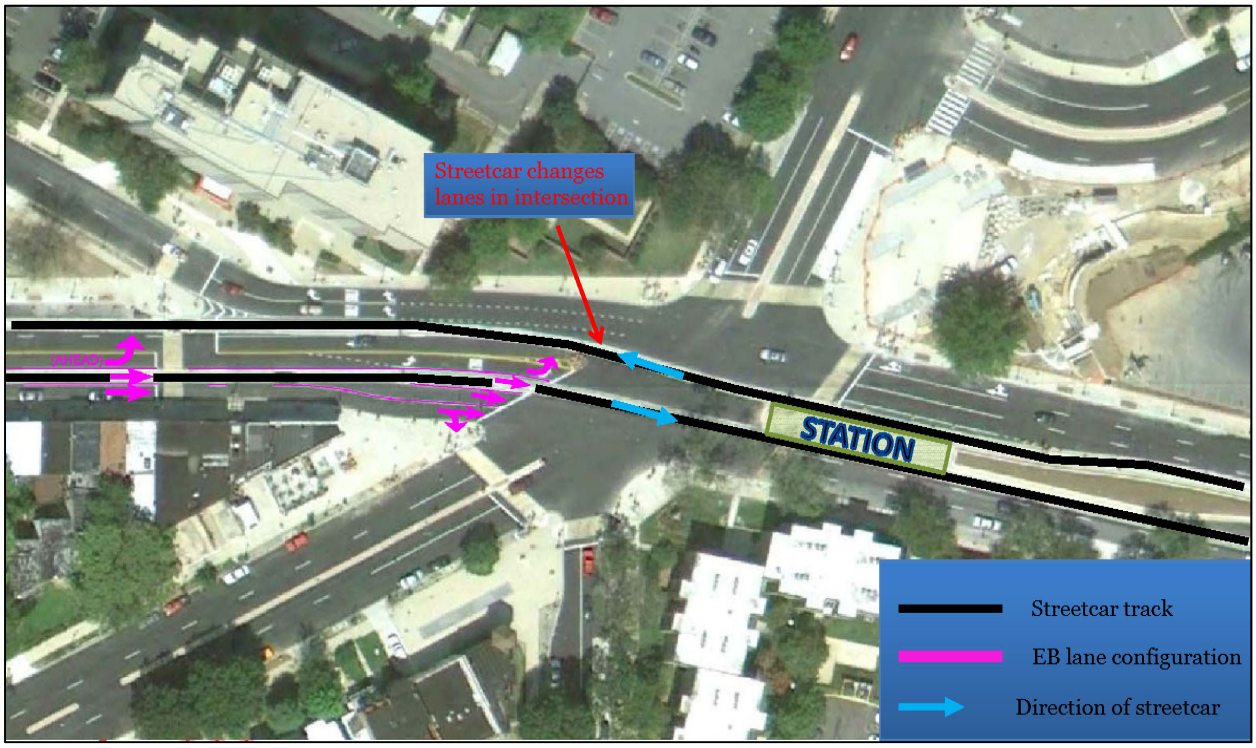


Figure 3. Starburst Streetcar Lane Transitions

Eastern Streetcar Terminus

The streetcars were modeled to reverse direction in the median east of Oklahoma Avenue NE. Eastbound streetcars would transition from the eastbound through vehicle lane to a median pocket track and reverse direction. The streetcar would then remain in the median and trigger a new traffic signal located on Benning Road, east of Oklahoma Avenue, which stops westbound Benning Road traffic so the streetcar may safety pull into the leftmost through vehicle lane and begin running the westbound route. This turnaround maneuver is shown in Figure 4.

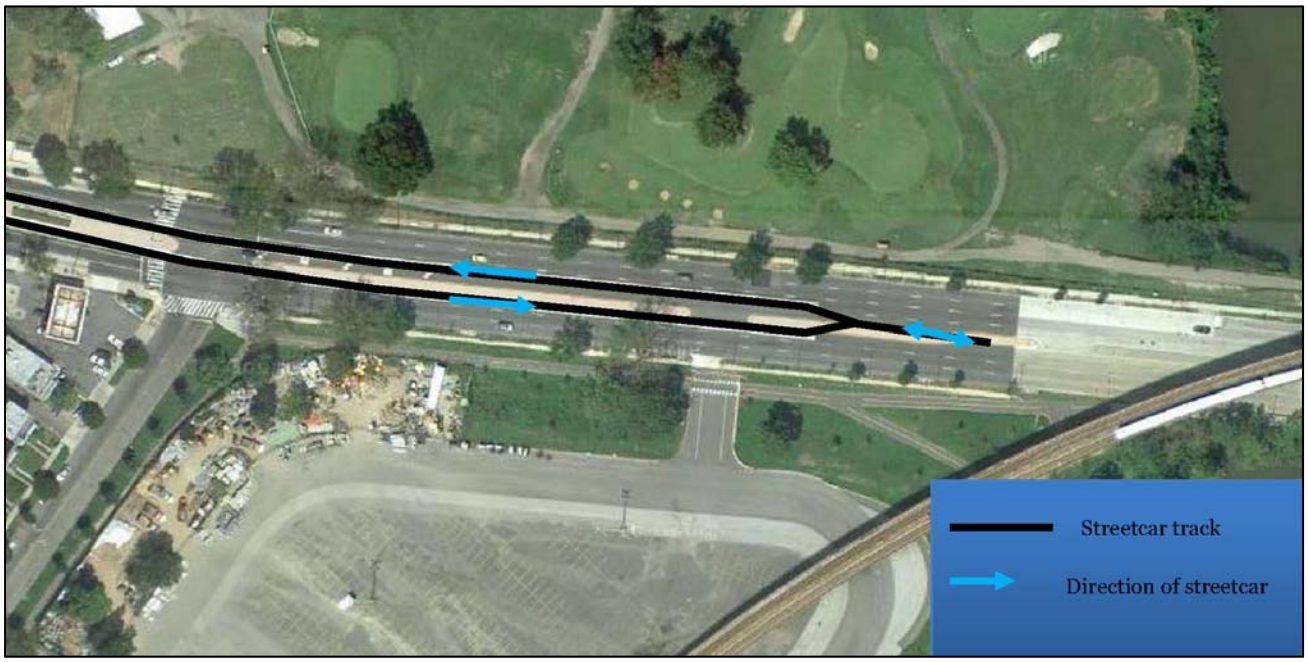


Figure 4. Eastern Streetcar Terminus

Maintenance Yard

The maintenance yard for the streetcar is planned to be located on the north side of Benning Road near 24th Street. Streetcars would need to cross westbound Benning Road and enter mixed-flow lanes on Benning Road in both directions when traveling in and out of the yard. These movements would require special traffic signal phases. However, as travel in and out of the yard is only expected to occur outside of peak analysis hours, this operation was not included in the VISSIM models.

Scenario 2d: 2040 No-Build

This alternate represents future conditions in the corridor if the streetcar system was not constructed and in operation. Traffic volumes were developed as previously described, and represent potential year 2040 conditions in the corridor.

Scenario 2e: 2040 Streetcar

This alternative incorporates traffic volumes developed from the 2040 streetcar travel demand model as well streetcar operations similar to the 2013 streetcar scenario. The signal timings were modified to accommodate both the streetcar and the increase in vehicle traffic.

Measures of Effectiveness

As shown above in Table 10 and Table 11, the scenarios were modeled with a combination of Synchro and VISSIM software packages. Section 4: Methodology, details how each software package was used for the analysis. For each scenario, the volume-to-capacity (v/c) ratio, per-vehicle delay, level-of-service (LOS), 95th percentile queuing results were produced for the signalized intersections in the study area. For the streetcar scenarios, corridor-wide operations were further analyzed by examining the travel time needed to traverse H Street, Benning Road, and the full length of the corridor.

This analysis was conducted in conjunction with ongoing work to develop a concept of operations for the streetcar. The requirements needed to operate the streetcar in the H Street/Benning Road corridor are reflected in the results, and the analysis itself provided an opportunity to test multiple methods of potential signal operation schemas.

Section 5
Study Methodology

STUDY METHODOLOGY

The traffic analysis for the H Street/Benning Road corridor is described in this section. The analysis processed as follows:

- Data collection, described in Section 2
- Peak hour selection, described in Section 2
- Streetscape and streetcar modeling scenario development, discussed in Section 3
- Create seasonal and yearly growth factors
- Seasonally adjust, balance and finalize year 2012 traffic volumes
- Forecast year 2006 and year 2013 volumes based on yearly growth factor
- Complete the National Cooperative Highway Research Program (NCHRP) 255 future volumes forecasting process
- Synchro model development for streetscape and streetcar analyses
    - AM and p.m. models for all scenarios
    - Lane geometry
    - Signal timing information
    - Input pedestrian, vehicle, and truck volumes
    - Enter peak hour factors and other data needed for Highway Capacity Manual (HCM) analysis
    - Error check models
- Build VISSIM models based on Synchro models for all streetcar scenarios
- Use Synchro to develop and test signal timing parameters and coordination schemas for intersection and corridors
- Input new timings (including those for streetcar phasing) into VISSIM
- Produce intersection v/c ratio, LOS, per-vehicle delay, and 95th percentile queuing analyses as well as corridor travel time results

Seasonal and Yearly Factors

Traffic data for the analysis was collected in July. Owing to the fact that traffic in the District of Columbia is lower during the summer months, DDOT requires that either traffic data be collected during the non-summer months, or be adjusted to account for the lower summer volumes. Therefore, an adjustment was made to the July counts so that they would more accurately reflect a typical non-

summer, non-holiday mid-weekday. This was done by comparing intersection volumes collected during May with the traffic collected in July. The intersection to intersection comparison showed that July counts needed to be adjusted upward by approximately 3.5 percent to reflect a typical non-summer, non-holiday mid-weekday.

A yearly growth factor was needed to forecast year 2012 volumes to year 2006 volumes, and to forecast year 2013 volumes. This factor was determined by analyzing several intersections within the study corridor for the years 2006-2009. These were the years that historical traffic data was available from DDOT. The analysis showed that traffic increased by roughly 0.78 percent per annum. Accounting for six of growth between the year 2006 and the year 2012, the 0.78 percent annual factor was multiplied by six, then subtracted from 1.00 (or 100 percent of 2012 traffic volumes), to create a six-year adjustment factor of 0.9532. That is, year 2006 traffic volumes are approximately 95 percent of year 2012 volumes. Similarly, year 2012 traffic volumes were increased by 0.78 percent to create year 2013 volumes.

2006, 2012, and 2013 Volume Development

After the seasonal factor was applied to the raw year 2012 peak hour traffic counts, the volumes were rounded and balanced between intersections to remove any minor inconsistencies inherent in the data collection. This step merely added or subtracted volumes between adjacent intersections to prevent vehicles from "appearing" or "disappearing" between locations without driveways, side streets, or to other vehicle sinks and sources. In most cases, it is preferable to increase volumes during the balancing process as to err on the side of higher number of vehicles, as this would account for potentially worse intersection operations. Once the year 2012 volumes were error-checked and finalized, they were forecast to the year 2006 and forecast to the year 2013. The year 2006 and year 2013 volumes then were rounding, balanced, went through the QA/QC process and were finalized.

Travel Demand Modeling

Travel demand modeling data was produced by HDR using the most current version (Version 2.3) of MWCOG's model, which runs the Cube software. Using the MWCOG's existing conditions model as the base, HDR produced four additional year 2040 models containing specific network changes needed for the future scenarios. These edits included: adding the streetcar as a mode choice, altering the roadway cross-sections, and updating link capacities. Table 12 shows the five modeling scenarios.

Table 12. Modeling Scenarios

Model Number	Analysis Year	Cross-section	Include Streetcar?
1	2012	4/6 lane	No
2	2012	6/8 lane	No
3	2040	4/6 lane	Yes
4	2040	4/6 lane	No
5	2040	6/8 lane	Yes

Modeling output used for all three time periods for each of the five scenarios included link volumes, turning movement volumes, and link capacities. This data was then used to develop turning movement volumes using the NCHRP 255 procedures.

Year 2040 Volume Development

Volumes for the year 2040 were developed using the NCHRP 255 process. The NCHRP 255 process uses three sets of data and to develop future year traffic volumes. The three data sets needed are: existing year turning movements, existing year travel demand link volume data, and future year travel demand link volume data. The method creates three potential future year volumes, and relies on the judgment of the traffic engineer or transportation planner to select the best outcome. The three methods of future volume development are the ratio method, the difference method, and the average between the ratio and difference method.

The first method is the ratio method, which compares future model volumes to existing volumes to determine a network link growth rate, then applies that growth rate to the existing (known) traffic volumes to create a future volume. The difference method determines the raw difference between the base and future travel demand link volumes, and adds this difference to the existing traffic volumes. This third method uses the average of the ratio and difference methods to create a third value. Ideally, the average of the two methods is the preferable choice because it incorporates the strength of the ratio and difference methods. However, in cases where either the ratio or difference method produces a result that is not useable, the selection of either the ratio or difference method is advisable. Experience and engineering judgment are the key principles that underlie the selection of the most appropriate of the three methods to use.

Volumes for each of the four future scenarios used the combinations of existing and future models as shown in Table 13.

Table 13. NCHRP 255 Volume Development Process

Scenario	Analysis Year	Base Model	Future Model
1b	2040	2	5
1c	2040	2	3
2d	2040	1	4
2e	2040	1	3

For both the year 2012 and year 2040 models, the link volumes produced as outputs are for multiple hours, rather than a single peak hour. However, both the Synchro and VISSIM models developed require the use of a single peak hour for each of the a.m. and p.m. peak periods. To convert the multiple hours of travel demand model data into a single peak hour, a factor was developed from tube count data. This factor is simply the ratio of the peak hour volume to the peak period volume that corresponds to the multi-hour period for each of the two travel demand models (a.m. and p.m.). The peaking factor was applied to each of the raw travel demand models before they were processed using

the NCHRP 255 worksheets. Once the final volumes for each of the year 2040 models were completed, they were rounded and balanced for use in the Synchro and VISSIM models.

Synchro Model Development

Synchro traffic models were developed for each of the eight scenarios, for both the a.m. and p.m. peak hours. Using a combination of aerial photography, including some historical aerials from Google Earth, as well as the site visit, the lane geometry was set up in the Synchro model. The geometry included the number of lanes for each approach to an intersection, lane assignments, posted traffic speeds, and turn lane storage lengths

Traffic data was entered from the volume development process described earlier. In addition to the number of vehicles by turning movement, this information included: pedestrians, bicycles, and heavy vehicles. Intersection peak hour factors were determined and entered into Synchro.

Signal timing information from DDOT timing plans was entered into the model. The majority of the intersections in the project area currently operate with interval-based timings. Synchro uses NEMA-phased based timings. Therefore, intersections with interval-based timings were first converted to phased-based timings; the signal timings parameters were then entered into Synchro.

The Synchro model was then error-checked. Once the review was finished, the model was used to develop the VISSIM models.

Streetcar Signal Timing

Once the streetcar is added to the H/Benning corridor, some intersections will require a dedicated traffic signal phase that is called when the streetcar is present. This is because streetcar movements such as lane changes or transition from center-running to side-running operation would place the streetcar in conflict with vehicles as it operates in a mixed flow environment. A list of these intersections and details of how they will operate are provided in Section 6 of this report.

From a Synchro standpoint, analysis of intersections with streetcar-only phases is challenging because the streetcar phase is not used in every cycle. When streetcars are not present, the split time associated with the streetcar phase is shifted from the coordinated phase serving H/Benning traffic and provides additional green time for these movements. To assess the performance of intersections with streetcar phases over an entire hour, two Synchro models were created for each scenario. One model included the streetcar phase. The second model omitted the streetcar phase and allocated the additional green time to H/Benning through movements. Each model provided auto delay and v/c ratios as outputs. A weighted average of the delay (with and without streetcar) and v/c ratio (with and without streetcar) was calculated, with the weights corresponding to the number of cycles per hour in which the streetcar will or will not be present.

The cycle length for the corridor is 100 seconds long, which corresponds to 36 cycles per hour. There are 12 streetcars per hour in the corridor during the study time periods (6 streetcars per direction per

hour). To avoid underestimating the effect that the streetcar has on intersection operations, the assumption is that each streetcar will arrive separately from a streetcar traveling in the other direction. This should represent typical operating conditions given the selection of 10-minute streetcar headways. Therefore, there are 12 cycles that the streetcar phase will be called within an hour, and 24 cycles where the streetcar phase will be skipped. The total intersection per-vehicle delay will thereby be determined using by summing the streetcar model per-vehicle delay and two times the non-streetcar model per-vehicle delay, divided by three.

The VISSIM models utilize a "virtual" traffic controller, called a Ring-Barrier Controller (RBC). The RBC is derived from firmware (D4) that operates in a Type 2070 controller used in various cities, such as San Francisco, CA. This provides tremendous flexibility for how a signalized intersection can operate in a simulated environment, while ensuring the operations are rooted in reality. Hence the VISSIM simulation is able to accurately reflect a cycle-by-cycle operation of the intersection, and the immediate impacts of streetcars, buses and variable traffic demand. More importantly, VISSIM is able to simulate how the intersection recovers from those events.

The signal timing plans used in the VISSIM models were generally based on those developed and used in the Synchro analysis. The general operation of the intersection, whether it was actuated-coordinated or fixed time, was maintained through the modeling exercise. The cycle lengths, coordination offset values, and phase green times were programmed to match the Synchro models. The programming of the RBC controller is very similar to programming a real traffic controller - various tables and patterns are populated with timing parameters.

At the locations of the turnarounds and at the Starburst intersection, advanced signal operations were introduced for the Streetcar scenarios. Those include actuated signal phases for the streetcar which reflects detection and streetcar-only signal phasing. Additionally, the Starburst intersection and the pedestrian signal immediately to the west of the Starburst intersection was programmed to operate as one intersection, with the signal output driven by a series of overlaps - exactly as what is presented in Section 6.

VISSIM Model Development

Development of the VISSIM models followed the Federal Highway Administration's (FHWA) 7-step process as outlined in the FHWA's Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software. These steps are summarized below.

- Identification of Study Purpose, Scope, and Approach
- Data Collection and Preparation
- Base Model Development
- Error Checking
- Calibration

- Alternatives Analysis
- Final Report and Technical Documentation

The study time periods for VISSIM were the same as for the Synchro models. In addition to the peak hour volumes, a thirty-minute "warm-up", and thirty-minute "cool-down" period was added to each side of the peak period, respectively. The warm-up period of the model was used to "prime" the model for peak hour conditions. The cool-down period was used to provide stability to the model, to confirm that peak hour spreading did not occur, and to verify that congestion did not spill over into adjacent time periods. Data for the warm-up and cool-down periods was developed based on the same traffic counts used to develop the peak hour data.

Base Model Development

Using the data outlined above, a base model was developed with the technical documentation provided with VISSIM and using industry best practices. The base model represents an uncalibrated condition and is the preliminary step in model development. The following key information regarding the basic settings of model is summarized below:

- VISSIM version 5.40
- A modeling resolution of 10 steps per second
- Default vehicle lengths and distributions
- Wiedemann 74 driver behaviors

Vehicle Inputs and Routing

Vehicle inputs were allocated to each entry point of the model based on the traffic counts. These input volumes were directed through the network via routing decisions based on turning movements at the study intersections. Routing decisions were coded in a manner so that the beginning of the decision occurs as far upstream of the first decision point as possible. This enables vehicles to make a decision at the first opportunity to do so.

As a result of the calibration process, the model was modified to include eastbound vehicles entering the network at 18th Street, in order to represent vehicles entering the Benning Road corridor from unsignalized intersections that were not counted as part of the data collection effort.

Vehicle Speeds

Vehicle speeds were assigned to all vehicles upon entry in the network. Heavy vehicles, passenger cars, and buses were allocated desired speeds based in a distribution between 25 and 28 miles per hour.

Reduced speed areas were placed on any link or connector whose corresponding roadway geometry would cause vehicles to temporarily slow down to negotiate the area. The most common area for

reduced speed zones are where vehicles make left and right turns. The following reduced speed area settings were used:

- Right Turns – 12.4 to 15.5 mph
- Left Turns – 12.4 to 15.5 mph

Conflicts Areas/Priority Rules

Conflicts in VISSIM may be modeled using conflict areas and/or priority rules. Typically it is desired to use conflict areas, though certain situations may require the use of priority rules. For the VISSIM models, conflict areas were used instead of priority rules. Conflict areas were applied where vehicle paths overlapped such as those at merge and diverge points, permissive left turns, and pedestrian crossings.

Traffic Signal Control

Each signalized intersection along the corridor was modeled using a distinct ring-barrier control (RBC) file which stores the timing parameters for each signal. The RBC files were then connected to the corresponding intersections and signal heads in the model.

Data Collection

Traffic operations data was extracted from the model via two methods. First, each intersection was designated a "node" for which traffic volume, vehicle delay, and queue length were collected. Secondly, travel time points were placed throughout the model to collect travel times for various vehicle types for key segments of the network.

Public Transit

Existing public transit services were included in the model, with data taken from the Washington Metropolitan Area Transit Authority (WMATA) website on August, 1 2012. Routes serving the study corridor are:

- **B2: Bladensburg Road-Anacostia** – which travels north-south along Bladensburg Road, using 15th Street for northbound and 14th Street for southbound service. This route has an average headway of eight to 10 minutes.
- **D8: Hospital Center** – which takes an east-west heading along H Street, using 6th Street for eastbound and 4th Street for westbound service. This line has an average headway of 10 minutes.

- **X1, X3: Benning Road** – both lines are an east-west service, with X1 using H Street and Benning Road, and X3 using Florida Avenue and Benning Road. These are peak period only routes, with 15-minute headways.
- **X2: Benning Road-H Street** – a regular service line along H Street and Benning Road with a headway of approximately eight minutes.
- **X9: Benning Road-H Street Express** – a peak period route, with limited stops along Benning Road and H Street, with a headway of 15 minutes.

The other bus routes that pass through the study corridor, which neither stop within the corridor nor operate during the study period, were not included in the model.

Error Checking

The error checking process is summarized below. It is similar to the process outlined in FHWA Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software. Error checking was completed prior to model calibration.

- Review Input
  - Roadway network
  - Traffic volumes and routing
  - Traffic control
- Review Animation
  - Driver behavior (weaving, merging, and diverging locations)
  - Location, extent and frequency of congestion
  - Miscellaneous localized problems
- Review Errors
  - Traffic unable to enter network
  - Traffic removed from simulation

Existing Condition Model Calibration

Calibration of the VISSIM model occurred for the "existing conditions" model only. The modified parameters were carried forward to future conditions models. The existing conditions model is deemed calibrated when the volume, speed, and other operational observations are satisfactorily replicated to those in the field. The calibration process is illustrated in Figure 5 below.

Calibration for the existing conditions model was based on reaching target thresholds of model-reported results versus field-measured data. The model was calibrated based on traffic volumes, urban

arterial performance, and visual accuracy with field conditions. Each of the thresholds for these areas is detailed below. For this effort, traffic volume was the primary calibration metric, while urban arterial performance and visual accuracy were secondary concerns. Once the outlined targets discussed in the next section were met, the model was considered calibrated, and existing condition measures of effectiveness were collected.

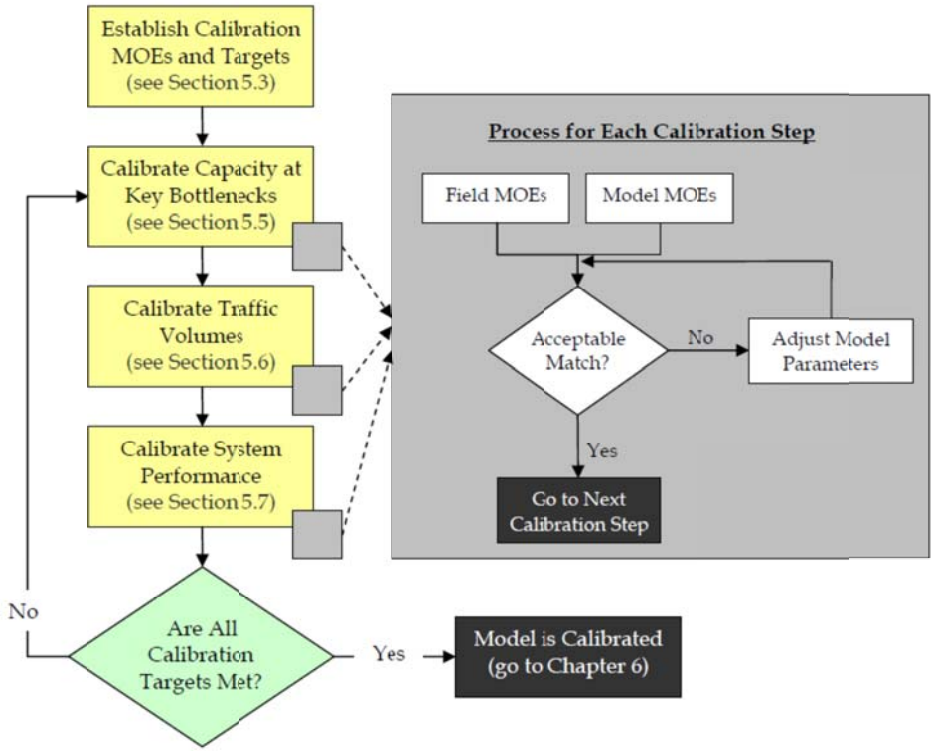


Figure 5. Calibration Approach Flowchart (Source: FHWA Traffic Analysis Toolbox Volume IV)

Traffic Volume Calibration (Primary Calibration Indicator)

Traffic volume calibration involves measuring averaged modeled volumes against field-measured data. This comparison was done with the GEH statistic formula. The GEH formula was empirically developed to review traffic models involving a wide variety of traffic volume intensities. Its primary benefit is that it accounts for the desire to have varying levels of agreement depending on how large or small traffic volumes are.

An example of this issue is that a turning movement of 50 vehicles per hour may experience a typical stochastic model fluctuation of between 10-20 vehicles or 20-40 percent and still be acceptable. While a mainline volume of 5,000 vehicles per hour should experience a fluctuation of no more then 5-10 percent. In using the GEH formula, the same set of rules can be used for any volume as the desired deviation from the measured volume is built into the formula. In this manner, the formula is similar to a Chi-Squared test.

The GEH formula is:

$$GEH = \sqrt{\frac{(E-V)^2}{(E+V)/2}}$$

where,

$E = model\ estimated\ volume$

$V = field\ count$

For this modeling effort, the following guidance was used regarding the GEH score of calibrated movements.

- GEH Less than 2 – Calibrated Value
- GEH Between 2 and 5 – Acceptable Value
- GEH Between 5 and 10 – Review model, provide comment if volume cannot be further calibrated
- GEH Greater than 10 – Revise model, provide explanation in report if volume cannot be further calibrated

Target goals for this model development are:

- 85 percent of the modeled movements with a GEH score below a 2, and
- 98 percent of the movements with a GEH score below a 5.

Urban Arterial Calibration (Secondary Calibration Indicator)

Some adjustments were made to the driver behavior parameters to account for the various unsignalized intersections and driveways that were excluded from the model, but create friction along the corridor. The saturation flow rate was modified through the adjustment of the additive and multiplicative safety distance factors. These factors work in tandem to determine a vehicles desired distance to keep from the preceding vehicle.

Visual Calibration (Secondary Calibration Indicator)

VISSIM is capable of producing a visual output of the model which can be compared to field observations. This visual observation was completed to confirm that the model overall operates as expected and that the representation of driver behavior is reasonable.

Section 6
Results

RESULTS

The traffic analysis results for the H Street/Benning corridor is described in this section, organized into two parts. The first part examines the intersections operations for the three streetscape scenarios: existing, No-Build, and Build. The second section examines the intersection and corridor operations for the streetcar scenarios.

For all scenarios at the intersection level, operational results for all signalized intersections are presented in tabular format. The results are described using intersection LOS, per-vehicle delay, and the v/c ratio as measures of effectiveness (MOEs). Results from all study intersections have been reported.

The lane configurations are shown in Figure 6, Figure 7, and Figure 8. Results for the three representative intersections are shown with an accompanying map in Figure 9, Figure 10, and Figure 11 at the end of this section of the report. In addition, 95th percentile queuing results are shown for the three intersections.

At the corridor level, the MOE used is travel time. Travel times are reported for the western section (H Street), the eastern section (Benning Road), and for the entire corridor as a whole.

STREETSCAPE ALTERNATIVES

Scenario 1a: 2006 Existing Conditions

The results for the 2006 existing conditions scenario show that vehicles flow smoothly through the network with little congestion and vehicle queuing during both the a.m. and p.m. peak hours. All study intersections are LOS 'D' or better. The operations summary for all intersections is shown in Table 14.

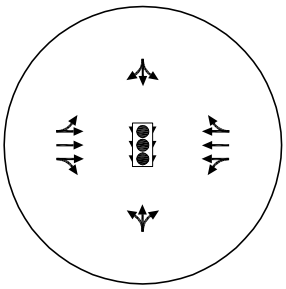
Table 14. 2006 Existing Conditions (1a) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	10.4	B	0.34	9.0	A	0.35
H Street/Kaiser Garage	3.8	A	0.31	3.9	A	0.31
H Street/3rd Street	21.0	C	0.48	12.5	B	0.41
H Street/4th Street	11.9	B	0.42	10.1	B	0.44
H Street/6th Street	7.9	A	0.47	14.1	B	0.50
H Street/7th Street	3.2	A	0.36	3.9	A	0.35
H Street/8th Street	23.4	C	0.45	12.5	B	0.45
H Street/9th Street	5.1	A	0.35	4.6	A	0.31
H Street/10th Street	16.5	B	0.39	7.4	A	0.34
H Street/11th Street	12.5	B	0.35	11.3	B	0.40
H Street/12th Street	4.5	A	0.33	8.6	A	0.29
H Street/13th Street	8.2	A	0.41	12.0	B	0.42
H Street/14th Street	14.7	B	0.39	13.3	B	0.48
Starburst	19.2	B	0.65	26.1	C	0.88
Maryland Avenue/Bladensburg Road	36.8	D	0.26	10.5	B	0.32
Benning Road/16th Street	4.1	A	0.46	8.5	A	0.33
Benning Road/17th Street	17.5	B	0.65	14.3	B	0.50
Benning Road/19th Street	11.0	B	0.53	8.1	A	0.43
Benning Road/21st Street	3.9	A	0.41	7.2	A	0.40
Benning Road/24th Street	2.1	A	0.37	1.9	A	0.30
Benning Road/26th Street	5.4	A	0.42	4.9	A	0.39
Benning Road / Oklahoma Avenue	5.8	A	0.54	4.2	A	0.39

LANE CONFIGURATIONS

SCENARIO

1A



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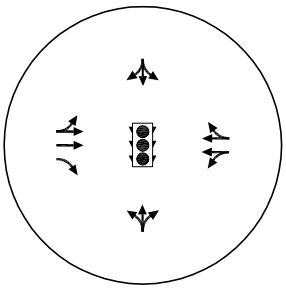

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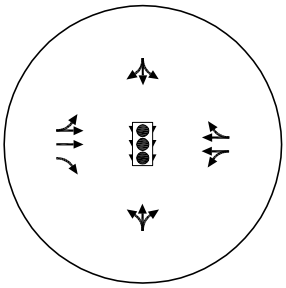

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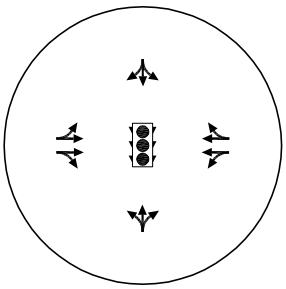
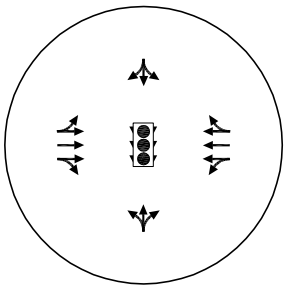


LANE CONFIGURATIONS

SCENARIO

1B



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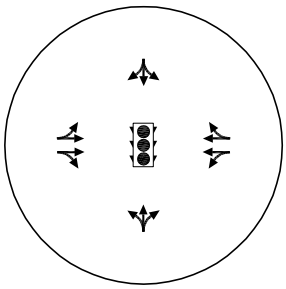

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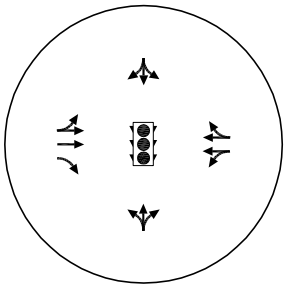

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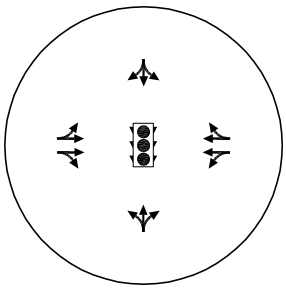
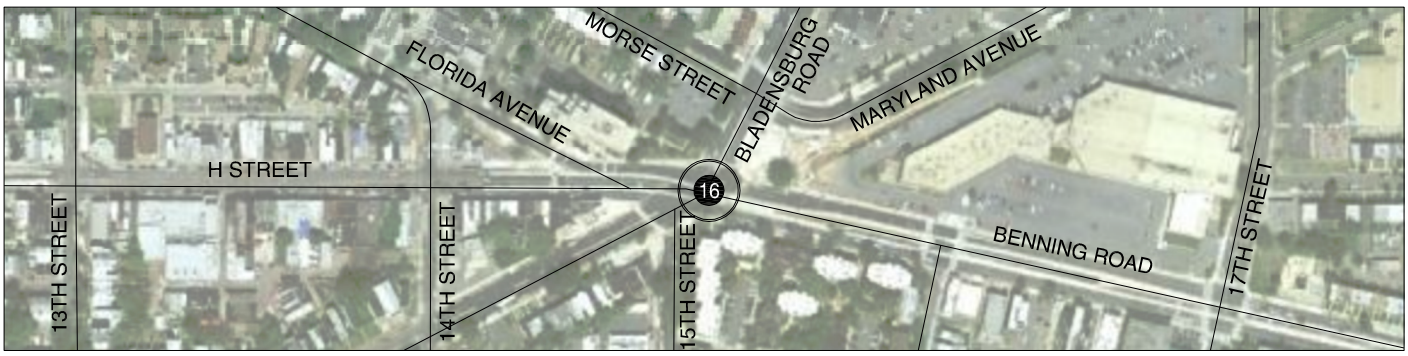


LEGEND SCENARIO DESCRIPTION

1A - EXISTING CONDITIONS, 2006, 6/8 LANE
1B - DESIGN YEAR NO-BUILD, 2040, 6/8 LANE
1C - DESIGN YEAR BUILD, 2040, 4/6 LANE
2A - EXISTING CONDITIONS, 2012, 4/6 LANE
2B - OPENING YEAR NO-BUILD, 2013, 4/6 LANE
2C - OPENING YEAR BUILD, 2013, 4/6 LANE
2D - DESIGN YEAR NO-BUILD, 2040, 4/6 LANE
2E - DESIGN YEAR BUILD 2040, 4/6 LANE

H STREET/3RD STREET
SCENARIO LANE CONFIGURATIONS
WASHINGTON, DC

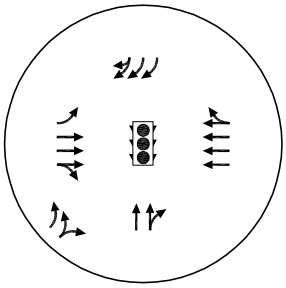
FIGURE 6



LANE CONFIGURATIONS

SCENARIO

1A



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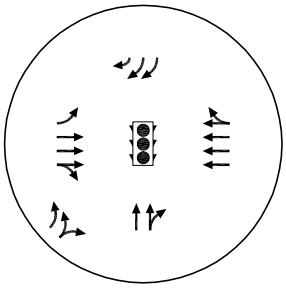

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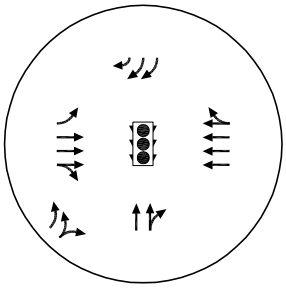

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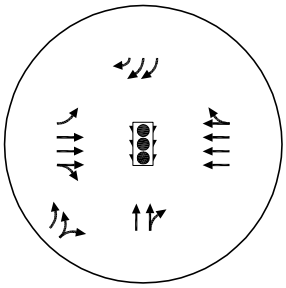
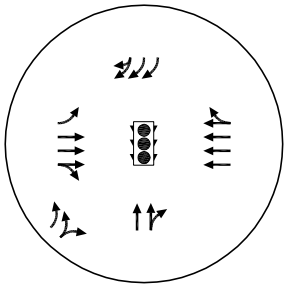


LANE CONFIGURATIONS

SCENARIO

1B



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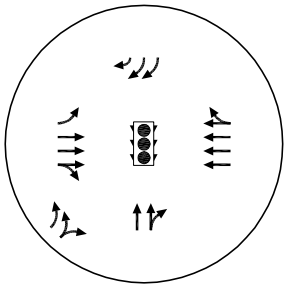

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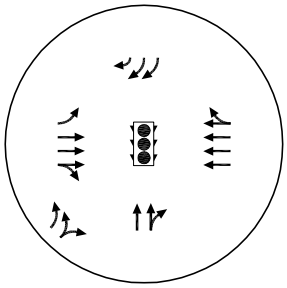

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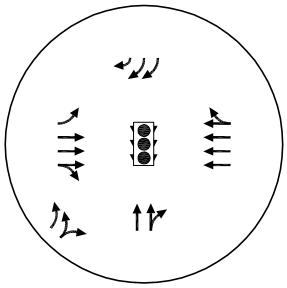
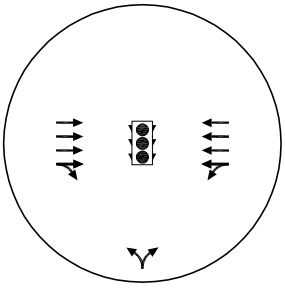
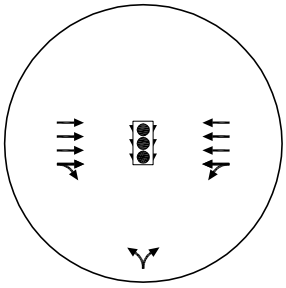
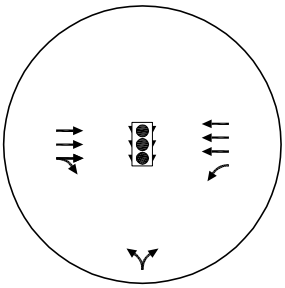
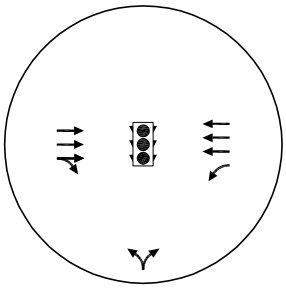
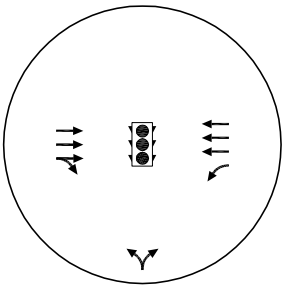
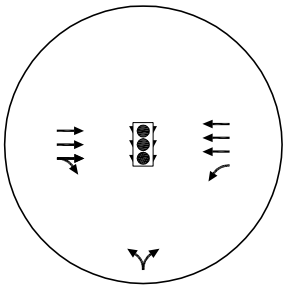
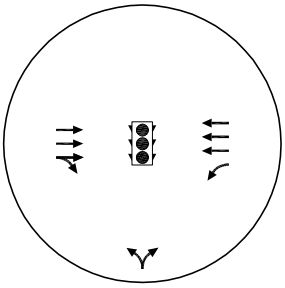
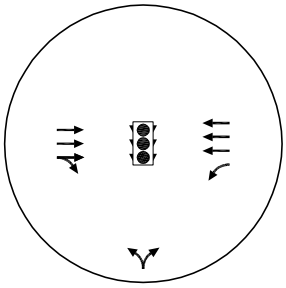


LEGEND SCENARIO DESCRIPTION

1A - EXISTING CONDITIONS, 2006, 6/8 LANE
1B - DESIGN YEAR NO-BUILD, 2040, 6/8 LANE
1C - DESIGN YEAR BUILD, 2040, 4/6 LANE
2A - EXISTING CONDITIONS, 2012, 4/6 LANE
2B - OPENING YEAR NO-BUILD, 2013, 4/6 LANE
2C - OPENING YEAR BUILD, 2013, 4/6 LANE
2D - DESIGN YEAR NO-BUILD, 2040, 4/6 LANE
2E - DESIGN YEAR BUILD 2040, 4/6 LANE

STARBURST
SCENARIO LANE CONFIGURATIONS
WASHINGTON, DC

FIGURE 7

SCENARIO	LANE CONFIGURATIONS	SCENARIO	LANE CONFIGURATIONS
1A		1B	
2A		1C	
2B		2D	
2C		2E	

LEGEND SCENARIO DESCRIPTION

1A - EXISTING CONDITIONS, 2006, 6/8 LANE
1B - DESIGN YEAR NO-BUILD, 2040, 6/8 LANE
1C - DESIGN YEAR BUILD, 2040, 4/6 LANE
2A - EXISTING CONDITIONS, 2012, 4/6 LANE
2B - OPENING YEAR NO-BUILD, 2013, 4/6 LANE
2C - OPENING YEAR BUILD, 2013, 4/6 LANE
2D - DESIGN YEAR NO-BUILD, 2040, 4/6 LANE
2E - DESIGN YEAR BUILD 2040, 4/6 LANE

BENNING ROAD/OKLAHOMA AVENUE
SCENARIO LANE CONFIGURATIONS
WASHINGTON, DC

FIGURE 8

K:\H_Baltimore\profile\12654 - H Benning EA (Task 29)\dwgs\figs\12654_Figs.dwg Sep 07, 2012 - 3:20pm - ajahnle Layout Tab: Fig 08

Table 15 displays the 95th percentile queuing results for all approaches at three representative study intersections during the 2006 existing conditions scenario.

Table 15. Existing Conditions (1a) Intersection 95th Percentile Queuing

	Approach	AM	PM
		95th Percentile Queue (ft)	95th Percentile Queue (ft)
H Street/3rd Street	EB	50	160
	WB	315	50
	NB	155	135
	SB	85	185
Starburst	EB	85	#320
	WB	180	20
	NBT (15th Street)	105	#180
	SBTR	275	125
	NET (Maryland Avenue)	100	200
Benning Road/Oklahoma Avenue	EB	25	25
	WB	235	65
	NB	80	140

#: Volume for the 95th percentile cycle exceeds capacity

Table 16 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2006 existing conditions scenario for ten locations.

Table 16. Existing Conditions (1a) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	1,670	1,725	22,100
H St: 6th St to 7th St	EB & WB	1,580	1,535	19,700
H St: 10th St to 11th St	EB & WB	1,515	1,515	19,400
H St: 12th St to 13th St	EB & WB	1,500	1,540	19,700
H St: 14th St to Starburst	EB & WB	1,675	2,080	26,700
Benning Rd: Starburst to 16th St	EB & WB	2,365	2,150	27,600
Benning Rd: 17th St to 19th St	EB & WB	2,755	2,650	34,000
Benning Rd: 19th St to 21st St	EB & WB	2,525	2,405	30,800
Benning Rd: 24th St to 26th St	EB & WB	2,505	2,460	31,500
Benning Rd: East of Oklahoma Ave	EB & WB	2,830	2,655	34,000

Scenario 1b: 2040 No-Build

The results for the 2040 No-Build scenario show that congestion increases by 2040 such that intersection operations at the Starburst exceeds LOS 'D' during the a.m. peak hour. This is primarily related to increase in travel demand in the corridor. The operations summary for all intersections is shown in Table 17. The complete operational results for the intersections within the entire study area can be found in Appendix 3.

Table 17. 2040 No-Build (1b) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	11.9	B	0.42	11.7	B	0.43
H Street/Kaiser Garage	3.8	A	0.39	3.9	A	0.37
H Street/3rd Street	24.3	C	0.64	16.3	B	0.53
H Street/4th Street	13.6	B	0.55	12.7	B	0.54
H Street/6th Street	16.7	B	0.67	15.5	B	0.61
H Street/7th Street	3.2	A	0.36	3.9	A	0.35
H Street/8th Street	25.3	C	0.59	26.6	C	0.67
H Street/9th Street	8.0	A	0.42	4.0	A	0.36
H Street/10th Street	19.5	B	0.48	7.4	A	0.41
H Street/11th Street	16.6	B	0.60	18.9	B	0.64
H Street/12th Street	4.5	A	0.48	12.4	B	0.41
H Street/13th Street	10.9	B	0.60	13.5	B	0.63
H Street/14th Street	20.2	C	0.39	13.9	B	0.48
Starburst	39.4	D	> 1.0	47.8	D	> 1.0
Maryland Avenue/Bladensburg Road	19.7	B	0.39	9.9	A	0.39
Benning Road/16th Street	6.1	A	0.61	13.6	B	0.55
Benning Road/17th Street	46.0	D	0.87	17.0	B	0.69
Benning Road/19th Street	22.7	C	0.76	7.0	A	0.52
Benning Road/21st Street	4.1	A	0.49	8.8	A	0.55
Benning Road/24th Street	2.2	A	0.43	2.0	A	0.36
Benning Road/26th Street	5.9	A	0.50	6.3	A	0.49
Benning Road / Oklahoma Avenue	6.6	A	0.63	3.5	A	0.45

Table 18 displays the 95th percentile queuing results for all approaches at three representative study intersections during the 2040 No-Build scenario.

Table 18. 2040 No-Build (1b) Intersection 95th Percentile Queuing Results

	Approach	AM	PM
		95th Percentile Queue (ft)	95th Percentile Queue (ft)
H Street/3rd Street	EB	5	25
	WB	25	20
	NB	#230	125
	SB	100	#335
Starburst	EB	m55	m#105
	WB	210	250
	NBT (15th Street)	#265	#270
	SBTR	250	170
	NET (Maryland Avenue)	m#195	85
Benning Road/Oklahoma Avenue	EB	40	30
	WB	320	125
	NB	95	125

#: Volume for the 95th percentile cycle exceeds capacity

m: Volume for the 95th percentile queue is metered by an upstream signal

Table 19 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2040 No-Build scenario for ten locations.

Table 19. 2040 No-Build (1b) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	1,670	1,725	22,100
H St: 6th St to 7th St	EB & WB	1,580	1,535	19,700
H St: 10th St to 11th St	EB & WB	1,515	1,515	19,400
H St: 12th St to 13th St	EB & WB	1,500	1,550	19,900
H St: 14th St to Starburst	EB & WB	1,755	2,095	26,900
Benning Rd: Starburst to 16th St	EB & WB	2,365	2,150	27,600
Benning Rd: 17th St to 19th St	EB & WB	2,755	2,650	34,000
Benning Rd: 19th St to 21st St	EB & WB	2,525	2,405	30,800
Benning Rd: 24th St to 26th St	EB & WB	2,505	2,460	31,500
Benning Rd: East of Oklahoma Ave	EB & WB	2,830	2,655	34,000

Scenario 1c: 2040 Streetscape

The results for the 2040 Streetscape scenario show that reducing the cross-section on H Street and Benning Road creates additional congestion on H Street and Benning Road. The intersection of Benning Road and 17th Street operates at LOS 'E' during the a.m. peak hour. The operations summary for the intersections within the entire study area is shown in Table 20.

Table 20. 2040 Streetscape (1c) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	9.1	A	0.32	9.2	A	0.30
H Street/Kaiser Garage (unsignalized)	11.5 (NB)	B (NB)	0.03 (NB)	10.8 (NB)	B (NB)	0.05 (NB)
H Street/3rd Street	24.0	C	0.66	18.9	B	0.51
H Street/4th Street	18.6	B	0.64	17.7	B	0.51
H Street/6th Street	12.1	B	0.70	59.0	E	0.67
H Street/7th Street	3.6	A	0.52	5.0	A	0.50
H Street/8th Street	24.9	C	0.78	19.0	B	0.67
H Street/9th Street	4.4	A	0.59	5.9	A	0.48
H Street/10th Street	4.8	A	0.65	9.4	A	0.54
H Street/11th Street	17.8	B	0.77	13.1	B	0.71
H Street/12th Street	5.4	A	0.60	8.3	A	0.53
H Street/13th Street	9.3	B	0.63	21.0	C	0.81
H Street/14th Street	27.4	C	0.56	18.9	B	0.65
Starburst	41.1	D	> 1.0	54.2	D	> 1.0
Maryland Avenue/Bladensburg Road	21.8	C	0.36	14.6	B	0.41
Benning Road/16th Street	5.0	A	0.52	14.8	B	0.53
Benning Road/17th Street	61.5	E	0.92	22.6	C	0.76
Benning Road/19th Street	22.5	C	0.85	8.4	A	0.47
Benning Road/21st Street	6.4	A	0.56	11.6	B	0.50
Benning Road/24th Street	2.9	A	0.56	2.2	A	0.41
Benning Road/26th Street	7.7	A	0.69	7.4	A	0.53
Benning Road / Oklahoma Avenue	2.8	A	0.58	9.3	A	0.61

Table 21 displays the 95th percentile queuing results for all approaches at three representative study intersections during the 2040 streetscape scenario.

Table 21. 2040 Streetscape (1c) Intersection 95th Percentile Queuing

	Approach	AM	PM
		95th Percentile Queue (ft)	95th Percentile Queue (ft)
H Street/3rd Street	EB	25	60
	WB	15	55
	NB	#185	95
	SB	115	#355
Starburst	EB	#275	m#360
	WB	80	55
	NBT (15th Street)	#280	#220
	SBTR	100	90
	NET (Maryland Avenue)	#255	#350
Benning Road/Oklahoma Avenue	EB	190	425
	WB	375	150
	NB	20	170

#: Volume for the 95th percentile cycle exceeds capacity

m: Volume for the 95th percentile queue is metered by an upstream signal

Table 22 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2040 Streetscape scenario for ten locations.

Table 22. 2040 Streetscape (1c) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	1,770	1,825	23,400
H St: 6th St to 7th St	EB & WB	1,650	1,605	20,600
H St: 10th St to 11th St	EB & WB	1,585	1,585	20,300
H St: 12th St to 13th St	EB & WB	1,570	1,625	20,800
H St: 14th St to Starburst	EB & WB	1,835	2,195	28,100
Benning Rd: Starburst to 16th St	EB & WB	2,475	2,250	28,800
Benning Rd: 17th St to 19th St	EB & WB	2,880	2,780	35,600
Benning Rd: 19th St to 21st St	EB & WB	2,640	2,520	32,300
Benning Rd: 24th St to 26th St	EB & WB	2,625	2,575	33,000
Benning Rd: East of Oklahoma Ave	EB & WB	2,980	2,735	35,100

STREETCAR ALTERNATIVES

VISSIM microsimulation results were prepared for each of the four alternatives per the modeling methodology outlined in Section 4. Key MOEs desired for the analysis were: travel times along the corridor, intersection delay, level of service, and 95th percentile queuing reports for all the intersections in the study corridor. A summary of the evaluation results from is provided below for every simulated scenario.

Scenario 2a: 2012 Existing Conditions AM/PM

For year 2012 existing conditions in the a.m. peak period, vehicles flow smoothly through the network with little congestion and vehicle queuing. The p.m. peak period shows some congestion on southbound 14th Street due to the heavy left-turn demand. The "Starburst" intersection operates with acceptable delay during both time periods. Buses stop in the travel lane to access the curbside bus stops, temporarily reducing through capacity. The following tables provide a summary of the evaluation results from the VISSIM modeling.

Table 23 shows the summarized GEH calibration results for the Existing Conditions model.

Table 23. Existing Conditions (2a) Calibration Results

Calibration Metric		Model Result		Target	Met Target	
		AM	PM		AM	PM
Volume	GEH Below 2	99%	97%	85%	Yes	Yes
	GEH Below 5	100%	100%	98%	Yes	Yes
	GEH Below 10	100%	100%	100%	Yes	Yes

Table 24 displays a summary of the travel time, in seconds, for general traffic for the year 2012 existing conditions scenario. The travel times shown in the table below are broken into three corridor segments which are as follows:

- 3rd St. to Oklahoma Ave. (entire corridor)
- 3rd St. to Starburst (west side of the corridor)
- Starburst to Oklahoma Ave. (east side of the corridor)

Table 24. 2012 Existing Conditions (2a) Travel Time (in seconds) Summary

Time Period	3rd St to Oklahoma		3rd St to Starburst		Starburst to Oklahoma	
	EB	WB	EB	WB	EB	WB
AM	471	415	320	238	151	177
PM	403	455	260	264	143	191

The summary of the intersection operations for the existing conditions scenario is shown in Table 25.

Table 25. 2012 Existing Conditions (2a) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	5.1	A	0.36	9.7	A	0.38
H Street/Kaiser Garage	5.1	A	0.35	6.5	A	0.34
H Street/3rd Street	11.5	B	0.69	15.2	B	0.55
H Street/4th Street	7.9	A	0.58	12.8	B	0.60
H Street/6th Street	13	B	0.64	15.8	B	0.69
H Street/7th Street	3.8	A	0.52	7.3	A	0.50
H Street/8th Street	15.7	B	0.62	16.7	B	0.61
H Street/9th Street	6.3	A	0.52	5.7	A	0.46
H Street/10th Street	5.7	A	0.57	11.2	B	0.49
H Street/11th Street	12.3	B	0.51	7.9	A	0.55
H Street/12th Street	6.2	A	0.49	3.8	A	0.43
H Street/13th Street	9.5	A	0.57	14.4	B	0.58
H Street/14th Street	14.9	B	0.56	25.6	C	0.65
Starburst	24.4	C	0.67	26.3	C	0.95
Maryland Avenue/Bladensburg Road	30.3	C	0.27	10.8	B	0.36
Benning Road/16th Street	10.3	B	0.54	13	B	0.44
Benning Road/17th Street	15.1	B	0.80	18.1	B	0.64
Benning Road/19th Street	12.2	B	0.75	8.4	A	0.52
Benning Road/21st Street	6.4	A	0.55	8.3	A	0.47
Benning Road/24th Street	2.4	A	0.54	2.1	A	0.41
Benning Road/26th Street	3.8	A	0.60	4.5	A	0.48
Benning Road / Oklahoma Avenue	5.6	A	0.57	2.8	A	0.55

Table 26 displays the 95th percentile queuing results for three representative study intersections during the existing conditions scenario for both time periods.

Table 26. Existing Conditions (2a) Intersection Percentile Queuing (feet)

	Approach	95th Percentile Queue (feet)	
		AM	PM
H Street/3rd Street	NB	130	110
	EB	75	130
	SB	80	275
	WB	265	90
Starburst	NB	105	165
	NEB (Maryland)	85	220
	EB*	130	235
	SWB (Bladensburg)	220	120
	WB	380	130
Benning Road/Oklahoma Avenue	NB	45	65
	EB	80	85
	WB	150	40

*The listed queue corresponds to the eastbound left turn movement which is the highest for the approach. The queue for the through and right turn movements is 40 for the a.m. and 190 for the p.m.

Table 27 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2040 Streetscape scenario for ten locations.

Table 27. 2012 Existing Conditions (2a) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	1,760	1,810	23,200
H St: 6th St to 7th St	EB & WB	1,650	1,605	20,600
H St: 10th St to 11th St	EB & WB	1,595	1,585	20,300
H St: 12th St to 13th St	EB & WB	1,570	1,615	20,700
H St: 14th St to Starburst	EB & WB	1,835	2,195	28,100
Benning Rd: Starburst to 16th St	EB & WB	2,475	2,250	28,800
Benning Rd: 17th St to 19th St	EB & WB	2,880	2,650	34,000
Benning Rd: 19th St to 21st St	EB & WB	2,640	2,520	32,300
Benning Rd: 24th St to 26th St	EB & WB	2,625	2,575	33,000
Benning Rd: East of Oklahoma Ave	EB & WB	2,975	2,785	35,700

Scenarios 2b and 2c: 2013 No-Build and 2013 Build

The year 2013 Opening Year No-Build scenario would operate similarly to the year 2012 existing conditions as the traffic volumes and operational parameters are similar. The No-Build a.m. peak hour would have little congestion and vehicle queuing. Similar to the year 2012 existing conditions scenario for the p.m. peak hour, 2013 p.m. peak hour would have some congestion on southbound 14th Street. The "Starburst" intersection would operate with acceptable delay during both time periods. All intersections would meet LOS 'D'.

The addition of the streetcar for the year 2013 Build scenarios would impact vehicle flow due to the additional signal phases at H Street/3rd Street, westbound at the "Starburst" intersection, and at the eastern turnaround point. In addition, the streetcar would stop in the traffic lane to serve stations, which would increase through vehicle delay. However, no areas of concern were identified in this scenario.

Table 28 displays a summary of the Travel Time in seconds for general traffic and streetcar during the Opening Year scenarios.

Table 28. 2013 Opening Year (2b and 2c) Travel Time (in seconds) Summary

Model	Time Period	3rd St to Oklahoma		3rd St to Starburst		Starburst to Oklahoma	
		EB	WB	EB	WB	EB	WB
General Traffic							
2b: No-Build	AM	471	420	320	241	151	179
	PM	403	454	261	264	142	190
2c: Build	AM	440	489	294	291	146	198
	PM	459	454	324	278	135	176
Streetcar							
2c: Build	AM	614	710	377	336	237	374
	PM	664	630	390	337	274	293

The summary of intersection operations for the intersections within the study area for the year 2013 opening year scenarios is shown in Table 29 and Table 30.

Table 29. 2013 Opening Year (2b) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	4.9	A	0.36	10.2	B	0.39
H Street/Kaiser Garage	5.1	A	0.35	6.6	A	0.34
H Street/3rd Street	11.6	B	0.69	14.2	B	0.55
H Street/4th Street	8.3	A	0.59	12.8	B	0.60
H Street/6th Street	13.2	B	0.65	16.1	B	0.69
H Street/7th Street	3.7	A	0.53	7.2	A	0.50
H Street/8th Street	15.9	B	0.63	16.8	B	0.61
H Street/9th Street	6.6	A	0.52	5.6	A	0.46
H Street/10th Street	5.6	A	0.57	11.2	B	0.50
H Street/11th Street	12.6	B	0.51	8	B	0.56
H Street/12th Street	6.3	A	0.49	3.8	A	0.43
H Street/13th Street	9.7	A	0.57	14.5	B	0.59
H Street/14th Street	15.2	B	0.57	26.1	C	0.65
Starburst	24.9	C	0.68	20.8	C	0.96
Maryland Avenue/Bladensburg Road	30.2	C	0.28	10.9	B	0.37
Benning Road/16th Street	10.9	B	0.55	13.6	B	0.44
Benning Road/17th Street	15.1	B	0.81	18.2	B	0.65
Benning Road/19th Street	12.4	B	0.76	8.4	A	0.52
Benning Road/21st Street	6.4	A	0.56	8.2	A	0.47
Benning Road/24th Street	2.4	A	0.55	2.1	A	0.42
Benning Road/26th Street	3.8	A	0.60	4.5	A	0.48
Benning Road / Oklahoma Avenue	5.7	A	0.58	2.8	A	0.56

Table 30. 2013 Opening Year (2c) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	6.7	A	0.36	8.9	A	0.39
H Street/Kaiser Garage (unsignalized)	10.7 (NB)	B (NB)	0.05 (NB)	11.5 (NB)	B (NB)	0.03 (NB)
H Street/3rd Street	20.8	C	0.81	25.4	C	0.67
H Street/4th Street	22.6	C	0.59	14.8	B	0.61
H Street/6th Street	16	B	0.65	16.7	B	0.69
H Street/7th Street	5.6	A	0.53	7.6	A	0.50
H Street/8th Street	15	B	0.63	19.2	B	0.61
H Street/9th Street	5.2	A	0.52	5.3	A	0.46
H Street/10th Street	5.9	A	0.57	8.7	A	0.50
H Street/11th Street	11.8	B	0.51	8.4	A	0.56
H Street/12th Street	7.2	A	0.49	5.6	A	0.43
H Street/13th Street	12.9	B	0.57	15.9	B	0.59
H Street/14th Street	14	B	0.57	45	D	0.65
Starburst	27.3	C	0.74	15.9	B	> 1.0
Maryland Avenue/Bladensburg Road	17.1	B	0.28	9.2	A	0.37
Benning Road/16th Street	11.5	B	0.55	8.3	A	0.44
Benning Road/17th Street	16.3	B	0.81	17	B	0.65
Benning Road/19th Street	14.7	B	0.76	9	A	0.52
Benning Road/21st Street	6.4	A	0.56	8.3	A	0.47
Benning Road/24th Street	2.5	A	0.55	2.3	A	0.42
Benning Road/26th Street	4.3	A	0.60	5	A	0.48
Benning Road / Oklahoma Avenue	4.4	A	0.58	3.1	A	0.56

Table 31 displays the 95th percentile queue for all approaches for three selected study intersections during the opening year scenarios for both time periods.

Table 31. 2013 Opening Year (2b and 2c) 95th Percentile Queuing (feet)

	Approach	AM		PM	
		2b: No-Build	2c: Build	2b: No-Build	2c: Build
H Street/3rd Street	NB	130	125	110	125
	EB*	70	85	130	320
	SB	80	75	260	240
	WB	260	410	90	190
Starburst	NB	105	105	165	130
	NEB (Maryland)	85	80	60	45
	EB*	140	265	215	225
	SWB (Bladensburg)	225	250	120	120
	WB	390	440	125	80
Benning Road/Oklahoma Avenue	NB	45	60	65	65
	EB	80	80	80	135
	WB	150	80	40	40

*The listed queue corresponds to the eastbound left turn movement which is the highest for the approach. The queue for the through and right turn movement in the No Build scenarios is 40 for the a.m. and 18 for the p.m. For the Build scenarios is 220 for the a.m. and 85 for the p.m.

Table 32 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2040 Streetscape scenario for ten locations.

Table 32. 2013 Opening Year (2b and 2c) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	Scenario 2b			Scenario 2c		
		AM	PM	Daily	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	1,775	1,825	23,400	1,785	1,840	23,600
H St: 6th St to 7th St	EB & WB	1,665	1,620	20,800	1,665	1,620	20,800
H St: 10th St to 11th St	EB & WB	1,600	1,600	20,500	1,600	1,600	20,500
H St: 12th St to 13th St	EB & WB	1,615	1,640	21,000	1,585	1,640	21,000
H St: 14th St to Starburst	EB & WB	1,850	2,215	28,400	1,850	2,215	28,400
Benning Rd: Starburst to 16th St	EB & WB	2,495	2,265	29,000	2,495	2,265	29,000
Benning Rd: 17th St to 19th St	EB & WB	2,905	2,800	35,900	2,905	2,800	35,900
Benning Rd: 19th St to 21st St	EB & WB	2,660	2,545	32,600	2,660	2,545	32,600
Benning Rd: 24th St to 26th St	EB & WB	2,650	2,595	33,300	2,650	2,595	33,300
Benning Rd: East of Oklahoma Ave	EB & WB	3,000	2,805	36,000	3,000	2,805	36,000

Scenarios 2d and 2e: 2040 No-Build and 2040 Streetcar

The year 2040 No-Build scenario reflects the forecast traffic growth without any facility improvements beyond signal timing modifications. As a result, the peak direction of travel (westbound in the a.m., eastbound in the p.m.) would experience congestion with queues that would spill back through upstream intersections. The a.m. peak hour would experience side street queues that would occasionally spill back into upstream intersections. During the p.m. peak period, several intersections, including the "Starburst", would have demand that exceeds the available intersection capacity. During the a.m. peak period in Scenario 2d, the Starburst intersection would operate at LOS 'E'. During the p.m. peak period in Scenario 2e, the intersection of H Street/13th Street would operate at LOS 'E'. Queues at the eastbound left-turn lane at the "Starburst" intersection in particular would spill back past 14th Street, hindering traffic flow.

The addition of the streetcar would further limit capacity for westbound vehicles at the "Starburst" intersection due to the queue jump signal phase. As in the 2013 opening year Build scenario, the additional signal phases and streetcar stops would hinder traffic flow. Peak direction congestion would continue to occur.

Table 33 provides a summary of the travel time in seconds for general traffic and streetcar obtained during the year 2040 No-Build and Build scenarios.

Table 33. 2040 Future Year (2d and 2e) Travel Time (in seconds) Summary

Model	Time Period	3rd St to Oklahoma		3rd St to Starburst		Starburst to Oklahoma	
		EB	WB	EB	WB	EB	WB
General Traffic							
2d: No-Build	AM	548	625	388	276	160	349
	PM	428	531	290	327	138	204
2e: Build	AM	697	691	539	315	158	376
	PM	937	488	804	301	133	187
Streetcar							
2e: Build	AM	991	878	746	343	245	535
	PM	1,162	708	891	338	271	370

The summary of the intersection operations for the Future Year (2013) scenarios is shown in Table 34 and Table 35.

Table 34. 2040 Future Year (2d) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	5.3	A	0.40	9.9	A	0.43
H Street/Kaiser Garage	5.8	A	0.38	3.6	A	0.38
H Street/3rd Street	20.4	C	0.79	19.7	B	0.66
H Street/4th Street	25.8	C	0.71	16.6	B	0.68
H Street/6th Street	30.3	C	0.85	15.3	B	0.72
H Street/7th Street	3.5	A	0.60	7.5	A	0.50
H Street/8th Street	14.9	B	0.78	23.1	C	0.74
H Street/9th Street	7.7	A	0.62	5.8	A	0.50
H Street/10th Street	7.2	A	0.67	10.2	B	0.55
H Street/11th Street	12.2	B	0.80	28.6	C	0.72
H Street/12th Street	6	A	0.63	15.1	B	0.55
H Street/13th Street	9.2	A	0.66	33.6	C	0.84
H Street/14th Street	32.5	C	0.83	37.6	D	0.94
Starburst	66.9	E	> 1.0	45.8	D	> 1.0
Maryland Avenue/Bladensburg Road	31.6	C	0.35	12.3	B	0.39
Benning Road/16th Street	18.3	B	0.62	8.6	A	0.59
Benning Road/17th Street	30.5	C	0.94	21.9	C	0.80
Benning Road/19th Street	44.6	D	0.94	5.3	A	0.53
Benning Road/21st Street	27.5	C	0.55	10	A	0.60
Benning Road/24th Street	18.7	B	0.51	3.1	A	0.46
Benning Road/26th Street	9.1	A	0.65	5.7	A	0.56
Benning Road / Oklahoma Avenue	17.1	B	0.61	3.2	A	0.63

Table 35. 2040 Future Year (2e) Intersection Operations Summary

Intersection	AM			PM		
	Delay (s)	LOS	v/c	Delay (s)	LOS	v/c
H Street/Union Street Garage	7.0	A	0.43	33.7	C	0.43
H Street/Kaiser Garage	11.0 (NB)	B (NB)	0.02 (NB)	10.5 (NB)	B (NB)	0.04 (NB)
H Street/3rd Street	22.4	C	0.87	51.5	D	0.73
H Street/4th Street	21.9	C	0.74	39.1	D	0.68
H Street/6th Street	30.6	C	0.87	39.2	D	0.73
H Street/7th Street	11.1	B	0.63	40.0	D	0.50
H Street/8th Street	23.3	C	0.80	52.0	D	0.75
H Street/9th Street	12.1	B	0.64	27.5	C	0.51
H Street/10th Street	16.2	B	0.69	35.6	D	0.57
H Street/11th Street	29.7	C	0.82	40.9	D	0.74
H Street/12th Street	26.5	C	0.65	29.2	C	0.56
H Street/13th Street	61.0	D	0.68	55.3	E	0.85
H Street/14th Street	27.8	C	0.84	50.3	D	0.94
Starburst	46.8	D	> 1.0	23.5	C	> 1.0
Maryland Avenue/Bladensburg Road	12.2	B	0.35	8.5	A	0.37
Benning Road/16th Street	29.7	C	0.62	11.3	B	0.59
Benning Road/17th Street	29.7	C	0.94	20.0	B	0.80
Benning Road/19th Street	47.5	D	0.92	5.4	A	0.52
Benning Road/21st Street	26.5	C	0.59	10.6	B	0.58
Benning Road/24th Street	18.3	B	0.53	2.5	A	0.46
Benning Road/26th Street	9.4	A	0.66	6.0	A	0.56
Benning Road / Oklahoma Avenue	14.6	B	0.62	3.0	A	0.62

Table 36 displays the 95th percentile queue in feet for the approaches for the three selected study intersections during the future year scenarios for both time periods.

Table 36. 2040 Future Year (2d and 2e) 95th Percentile Queuing (feet)

	Approach	AM		PM	
		2d: No-Build	2e: Build	2d: No-Build	2e: Build
H Street/3rd Street	NB	235	240	70	75
	EB	495	610	195	625
	SB	175	280	400	405
	WB	370	405	125	255
Starburst	NB	545	325	330	230
	NEB (Maryland)	1625	860	1640	270
	EB*	270	285	240	120
	SWB (Bladensburg)	225	250	145	130
	WB	475	535	205	145
Benning Road/Oklahoma Avenue	NB	60	250	65	65
	EB	80	70	110	115
	WB	1645	790	55	50

*The listed queue corresponds to the eastbound left turn movement which is the highest for the approach. The queue for the through and right turn movements in the No-Build scenarios are 220 for the a.m. and 220 for the p.m. For the Build scenarios are 220 for the a.m. and 105 for the p.m.

Table 37 shows the a.m. and p.m. peak hour volume and the daily traffic volumes for the 2040 Streetscape scenario for ten locations.

Table 37. 2040 Future Year (2d and 2e) Segment Peak Hour and Daily Traffic Volumes

Segment	Travel Direction	Scenario 2d			Scenario 2e		
		AM	PM	Daily	AM	PM	Daily
H St: Kaiser Garage to 3rd St	EB & WB	2,175	2,110	27,100	2,305	2,140	27,400
H St: 6th St to 7th St	EB & WB	1,945	1,925	24,700	2,145	1,910	24,500
H St: 10th St to 11th St	EB & WB	1,925	1,820	23,300	2,035	1,930	24,700
H St: 12th St to 13th St	EB & WB	2,050	2,205	28,300	2,140	2,255	28,900
H St: 14th St to Starburst	EB & WB	2,440	2,935	37,600	2,500	2,895	37,100
Benning Rd: Starburst to 16th St	EB & WB	3,005	3,090	39,600	3,010	3,100	39,700
Benning Rd: 17th St to 19th St	EB & WB	3,610	3,600	46,200	3,585	3,615	46,300
Benning Rd: 19th St to 21st St	EB & WB	3,155	3,340	42,800	3,260	3,345	42,900
Benning Rd: 24th St to 26th St	EB & WB	3,220	3,225	41,300	3,260	3,225	41,300
Benning Rd: East of Oklahoma Ave	EB & WB	3,580	3,625	46,500	3,570	3,620	46,400

SCENARIO	1A	1B	1C	2A	2B	2C	2D	2E
WEEKDAY AM	65 30 20 / 55 310 30 / LOS=C Del=21.1 V/C=0.49 / 70 1135 45 / 75 50 25	80 30 25 / 80 565 40 / LOS=C Del=21.9 V/C=0.68 / 90 1405 50 / 100 55 40	70 35 35 / 80 535 35 / LOS=C Del=22.1 V/C=0.69 / 85 995 40 / 80 60 40	70 30 20 / 60 325 30 / LOS=B Del=11.5 V/C=0.69 / 75 1195 45 / 80 50 25	70 30 20 / 60 330 30 / LOS=B Del=11.6 V/C=0.69 / 75 1205 45 / 80 50 25	70 30 20 / 60 330 30 / LOS=C Del=20.8 V/C=0.72 / 75 1205 45 / 80 50 25	80 30 25 / 80 515 40 / LOS=C Del=20.4 V/C=0.79 / 80 1360 45 / 100 55 30	80 30 25 / 80 545 40 / LOS=C Del=22.4 V/C=0.87 / 80 1460 45 / 100 55 30
WEEKDAY PM	60 75 60 / 110 985 60 / LOS=B Del=12.4 V/C=0.41 / 40 465 15 / 45 65 25	100 100 90 / 175 1130 65 / LOS=B Del=18.3 V/C=0.62 / 75 735 20 / 35 70 20	85 85 90 / 165 625 45 / LOS=C Del=21.2 V/C=0.54 / 85 425 15 / 20 65 10	65 80 65 / 115 1030 65 / LOS=B Del=15.2 V/C=0.55 / 40 490 15 / 45 70 25	65 80 65 / 115 1040 65 / LOS=B Del=14.2 V/C=0.55 / 40 495 15 / 45 70 25	65 80 65 / 115 1040 65 / LOS=C Del=25.4 V/C=0.58 / 40 495 15 / 45 70 25	90 100 100 / 180 1130 60 / LOS=B Del=19.7 V/C=0.66 / 80 625 15 / 25 55 15	95 100 100 / 180 1120 60 / LOS=D Del=51.5 V/C=0.73 / 80 645 15 / 25 55 15

LEGEND

LOS = INTERSECTION LEVEL OF SERVICE

Del = INTERSECTION AVERAGE CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

H STREET/3RD STREET
SCENARIO OPERATIONS
WASHINGTON, DC

FIGURE 9

SCENARIO	1A	1B	1C	2A	2B	2C	2D	2E
WEEKDAY AM	235 535 / 115 460 10 → LOS=B Del=19.2 V/C=0.65 ← 65 1755 / 150 45 → 170 40	90 675 / 205 605 25 → LOS=E Del=68.8 V/C=>1.0 ← 235 2195 / 325 70 → 355 65	230 635 / 210 605 35 → LOS=D Del=53.8 V/C=>1.0 ← 60 1970 / 335 65 → 375 60	300 555 / 120 480 10 → LOS=C Del=24.4 V/C=0.67 ← 70 1840 / 155 45 → 175 40	300 560 / 120 485 10 → LOS=C Del=24.9 V/C=0.68 ← 70 1855 / 155 45 → 180 40	300 560 / 120 485 10 → LOS=C Del=27.3 V/C=0.77 ← 70 1855 / 155 45 → 180 40	100 670 / 190 600 40 → LOS=E Del=66.9 V/C=1.00 ← 110 2160 / 325 75 → 355 60	105 670 / 195 595 40 → LOS=D Del=46.8 V/C=>1.0 ← 110 2165 / 330 75 → 360 65
WEEKDAY PM	160 280 / 335 1355 10 → LOS=C Del=26.1 V/C=0.88 ← 95 590 / 325 65 → 265 45	210 400 / 245 2110 5 → LOS=D Del=49.9 V/C=>1.0 ← 155 980 / 470 95 → 350 65	165 405 / 370 1595 20 → LOS=E Del=60.7 V/C=>1.0 ← 100 960 / 435 90 → 310 50	165 295 / 350 1420 10 → LOS=C Del=26.3 V/C=0.95 ← 95 620 / 340 70 → 280 45	165 300 / 355 1430 10 → LOS=C Del=20.8 V/C=0.96 ← 95 625 / 345 70 → 280 45	165 300 / 355 1430 10 → LOS=B Del=15.9 V/C=>1.0 ← 95 625 / 345 70 → 280 45	195 410 / 275 1870 15 → LOS=D Del=45.8 V/C=>1.0 ← 90 980 / 460 95 → 325 55	170 415 / 260 1845 15 → LOS=C Del=23.5 V/C=>1.0 ← 90 985 / 400 105 → 330 75

LEGEND

LOS = INTERSECTION LEVEL OF SERVICE

Del = INTERSECTION AVERAGE CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

STARBURST
SCENARIO OPERATIONS
WASHINGTON, DC

FIGURE 10

SCENARIO	1A	1B	1C	2A	2B	2C	2D	2E
WEEKDAY AM	660 → 30 ↘ LOS=A Del=5.8 V/C=0.54 ← 2025 ↙ 120 45 ↖ 35	975 → 35 ↘ LOS=A Del=6.6 V/C=0.63 ← 2465 ↙ 120 50 ↖ 40	975 → 30 ↘ LOS=A Del=2.7 V/C=0.58 ← 2345 ↙ 125 5 ↖ 5	695 → 30 ↘ LOS=A Del=5.6 V/C=0.57 ← 2125 ↙ 125 45 ↖ 35	700 → 30 ↘ LOS=A Del=5.7 V/C=0.58 ← 2140 ↙ 125 45 ↖ 35	700 → 30 ↘ LOS=A Del=4.4 V/C=0.60 ← 2140 ↙ 125 45 ↖ 35	965 → 30 ↘ LOS=B Del=17.1 V/C=0.61 ← 2460 ↙ 115 45 ↖ 40	965 → 30 ↘ LOS=B Del=14.6 V/C=0.62 ← 2460 ↙ 110 40 ↖ 35
WEEKDAY PM	1685 → 50 ↘ LOS=A Del=4.6 V/C=0.39 ← 815 ↙ 55 40 ↖ 100	2120 → 50 ↘ LOS=A Del=3.5 V/C=0.45 ← 1335 ↙ 105 25 ↖ 100	1930 → 10 ↘ LOS=A Del=9.0 V/C=0.61 ← 1250 ↙ 35 25 ↖ 160	1765 → 55 ↘ LOS=A Del=2.8 V/C=0.55 ← 855 ↙ 60 40 ↖ 105	1780 → 55 ↘ LOS=A Del=2.8 V/C=0.56 ← 860 ↙ 60 40 ↖ 105	1780 → 55 ↘ LOS=A Del=3.1 V/C=0.56 ← 860 ↙ 60 40 ↖ 105	2100 → 45 ↘ LOS=A Del=3.2 V/C=0.63 ← 1345 ↙ 75 35 ↖ 105	2085 → 45 ↘ LOS=A Del=3.0 V/C=0.62 ← 1355 ↙ 75 35 ↖ 105

LEGEND

LOS = INTERSECTION LEVEL OF SERVICE

Del = INTERSECTION AVERAGE CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

BENNING ROAD/OKLAHOMA AVENUE
SCENARIO OPERATIONS
WASHINGTON, DC

FIGURE 11

Section 7
Conclusions and Recommendations

CONCLUSIONS

This section discusses the conclusions that can be drawn from the results for all modeled alternatives, and focus on the operation at three representative intersections in the study area.

H Street/3rd Street and Western Terminus

For all modeled scenarios at this location, for both the streetscape and streetcar projects, without and without the inclusion of the streetcar, this intersection performs at or better than LOS 'D'. Varying scenarios produce slightly degraded results based on increases in traffic volumes or the inclusion of streetcar traffic. This is expected due to changes in travel demand in the corridor, yet the impacts do not exceed the jurisdictional standard. Volume-to-capacity ratios do not exceed 1.0 at this location, for any of the scenarios.

Signal timing for future year scenarios, including those with the streetcar, would be able to remain at 100-second cycles, and can accommodate streetcars running at 10-minute headways during the peak a.m. and p.m. hours during the day. This cycle length would be similar to other intersections in the corridor and would allow for continued coordinated operations and vehicle progression in either direction, depending on the time of day.

Westbound streetcars that reach this location and continue through the intersection up onto the Hopscotch Bridge to reach the reversing point are able to do without significant impact to intersection operations.

Starburst

The year 2012 existing conditions and year 2013 opening year streetcar scenarios (with and without the streetcar) appear to accommodate traffic within LOS 'D'. By the year 2040, for the No-Build scenario, traffic congestion increases on the network as demand grows. Intersection operational results during the a.m. peak hour at the Starburst intersection for Scenario 2d would exceed LOS 'D'. However, the p.m. results indicate that operations at the Starburst intersection would be at LOS 'D'.

The addition of the streetcar and revision of the signal timing and phasing parameters at this location would appear to improve traffic operations to within acceptable standards, with the a.m. peak period operating at LOS 'D' and the p.m. peak hour operating at LOS 'C'. It would seem likely that No-Build conditions could be improved as well, though this would mainly help travelers along the H Street/Benning east-west corridor at the expense of movement on Bladensburg, Maryland Avenue, and 15th Street. This creates the possibility, along with signal retiming elsewhere in the corridor, for an examination of the opportunities to improve traffic flow by adjusting timing parameters.

Ultimately, the conclusion at this location is that there would be no significant impact to traffic operations when compared to the No-Build (or otherwise) with the addition of the streetcar onto the H Street/Benning Road corridor.

For the streetscape scenarios, it would appear as if the reduction in cross-sectional width in the corridor would have a negative effect on traffic operations at the study intersections. This is seen by comparing the results of scenarios 1b with 1c. However, the results are less clear based on the outputs from the Synchro model. Given the detail required by VISSIM in terms of modeling the streetcar operations and the ability of the software to mimic actual signal controller operations, VISSIM presents a superior method of analysis when mixed-flow conditions such as those that would exist on the corridor occur.

Technically, the results for scenarios 1c and 2e should be much closer than they resulted. Both of these scenarios contain the same set of future conditions. Though both sets of traffic volumes were developed with the NCHRP 255 process, the existing conditions travel demand model was different. This was because the base condition that was modeled was a 6- and 8-lane configuration with the streetscape scenario (1c) and a 4- and 6-lane configuration with the streetcar scenario (2e). These different starting points may have resulted in divergent results.

Based on engineering judgment, it would be best to use the results from the modeling work to develop volumes for the 2e scenario for the modeling work for the streetscape scenario 1c. Additionally, VISSIM would be the most appropriate tool to model the scenario 1c. Based on the results from scenario 2e, this would indicate that the reduction in cross-sectional width and the addition of the streetcar in streetscape scenario 1c would result in traffic operations that meet LOS ‘D’. Therefore, there would not be a significant impact in scenario 1c.

Benning Road/Oklahoma Avenue

For all modeled scenarios at this location, for both the streetscape and streetcar projects, without and without the inclusion of the streetcar, this intersection performs at or better than LOS ‘D’. Varying scenarios produce slightly degraded results based on increases in traffic volumes or the inclusion of streetcar traffic. This is expected due to changes in travel demand in the corridor, yet the impacts do not exceed the jurisdictional standard. Volume-to-capacity ratios do not exceed 1.0 at this location, for any of the scenarios.

Signal timing for future year scenarios, including those with the streetcar, would be able to remain at 100-second cycles, and can accommodate streetcars running at 10-minute headways during the peak a.m. and p.m. hours during the day. This cycle length would be similar to other intersections in the corridor and would allow for continued coordinated operations and vehicle progression in either direction, depending on the time of day.

Streetcars that access the route reversal point east of this intersection or those that travel to and from the maintenance yard would not have a significant impact on traffic operations on Benning Road.

Streetcar and Signal Operations

The results of the analysis as they affect both streetcar and signal operations in the project corridor are discussed earlier in this report. Overall, the following conclusions may be made:

- Cycle lengths in the corridor can remain at 100 seconds.
- Streetcar operations at the four locations that require special requirements for the signal controllers are able to be accommodated.
- Streetcar operations within the right-of-way have some effect on overall traffic operations in the project area but do not appear to create congestion that would exceed LOS 'D', except at H Street/13the Street during the p.m. peak hour in Scenario 2e.
- The scenarios with the streetcar appear to improve operations over the No-Build cases because the improvements made to the timing and phasing plans optimize conditions at specific locations.
- Cross-section reductions as part of the streetscape project have a small, negative effect on intersection operations. However, the grid network in Washington, DC, according to the results from the MWCOG travel demand model, appears to be able to reroute traffic on many different routes to reduce and spread congestion out at multiple locations.

Appendix 1
Traffic Count Data

Type of peak hour being reported: Intersection Peak

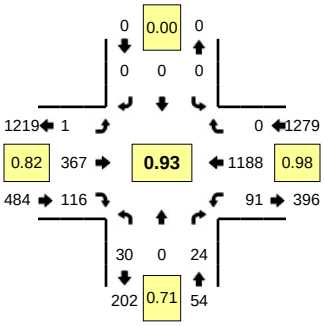
Method for determining peak hour: Total Entering Volume

LOCATION: 1st St NE -- H St

QC JOB #: 10786149

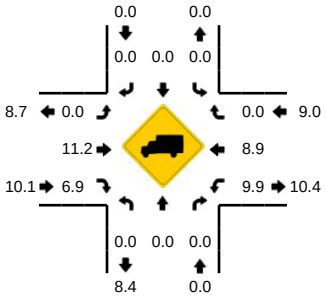
CITY/STATE: Washington, DC

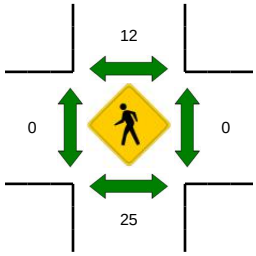
DATE: Wed, Jul 18 2012

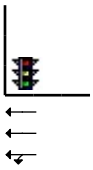


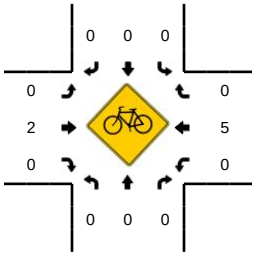
Peak-Hour: 7:30 AM -- 8:30 AM

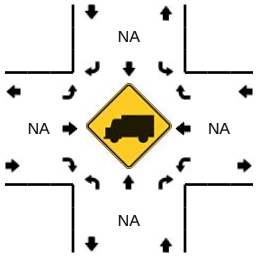
Peak 15-Min: 8:00 AM -- 8:15 AM

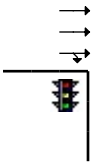


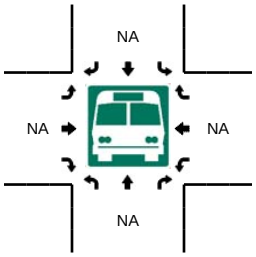












15-Min Count Period Beginning At	1st St NE (Northbound)				1st St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	6	0	1	0	0	0	0	0	0	80	38	0	15	301	0	1	442	
7:45 AM	7	0	5	0	0	0	0	0	0	82	25	1	18	298	0	1	437	
8:00 AM	6	0	10	0	0	0	0	0	0	112	36	0	20	306	0	1	491	
8:15 AM	11	0	8	0	0	0	0	0	0	93	17	0	33	283	0	2	447	1817

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	0	40	0	0	0	0	0	0	448	144	0	80	1224	0	4	1964
Heavy Trucks	0	0	0		0	0	0		0	40	8		16	96	0		160
Pedestrians		28				12				0				0			40
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

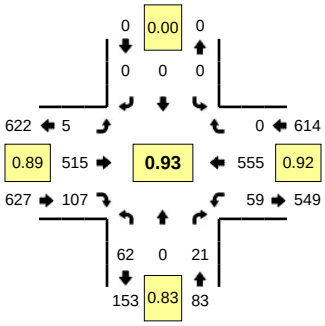
Method for determining peak hour: Total Entering Volume

LOCATION: 1st St NE -- H St

CITY/STATE: Washington, DC

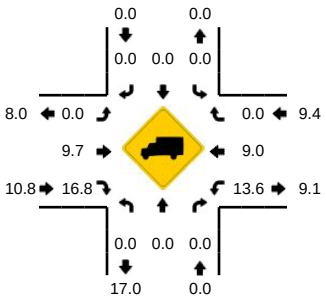
QC JOB #: 10786150

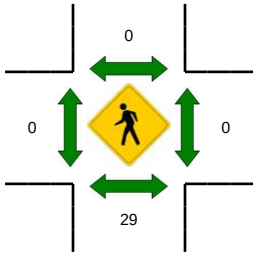
DATE: Wed, Jul 18 2012

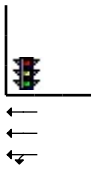


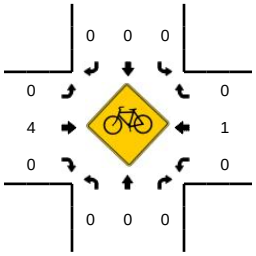
Peak-Hour: 12:00 PM -- 1:00 PM

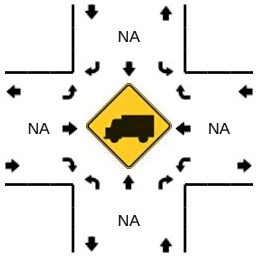
Peak 15-Min: 12:45 PM -- 1:00 PM

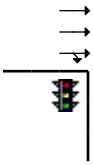


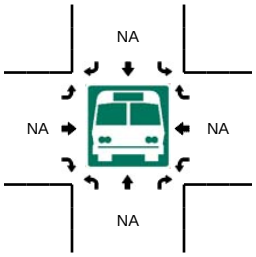












15-Min Count Period Beginning At	1st St NE (Northbound)				1st St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	15	0	5	0	0	0	0	0	0	133	19	1	13	133	0	1	320	
12:15 PM	14	0	4	0	0	0	0	0	0	129	32	1	6	136	0	4	326	
12:30 PM	12	0	8	0	0	0	0	0	0	107	25	3	11	151	0	5	322	
12:45 PM	21	0	4	0	0	0	0	0	0	146	31	0	16	135	0	3	356	1324

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	84	0	16	0	0	0	0	0	0	584	124	0	64	540	0	12	1424
Heavy Trucks	0	0	0		0	0	0		0	32	12		4	40	0		88
Pedestrians		36				0				0				0			36
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

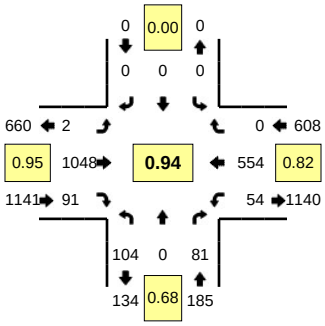
Method for determining peak hour: Total Entering Volume

LOCATION: 1st St NE -- H St

QC JOB #: 10786151

CITY/STATE: Washington, DC

DATE: Wed, Jul 18 2012



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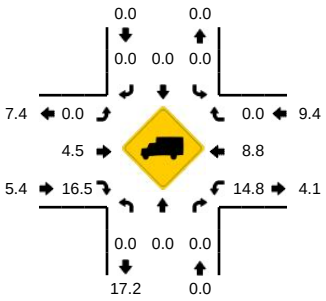
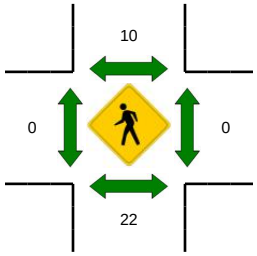
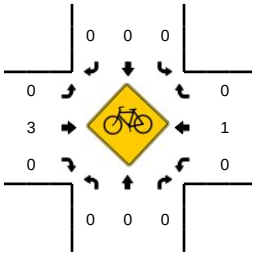
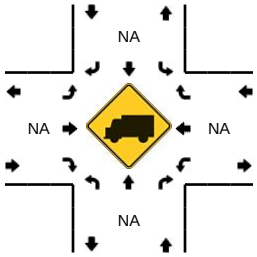
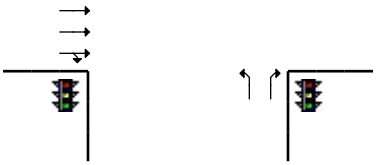
Peak 15-Min: 4:30 PM -- 4:45 PM

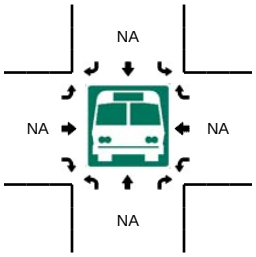












15-Min Count Period Beginning At	1st St NE (Northbound)				1st St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	47	0	21	0	0	0	0	0	0	239	21	2	8	127	0	2	467	
4:15 PM	22	0	23	0	0	0	0	0	0	261	28	0	11	133	0	2	480	
4:30 PM	16	0	16	0	0	0	0	0	0	280	19	0	12	171	0	2	516	
4:45 PM	19	0	21	0	0	0	0	0	0	268	23	0	12	123	0	5	471	1934

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	0	64	0	0	0	0	0	0	1120	76	0	48	684	0	8	2064
Heavy Trucks	0	0	0		0	0	0		0	36	8		8	68	0		120
Pedestrians		28				16				0				0			44
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

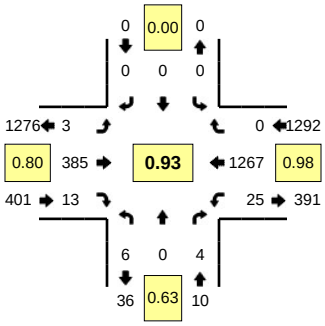
Method for determining peak hour: Total Entering Volume

LOCATION: 2nd St NE -- H St

QC JOB #: 10786146

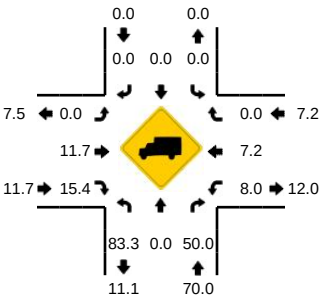
CITY/STATE: Washington, DC

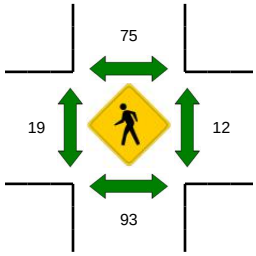
DATE: Wed, Jul 18 2012

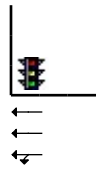


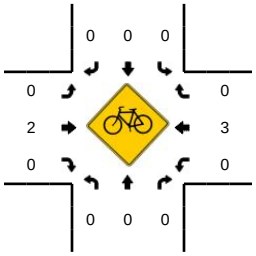
Peak-Hour: 7:30 AM -- 8:30 AM

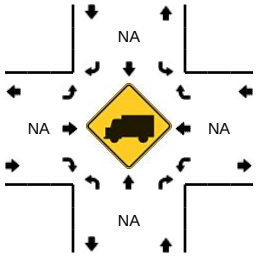
Peak 15-Min: 8:00 AM -- 8:15 AM

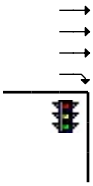


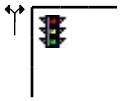


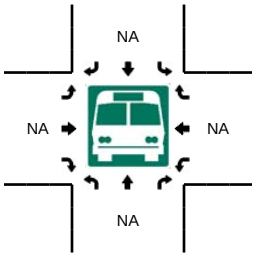












15-Min Count Period Beginning At	2nd St NE (Northbound)				2nd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	3	0	1	0	0	0	0	0	0	86	1	0	8	306	0	0	405	
7:45 AM	0	0	1	0	0	0	0	0	0	81	3	1	3	326	0	1	416	
8:00 AM	2	0	1	0	0	0	0	0	0	118	7	1	6	324	0	1	460	
8:15 AM	1	0	1	0	0	0	0	0	0	100	2	1	6	311	0	0	422	1703

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	4	0	0	0	0	0	0	472	28	4	24	1296	0	4	1840
Heavy Trucks	4	0	0		0	0	0		0	40	4		0	76	0		124
Pedestrians		104				76				8				8			196
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

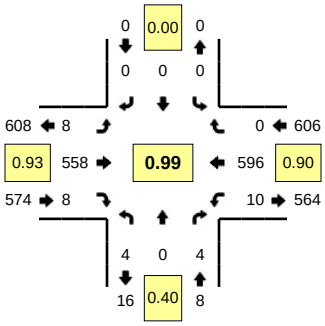
Method for determining peak hour: Total Entering Volume

LOCATION: 2nd St NE -- H St

CITY/STATE: Washington, DC

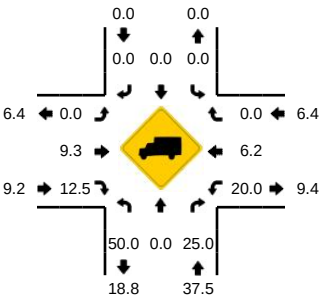
QC JOB #: 10786147

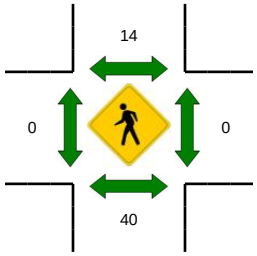
DATE: Wed, Jul 18 2012

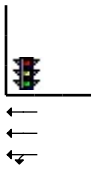


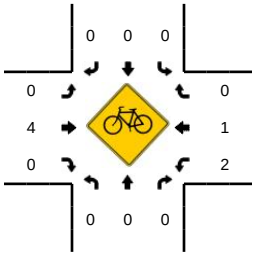
Peak-Hour: 12:00 PM -- 1:00 PM

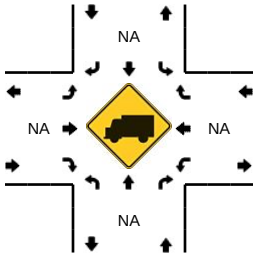
Peak 15-Min: 12:30 PM -- 12:45 PM

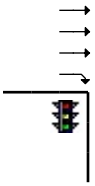


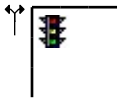


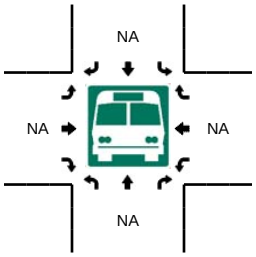












15-Min Count Period Beginning At	2nd St NE (Northbound)				2nd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	1	0	0	0	0	0	0	0	0	141	0	4	2	142	0	0	290	
12:15 PM	1	0	4	0	0	0	0	0	0	140	1	2	1	145	0	2	296	
12:30 PM	1	0	0	0	0	0	0	0	0	124	6	1	2	167	0	0	301	
12:45 PM	1	0	0	0	0	0	0	0	0	153	1	1	3	142	0	0	301	1188

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	0	0	0	0	0	0	0	496	24	4	8	668	0	0	1204
Heavy Trucks	0	0	0		0	0	0		0	64	0		0	36	0		100
Pedestrians		52				12				0				0			64
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

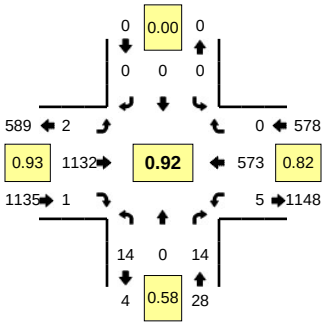
Method for determining peak hour: Total Entering Volume

LOCATION: 2nd St NE -- H St

QC JOB #: 10786148

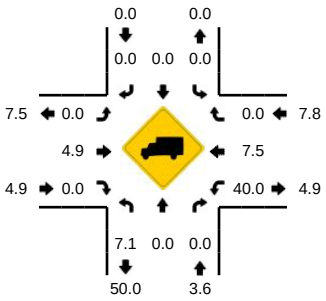
CITY/STATE: Washington, DC

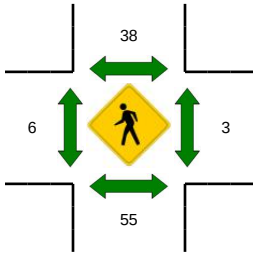
DATE: Wed, Jul 18 2012

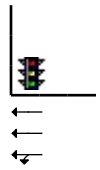


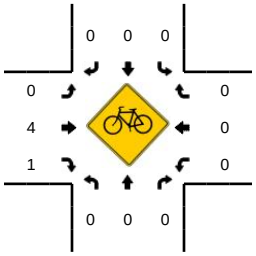
Peak-Hour: 4:00 PM -- 5:00 PM

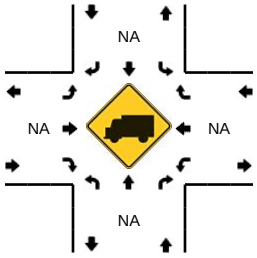
Peak 15-Min: 4:30 PM -- 4:45 PM

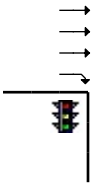


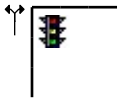


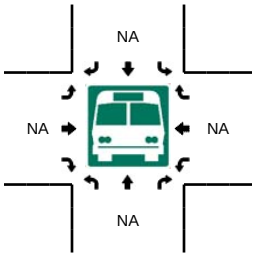












15-Min Count Period Beginning At	2nd St NE (Northbound)				2nd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	4	0	0	0	0	0	0	245	0	1	1	137	0	0	391	
4:15 PM	3	0	3	0	0	0	0	0	0	304	1	0	1	137	0	0	449	
4:30 PM	6	0	6	0	0	0	0	0	0	284	0	1	1	174	0	2	474	
4:45 PM	2	0	1	0	0	0	0	0	0	299	0	0	0	125	0	0	427	1741

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	0	24	0	0	0	0	0	0	1136	0	4	4	696	0	8	1896
Heavy Trucks	4	0	0		0	0	0		0	44	0		4	56	0		108
Pedestrians		72				36				8				4			120
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

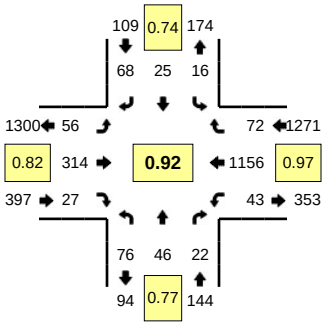
Method for determining peak hour: Total Entering Volume

LOCATION: 3rd St NE -- H St

QC JOB #: 10786143

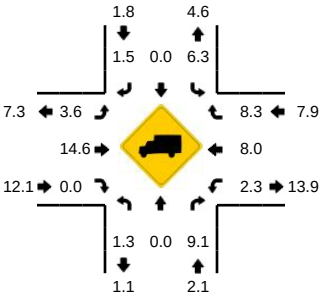
CITY/STATE: Washington, DC

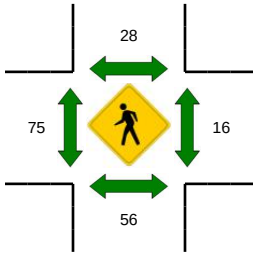
DATE: Wed, Jul 18 2012

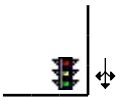


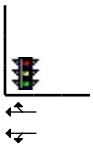
Peak-Hour: 7:30 AM -- 8:30 AM

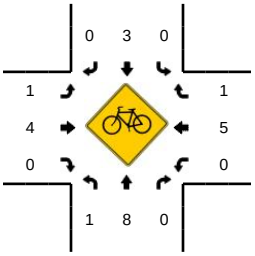
Peak 15-Min: 8:00 AM -- 8:15 AM

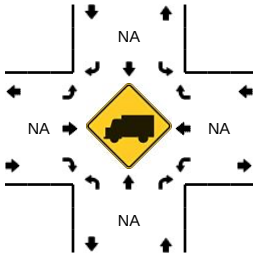


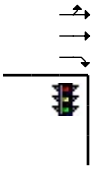


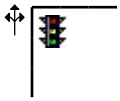


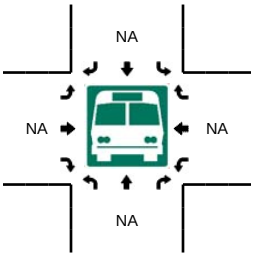












15-Min Count Period Beginning At	3rd St NE (Northbound)				3rd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	12	14	5	0	4	3	16	0	14	68	3	0	9	290	25	0	463	
7:45 AM	16	13	7	0	0	6	13	0	17	67	3	0	10	287	20	0	459	
8:00 AM	30	10	7	0	7	10	13	0	12	94	15	0	14	296	15	1	524	
8:15 AM	18	9	3	0	5	6	26	0	13	85	6	0	9	283	12	0	475	1921

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	120	40	28	0	28	40	52	0	48	376	60	0	56	1184	60	4	2096
Heavy Trucks	4	0	0		4	0	0		4	40	0		0	84	4		140
Pedestrians		80				28				76				28			212
Bicycles	0	3	0		0	0	0		0	3	0		0	1	1		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

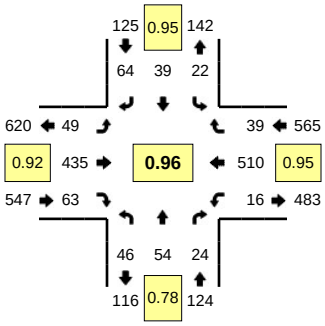
Method for determining peak hour: Total Entering Volume

LOCATION: 3rd St NE -- H St

QC JOB #: 10786144

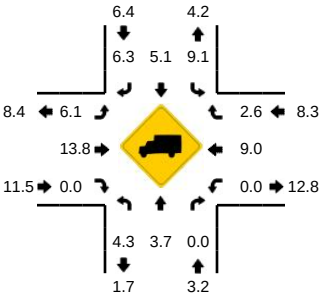
CITY/STATE: Washington, DC

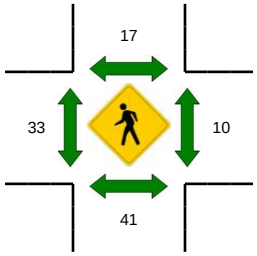
DATE: Wed, Jul 18 2012

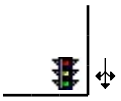


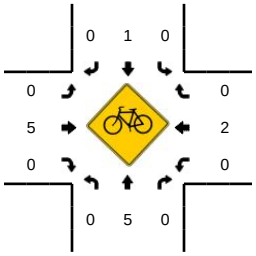
Peak-Hour: 12:00 PM -- 1:00 PM

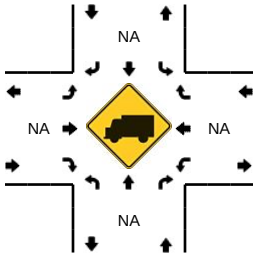
Peak 15-Min: 12:15 PM -- 12:30 PM

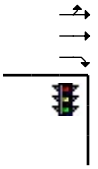


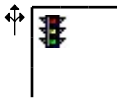


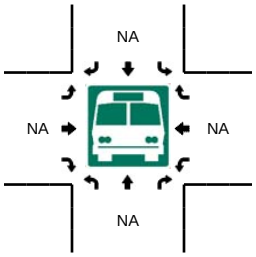












15-Min Count Period Beginning At	3rd St NE (Northbound)				3rd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	6	13	11	0	8	10	10	0	15	111	10	0	7	133	8	0	342	
12:15 PM	16	19	5	0	2	14	17	0	13	108	21	0	4	123	11	1	354	
12:30 PM	7	12	7	0	9	7	16	0	11	97	12	0	0	130	8	1	317	
12:45 PM	17	10	1	0	3	8	21	0	10	119	20	0	3	124	12	0	348	1361

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	76	20	0	8	56	68	0	52	432	84	0	16	492	44	4	1416
Heavy Trucks	0	4	0		0	0	0		4	68	0		0	52	4		132
Pedestrians		28				16				48				12			104
Bicycles	0	1	0		0	0	0		0	2	0		0	1	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

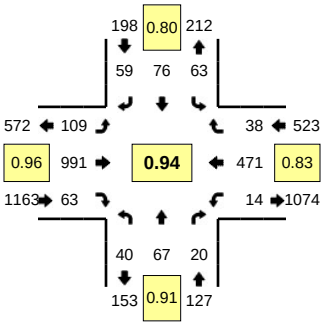
Method for determining peak hour: Total Entering Volume

LOCATION: 3rd St NE -- H St

QC JOB #: 10786145

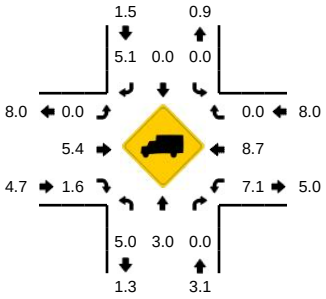
CITY/STATE: Washington, DC

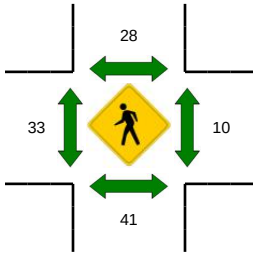
DATE: Wed, Jul 18 2012

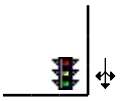


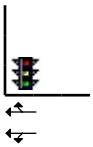
Peak-Hour: 4:00 PM -- 5:00 PM

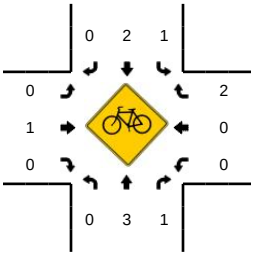
Peak 15-Min: 4:30 PM -- 4:45 PM

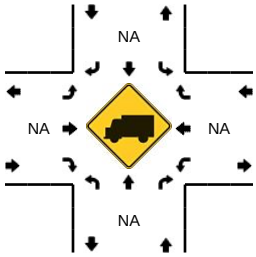


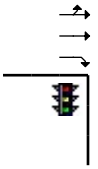


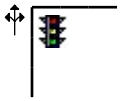


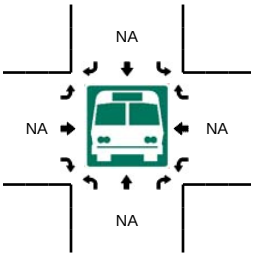












15-Min Count Period Beginning At	3rd St NE (Northbound)				3rd St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	14	12	0	16	26	20	0	26	227	20	0	4	101	15	0	490	
4:15 PM	9	20	0	0	13	14	12	0	33	236	18	0	2	124	11	0	492	
4:30 PM	12	14	3	0	13	18	14	0	25	266	11	2	2	147	9	0	536	
4:45 PM	10	19	5	0	21	18	13	0	23	262	14	0	6	99	3	0	493	2011

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	56	12	0	52	72	56	0	100	1064	44	8	8	588	36	0	2144
Heavy Trucks	0	4	0		0	0	0		0	48	0		0	52	0		104
Pedestrians		28				24				48				16			116
Bicycles	0	2	0		1	0	0		0	1	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

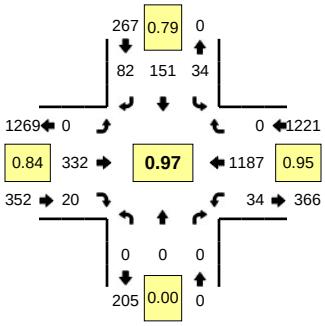
Report generated on 7/24/2012 2:25 PM

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

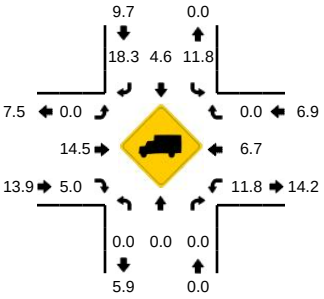
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

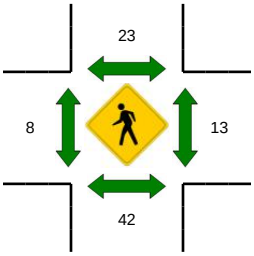
LOCATION: 4th St NE -- H St | **QC JOB #:** 10786140

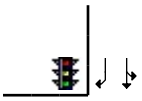
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

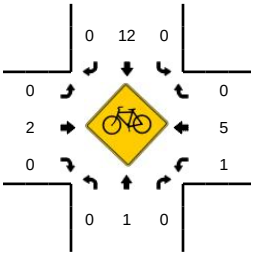


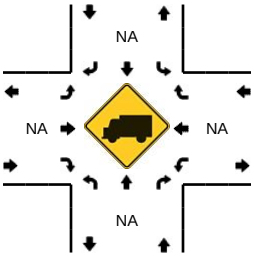
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

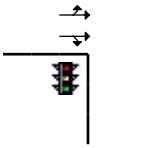


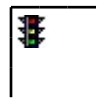


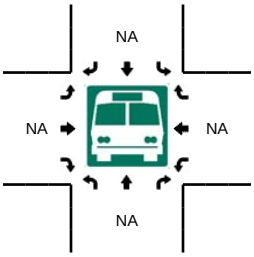












15-Min Count Period Beginning At	4th St NE (Northbound)				4th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	0	0	0	0	10	37	16	0	0	74	5	0	7	315	0	0	464	
7:45 AM	0	0	0	0	5	35	18	0	0	69	4	0	4	300	0	0	435	
8:00 AM	0	0	0	0	8	32	22	0	0	98	7	0	10	295	0	0	472	
8:15 AM	0	0	0	0	11	47	26	0	0	91	4	0	13	277	0	0	469	1840

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	32	128	88	0	0	392	28	0	40	1180	0	0	1888
Heavy Trucks	0	0	0		0	8	20		0	44	0		8	72	0		152
Pedestrians		72				28				20				24			144
Bicycles	0	1	0		0	3	0		0	1	0		1	1	0		7
Railroad																	
Stopped Buses																	

Comments:

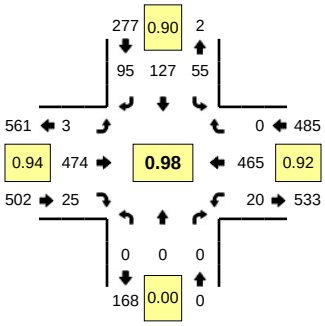
Report generated on 7/24/2012 2:25 PM

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

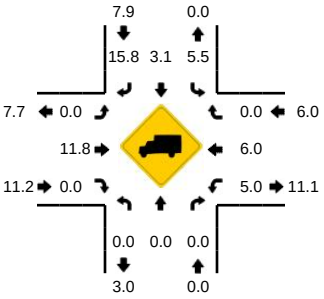
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

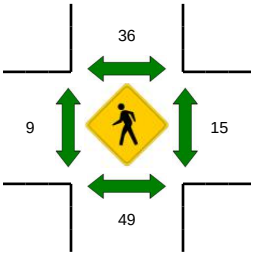
LOCATION: 4th St NE -- H St
CITY/STATE: Washington, DC

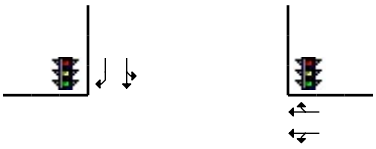
QC JOB #: 10786141
DATE: Wed, Jul 18 2012

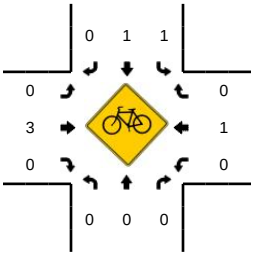


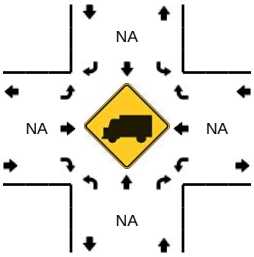
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:15 PM -- 12:30 PM

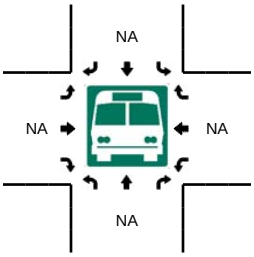












15-Min Count Period Beginning At	4th St NE (Northbound)				4th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	0	0	0	0	8	26	24	0	1	119	13	0	7	124	0	1	323	
12:15 PM	0	0	0	0	18	39	20	0	1	122	3	0	5	115	0	1	324	
12:30 PM	0	0	0	0	14	31	29	0	0	109	5	0	2	113	0	1	304	
12:45 PM	0	0	0	0	15	31	22	0	0	124	4	1	2	113	0	1	313	1264

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	72	156	80	0	4	488	12	0	20	460	0	4	1296
Heavy Trucks	0	0	0		0	4	20		0	64	0		4	28	0		120
Pedestrians		28				32				4				12			76
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

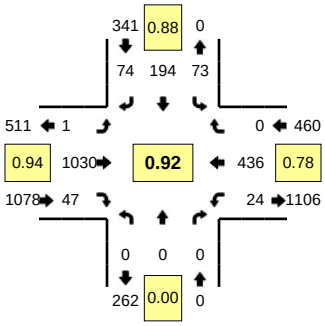
Method for determining peak hour: Total Entering Volume

LOCATION: 4th St NE -- H St

CITY/STATE: Washington, DC

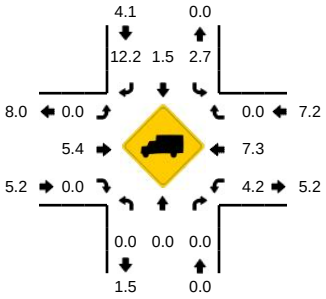
QC JOB #: 10786142

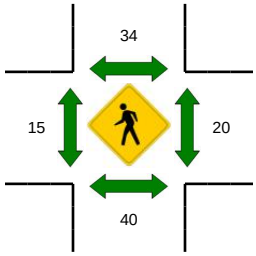
DATE: Wed, Jul 18 2012

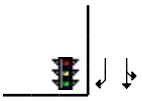


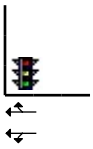
Peak-Hour: 4:00 PM -- 5:00 PM

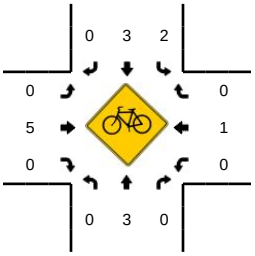
Peak 15-Min: 4:30 PM -- 4:45 PM

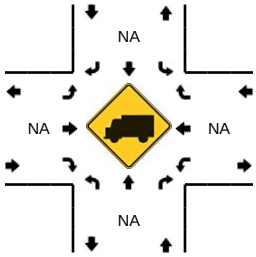


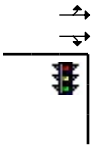


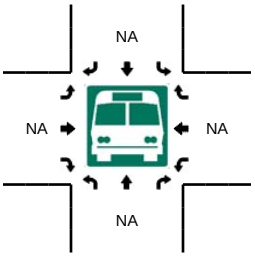












15-Min Count Period Beginning At	4th St NE (Northbound)				4th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	15	43	19	0	0	242	12	0	1	102	0	0	434	
4:15 PM	0	0	0	0	19	50	28	0	0	241	10	1	6	102	0	3	460	
4:30 PM	0	0	0	0	18	44	17	0	0	276	9	0	7	140	0	0	511	
4:45 PM	0	0	0	0	21	57	10	0	0	271	16	0	7	92	0	0	474	1879

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	72	176	68	0	0	1104	36	0	28	560	0	0	2044
Heavy Trucks	0	0	0		4	4	12		0	52	0		4	36	0		112
Pedestrians		40				36				8				8			92
Bicycles	0	1	0		1	0	0		0	2	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

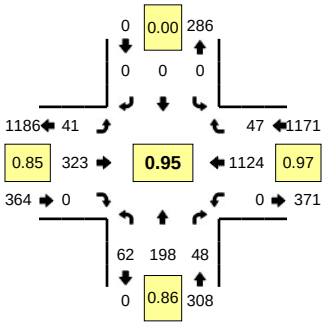
Method for determining peak hour: Total Entering Volume

LOCATION: 6th St NE -- H St

QC JOB #: 10786131

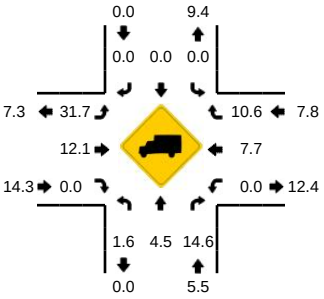
CITY/STATE: Washington, DC

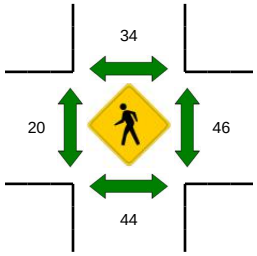
DATE: Wed, Jul 18 2012

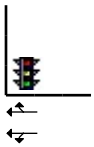


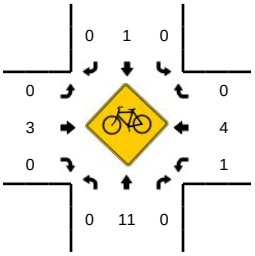
Peak-Hour: 7:30 AM -- 8:30 AM

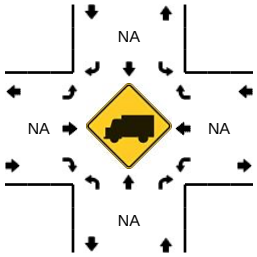
Peak 15-Min: 8:00 AM -- 8:15 AM

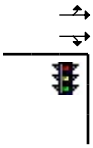


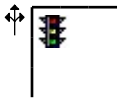


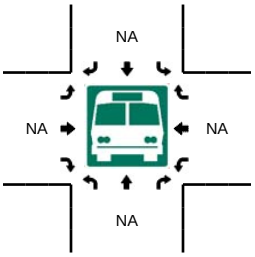












15-Min Count Period Beginning At	6th St NE (Northbound)				6th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	14	42	9	0	0	0	0	0	10	79	0	0	0	292	6	0	452	
7:45 AM	17	47	12	0	0	0	0	0	8	68	0	0	0	267	13	0	432	
8:00 AM	17	44	16	0	0	0	0	0	10	97	0	0	0	288	15	0	487	
8:15 AM	14	65	11	0	0	0	0	0	13	79	0	0	0	277	13	0	472	1843

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	176	64	0	0	0	0	0	40	388	0	0	0	1152	60	0	1948
Heavy Trucks	0	8	8		0	0	0		12	24	0		0	80	8		140
Pedestrians		36				16				8				36			96
Bicycles	0	4	0		0	0	0		0	2	0		0	0	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

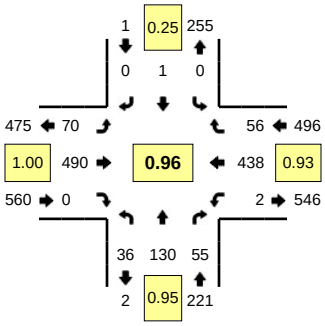
Method for determining peak hour: Total Entering Volume

LOCATION: 6th St NE -- H St

QC JOB #: 10786132

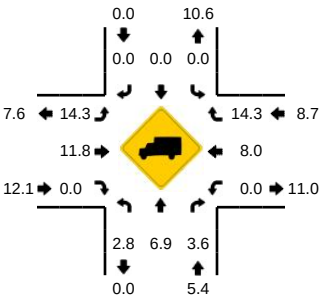
CITY/STATE: Washington, DC

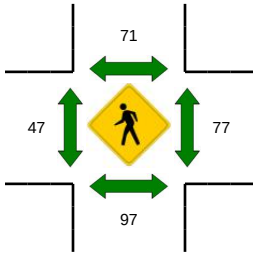
DATE: Wed, Jul 18 2012

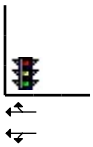


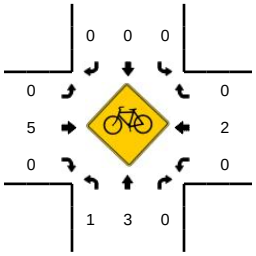
Peak-Hour: 12:00 PM -- 1:00 PM

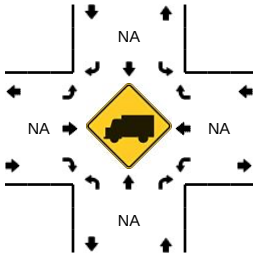
Peak 15-Min: 12:00 PM -- 12:15 PM

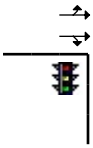


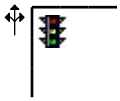


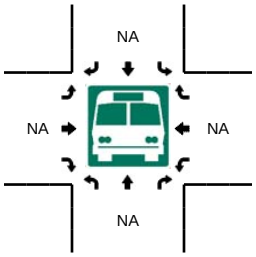












15-Min Count Period Beginning At	6th St NE (Northbound)				6th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	10	36	12	0	0	1	0	0	18	122	0	0	0	121	12	0	332	
12:15 PM	7	32	11	0	0	0	0	0	17	122	0	1	0	109	17	0	316	
12:30 PM	9	36	11	0	0	0	0	0	18	122	0	0	1	106	11	1	315	
12:45 PM	10	26	21	0	0	0	0	0	16	124	0	0	0	102	16	0	315	1278

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	144	48	0	0	4	0	0	72	488	0	0	0	484	48	0	1328
Heavy Trucks	0	12	0		0	0	0		0	72	0		0	56	8		148
Pedestrians		68				32				40				52			192
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

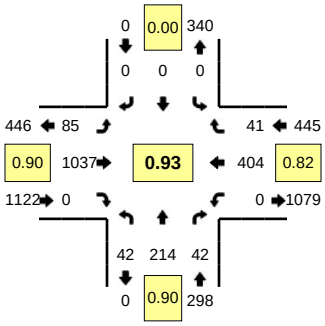
Report generated on 7/24/2012 2:25 PM

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

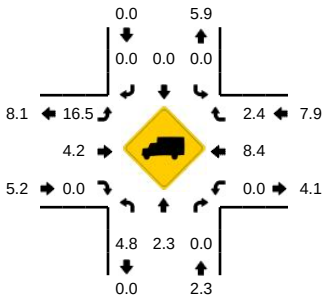
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

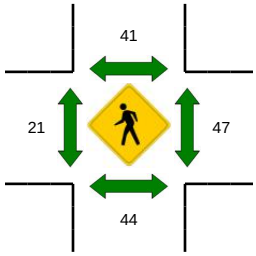
LOCATION: 6th St NE -- H St | **QC JOB #:** 10786133

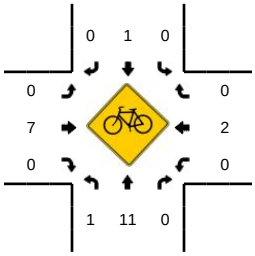
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

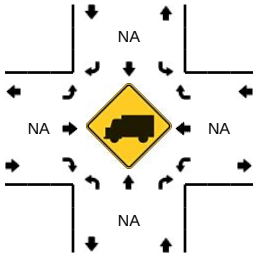


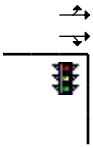
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:30 PM -- 4:45 PM

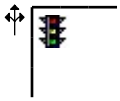


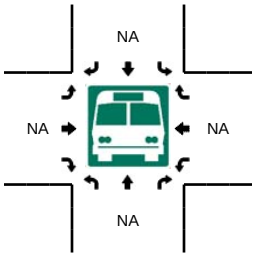












15-Min Count Period Beginning At	6th St NE (Northbound)				6th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	63	8	0	0	0	0	0	15	235	0	0	0	95	12	0	436	
4:15 PM	10	38	13	0	0	0	0	0	21	255	0	0	0	94	8	0	439	
4:30 PM	14	57	12	0	0	0	0	0	25	261	0	0	0	121	14	0	504	
4:45 PM	10	56	9	0	0	0	0	0	24	286	0	0	0	94	7	0	486	1865

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	228	48	0	0	0	0	0	100	1044	0	0	0	484	56	0	2016
Heavy Trucks	4	4	0		0	0	0		4	48	0		0	36	0		96
Pedestrians		32				48				16				64			160
Bicycles	1	6	0		0	1	0		0	2	0		0	0	0		10
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

Type of peak hour being reported: Intersection Peak

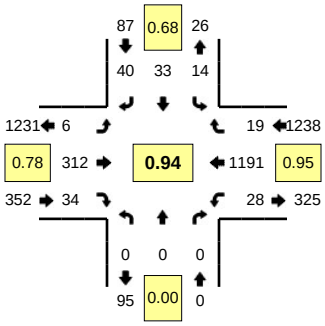
Method for determining peak hour: Total Entering Volume

LOCATION: 7th St NE -- H St

QC JOB #: 10786128

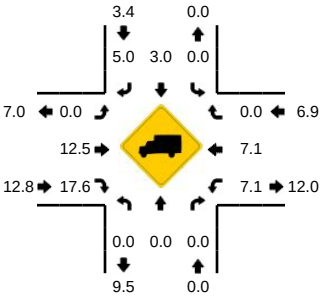
CITY/STATE: Washington, DC

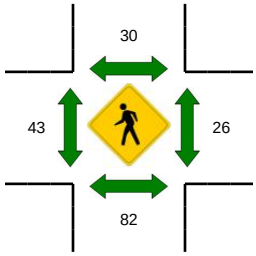
DATE: Wed, Jul 18 2012

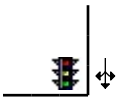


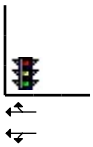
Peak-Hour: 7:30 AM -- 8:30 AM

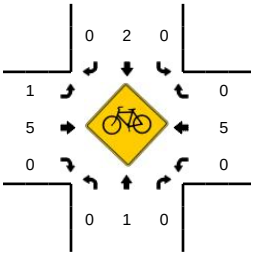
Peak 15-Min: 8:00 AM -- 8:15 AM

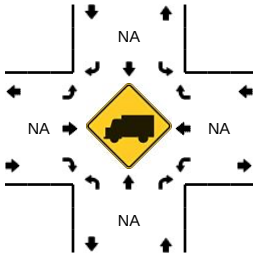


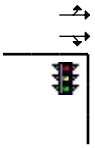


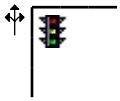


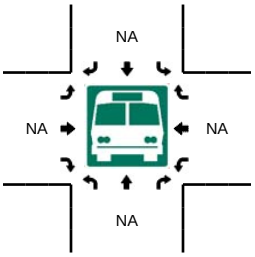












15-Min Count Period Beginning At	7th St NE (Northbound)				7th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	0	0	0	0	6	7	3	0	0	63	12	0	6	286	2	0	385	
7:45 AM	0	0	0	0	3	7	10	0	1	67	9	0	9	306	5	0	417	
8:00 AM	0	0	0	0	2	12	17	1	2	102	9	0	3	289	7	0	444	
8:15 AM	0	0	0	0	2	7	10	0	3	80	4	0	10	310	5	0	431	1677

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	8	48	68	4	8	408	36	0	12	1156	28	0	1776
Heavy Trucks	0	0	0		0	4	4		0	36	0		0	80	0		124
Pedestrians		120				40				48				28			236
Bicycles	0	0	0		0	2	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

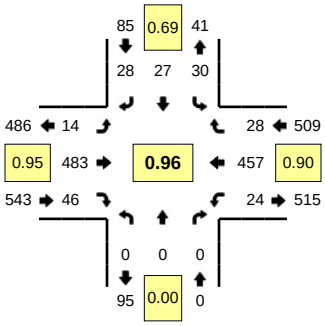
Method for determining peak hour: Total Entering Volume

LOCATION: 7th St NE -- H St

QC JOB #: 10786129

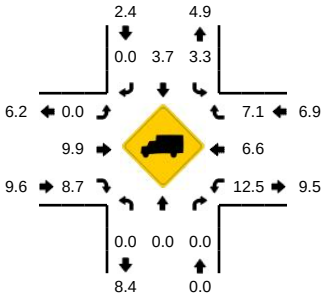
CITY/STATE: Washington, DC

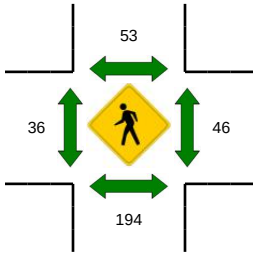
DATE: Wed, Jul 18 2012

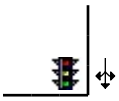


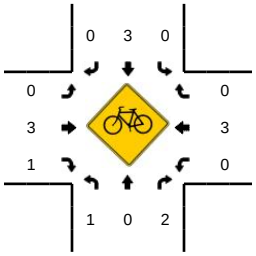
Peak-Hour: 12:00 PM -- 1:00 PM

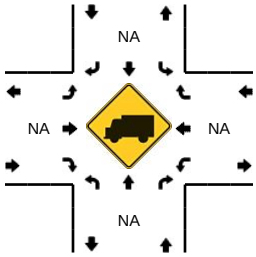
Peak 15-Min: 12:15 PM -- 12:30 PM

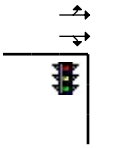


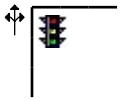


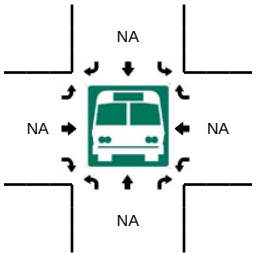












15-Min Count Period Beginning At	7th St NE (Northbound)				7th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	0	0	0	0	6	7	4	0	8	110	12	0	5	126	10	0	288	
12:15 PM	0	0	0	0	7	12	12	0	2	124	14	1	7	114	3	1	297	
12:30 PM	0	0	0	0	8	4	5	0	1	118	10	0	3	110	6	0	265	
12:45 PM	0	0	0	0	9	4	7	0	2	131	10	0	7	107	9	1	287	1137

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	28	48	48	0	8	496	56	4	28	456	12	4	1188
Heavy Trucks	0	0	0		0	4	0		0	36	8		4	28	4		84
Pedestrians		212				60				32				48			352
Bicycles	0	0	1		0	1	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

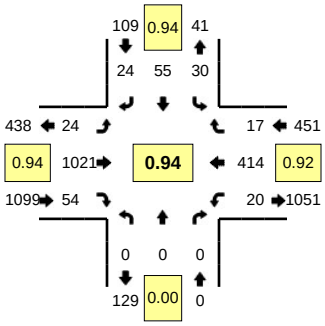
Method for determining peak hour: Total Entering Volume

LOCATION: 7th St NE -- H St

QC JOB #: 10786130

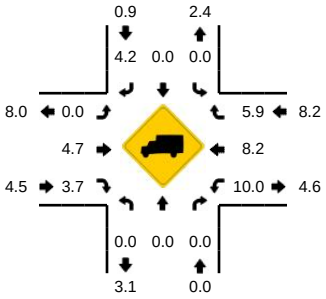
CITY/STATE: Washington, DC

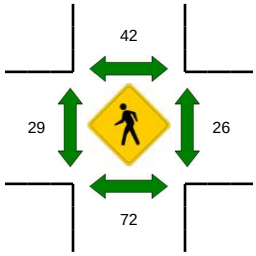
DATE: Wed, Jul 18 2012

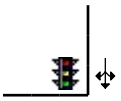


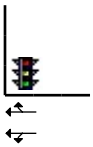
Peak-Hour: 4:00 PM -- 5:00 PM

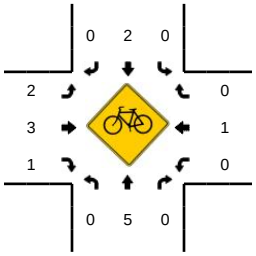
Peak 15-Min: 4:30 PM -- 4:45 PM

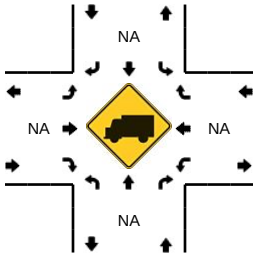


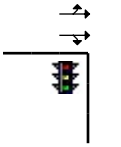


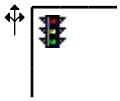


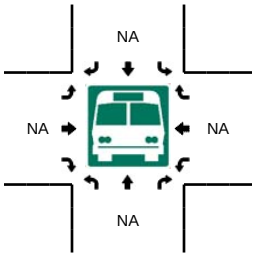












15-Min Count Period Beginning At	7th St NE (Northbound)				7th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	4	18	6	0	3	245	9	0	6	106	6	0	403	
4:15 PM	0	0	0	0	10	8	7	0	2	259	6	0	9	97	3	0	401	
4:30 PM	0	0	0	0	10	13	4	0	6	274	12	0	4	116	3	0	442	
4:45 PM	0	0	0	0	6	16	7	0	13	243	27	0	1	95	5	0	413	1659

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	40	52	16	0	24	1096	48	0	16	464	12	0	1768
Heavy Trucks	0	0	0		0	0	4		0	56	4		0	36	4		104
Pedestrians		64				28				12				32			136
Bicycles	0	3	0		0	0	0		0	1	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

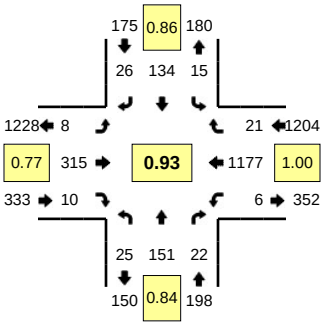
Method for determining peak hour: Total Entering Volume

LOCATION: 8th St NE -- H St

QC JOB #: 10786125

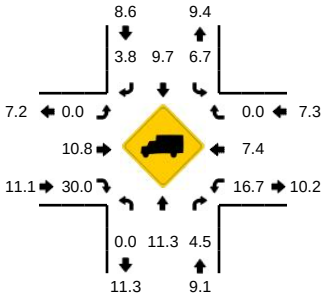
CITY/STATE: Washington, DC

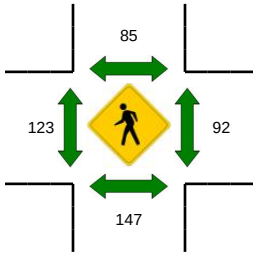
DATE: Wed, Jul 18 2012

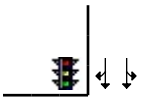


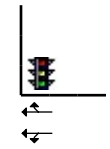
Peak-Hour: 7:30 AM -- 8:30 AM

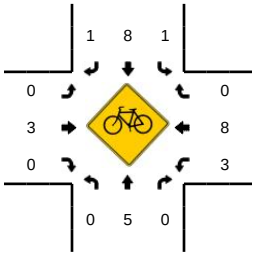
Peak 15-Min: 8:00 AM -- 8:15 AM

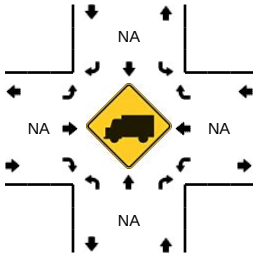


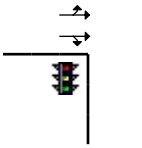


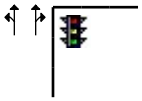


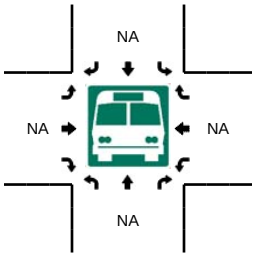












15-Min Count Period Beginning At	8th St NE (Northbound)				8th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	0	34	5	0	3	23	6	0	2	72	2	0	0	296	6	0	449	
7:45 AM	7	32	4	0	6	37	8	0	2	67	1	0	2	288	8	0	462	
8:00 AM	8	42	9	0	5	35	4	0	2	103	3	0	2	296	4	0	513	
8:15 AM	10	43	4	0	1	39	8	0	2	73	4	0	2	297	3	0	486	1910

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	168	36	0	20	140	16	0	8	412	12	0	8	1184	16	0	2052
Heavy Trucks	0	24	4		0	12	0		0	36	4		4	88	0		172
Pedestrians		120				100				80				104			404
Bicycles	0	0	0		0	2	0		0	0	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments:

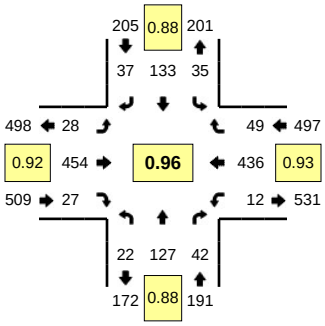
Report generated on 7/24/2012 2:25 PM

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

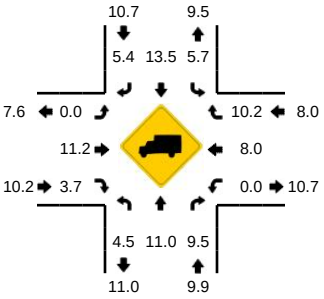
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

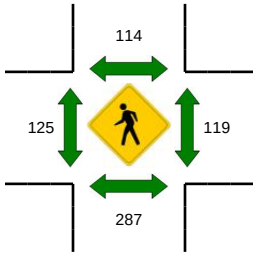
LOCATION: 8th St NE -- H St | **QC JOB #:** 10786126

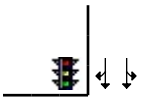
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

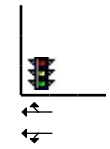


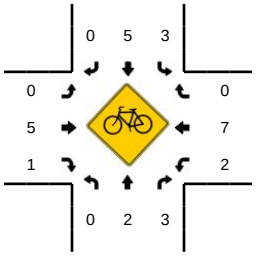
Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:15 PM -- 12:30 PM

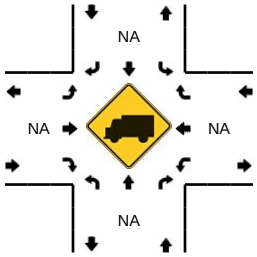


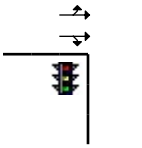


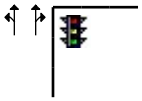


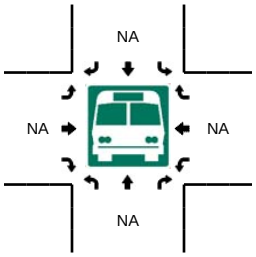












15-Min Count Period Beginning At	8th St NE (Northbound)				8th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	5	33	7	0	7	27	12	0	3	105	4	0	4	116	9	0	332	
12:15 PM	3	32	8	0	13	35	10	0	5	119	6	0	2	115	17	0	365	
12:30 PM	6	32	11	0	8	34	5	0	8	109	10	1	4	102	11	0	341	
12:45 PM	8	30	16	0	7	37	10	0	9	121	7	2	2	103	12	0	364	1402

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	128	32	0	52	140	40	0	20	476	24	0	8	460	68	0	1460
Heavy Trucks	4	12	4		4	16	0		0	40	0		0	28	12		120
Pedestrians		276				112				116				80			584
Bicycles	0	1	1		2	2	0		0	1	0		0	1	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

Type of peak hour being reported: Intersection Peak

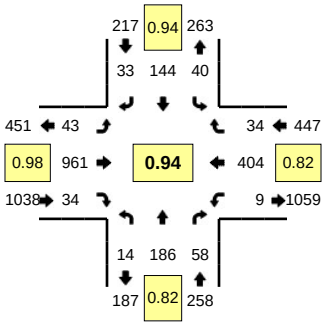
Method for determining peak hour: Total Entering Volume

LOCATION: 8th St NE -- H St

QC JOB #: 10786127

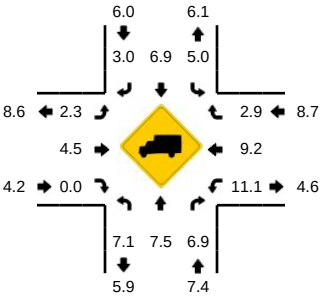
CITY/STATE: Washington, DC

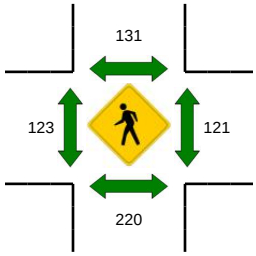
DATE: Wed, Jul 18 2012

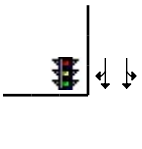


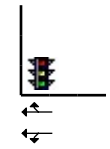
Peak-Hour: 4:00 PM -- 5:00 PM

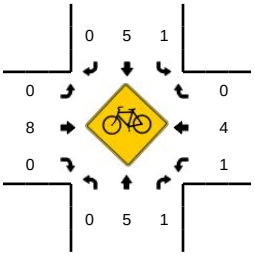
Peak 15-Min: 4:30 PM -- 4:45 PM

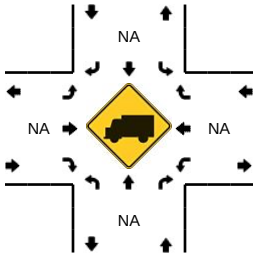


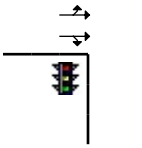


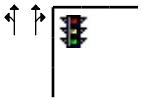


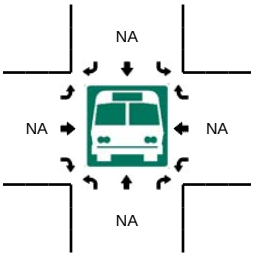












15-Min Count Period Beginning At	8th St NE (Northbound)				8th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	56	18	0	8	37	5	0	10	232	9	0	1	106	8	0	495	
4:15 PM	3	46	11	0	9	32	11	0	11	245	6	0	2	89	5	0	470	
4:30 PM	1	41	17	0	12	38	8	0	11	249	6	0	2	122	13	0	520	
4:45 PM	5	43	12	0	11	37	9	0	11	235	13	0	4	87	8	0	475	1960

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	164	68	0	48	152	32	0	44	996	24	0	8	488	52	0	2080
Heavy Trucks	0	4	4		0	8	0		0	48	0		4	40	0		108
Pedestrians		148				172				116				148			584
Bicycles	0	0	0		0	1	0		0	3	0		0	1	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

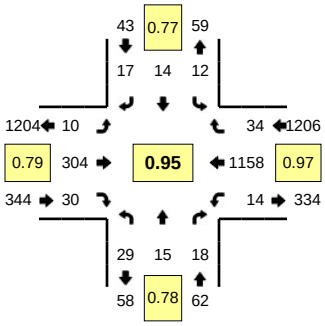
Method for determining peak hour: Total Entering Volume

LOCATION: 9th St NE -- H St

QC JOB #: 10786122

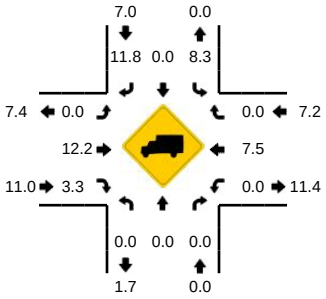
CITY/STATE: Washington, DC

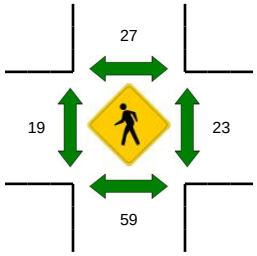
DATE: Wed, Jul 18 2012

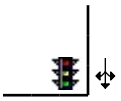


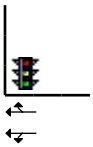
Peak-Hour: 7:30 AM -- 8:30 AM

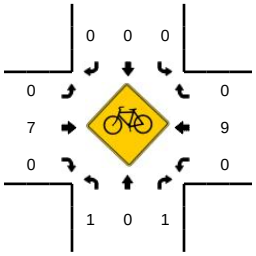
Peak 15-Min: 8:00 AM -- 8:15 AM

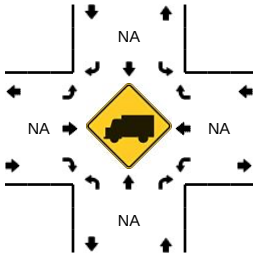


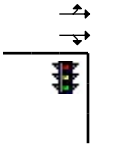


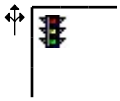


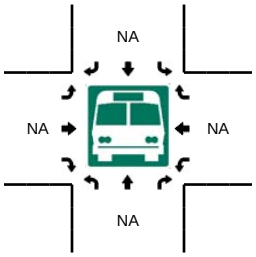












15-Min Count Period Beginning At	9th St NE (Northbound)				9th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	8	1	4	0	0	6	2	0	3	68	6	0	3	297	5	0	403	
7:45 AM	9	3	8	0	3	4	7	0	1	66	12	0	6	275	6	0	400	
8:00 AM	8	3	1	0	7	1	5	0	5	97	7	0	2	290	11	0	437	
8:15 AM	4	8	5	0	2	3	3	0	1	73	5	0	3	296	12	0	415	1655

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	12	4	0	28	4	20	0	20	388	28	0	8	1160	44	0	1748
Heavy Trucks	0	0	0		0	0	4		0	40	0		0	84	0		128
Pedestrians		28				28				12				16			84
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

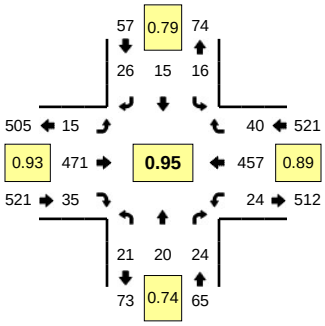
Report generated on 7/24/2012 2:25 PM

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

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

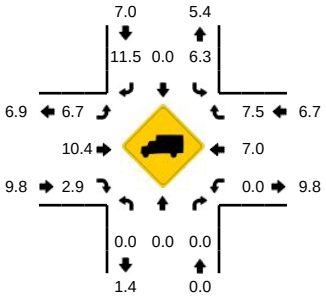
LOCATION: 9th St NE -- H St | **QC JOB #:** 10786123

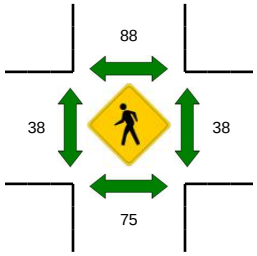
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

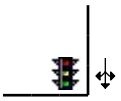


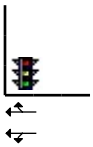
Peak-Hour: 12:00 PM -- 1:00 PM

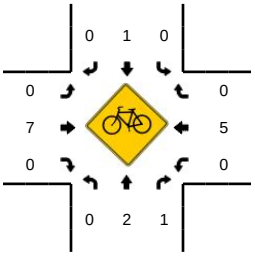
Peak 15-Min: 12:15 PM -- 12:30 PM

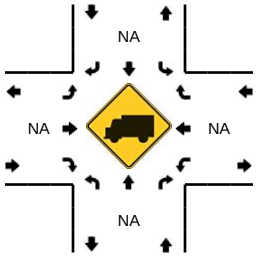


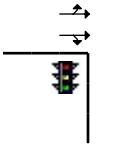


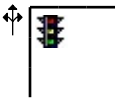


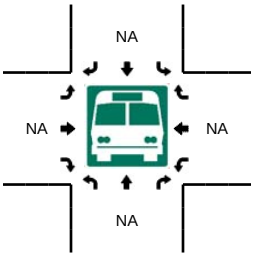












15-Min Count Period Beginning At	9th St NE (Northbound)				9th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	3	4	8	0	6	4	3	0	2	110	5	0	4	129	14	0	292	
12:15 PM	7	5	4	0	1	3	12	0	4	123	10	1	11	114	11	0	306	
12:30 PM	4	5	3	0	6	7	5	0	6	113	7	0	1	106	10	1	274	
12:45 PM	7	6	9	0	3	1	6	0	2	125	13	0	7	108	5	0	292	1164

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	20	16	0	4	12	48	0	16	492	40	4	44	456	44	0	1224
Heavy Trucks	0	0	0		0	0	4		0	60	0		0	28	0		92
Pedestrians		68				80				32				20			200
Bicycles	0	0	0		0	0	0		0	1	0		0	2	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

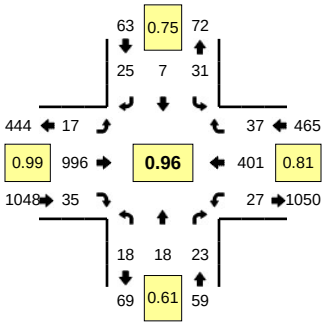
Method for determining peak hour: Total Entering Volume

LOCATION: 9th St NE -- H St

QC JOB #: 10786124

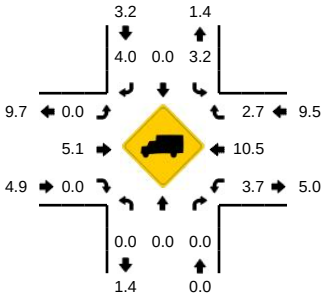
CITY/STATE: Washington, DC

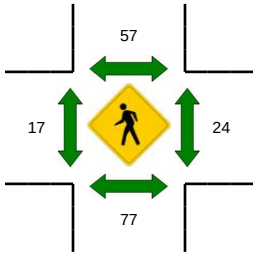
DATE: Wed, Jul 18 2012

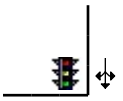


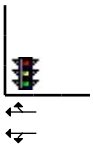
Peak-Hour: 4:00 PM -- 5:00 PM

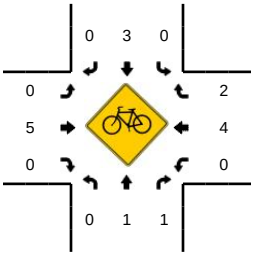
Peak 15-Min: 4:30 PM -- 4:45 PM

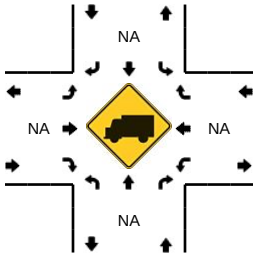


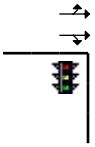


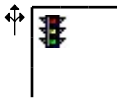


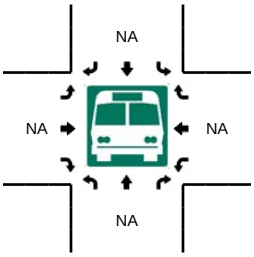












15-Min Count Period Beginning At	9th St NE (Northbound)				9th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	2	5	0	9	4	4	0	7	239	9	0	7	99	7	0	395	
4:15 PM	8	8	8	0	11	1	9	0	2	256	7	0	6	81	12	0	409	
4:30 PM	3	5	3	0	6	0	3	0	4	254	5	0	7	131	6	0	427	
4:45 PM	4	3	7	0	5	2	9	0	4	247	14	0	7	90	12	0	404	1635

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	20	12	0	24	0	12	0	16	1016	20	0	28	524	24	0	1708
Heavy Trucks	0	0	0		0	0	0		0	60	0		0	52	0		112
Pedestrians		84				84				20				12			200
Bicycles	0	0	0		0	2	0		0	2	0		0	1	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

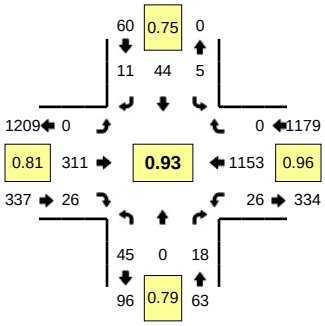
LOCATION: 10th St NE -- H St

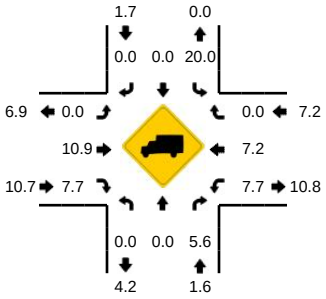
CITY/STATE: Washington, DC

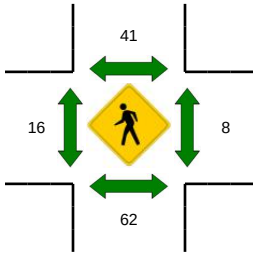
QC JOB #: 10786119

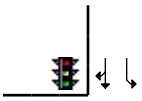
DATE: Wed, Jul 18 2012

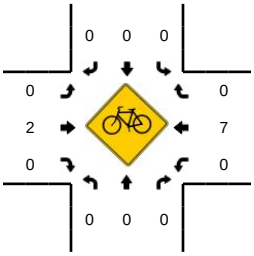
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

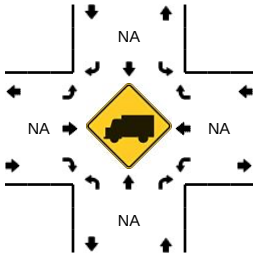


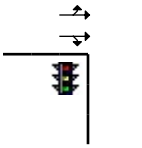


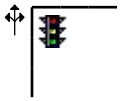


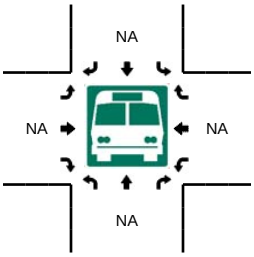












15-Min Count Period Beginning At	10th St NE (Northbound)				10th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	8	0	3	0	2	12	5	0	0	65	5	0	10	293	0	0	403	
7:45 AM	13	0	3	0	1	8	1	0	0	76	3	0	5	268	0	0	378	
8:00 AM	13	0	7	0	2	15	3	0	0	92	12	0	6	290	0	0	440	
8:15 AM	11	0	5	0	0	9	2	0	0	78	6	0	5	302	0	0	418	1639

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	52	0	28	0	8	60	12	0	0	368	48	0	24	1160	0	0	1760
Heavy Trucks	0	0	0		0	0	0		0	40	4		0	76	0		120
Pedestrians		60				40				4				12			116
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

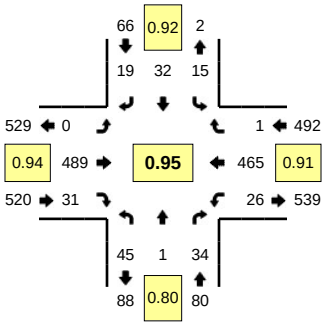
Report generated on 7/24/2012 2:25 PM

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

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

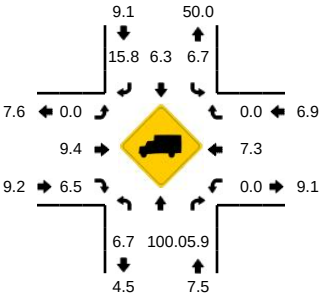
LOCATION: 10th St NE -- H St | **QC JOB #:** 10786120

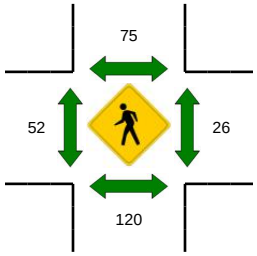
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

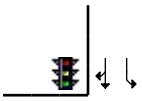


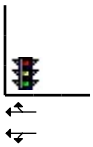
Peak-Hour: 12:00 PM -- 1:00 PM

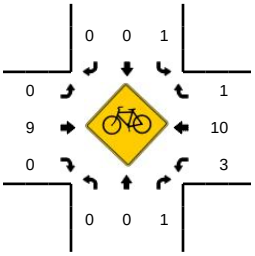
Peak 15-Min: 12:15 PM -- 12:30 PM

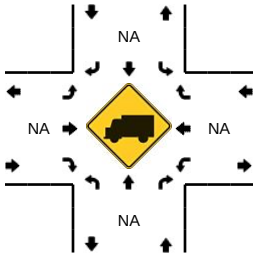


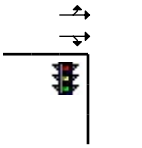


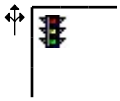


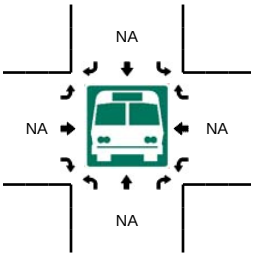












15-Min Count Period Beginning At	10th St NE (Northbound)				10th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	12	0	10	0	2	6	4	0	0	116	6	0	4	126	0	1	287	
12:15 PM	9	1	4	0	4	10	4	0	0	131	8	0	9	126	0	0	306	
12:30 PM	11	0	14	0	4	7	7	0	0	118	7	0	5	106	1	0	280	
12:45 PM	13	0	6	0	5	9	4	0	0	124	10	0	7	107	0	0	285	1158

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	4	16	0	16	40	16	0	0	524	32	0	36	504	0	0	1224
Heavy Trucks	0	4	0		4	0	8		0	64	4		0	36	0		120
Pedestrians		116				68				56				12			252
Bicycles	0	0	1		1	0	0		0	3	0		1	2	0		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

Type of peak hour being reported: Intersection Peak

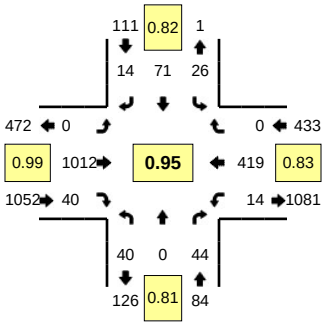
Method for determining peak hour: Total Entering Volume

LOCATION: 10th St NE -- H St

QC JOB #: 10786121

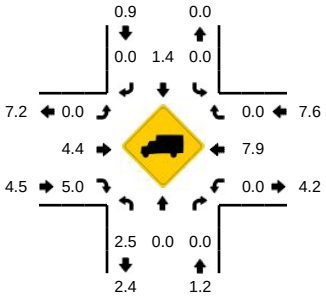
CITY/STATE: Washington, DC

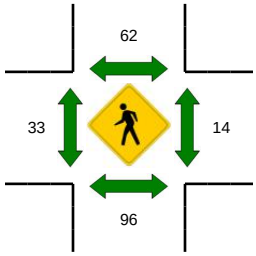
DATE: Wed, Jul 18 2012

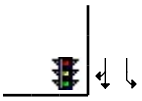


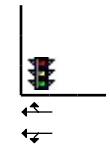
Peak-Hour: 4:00 PM -- 5:00 PM

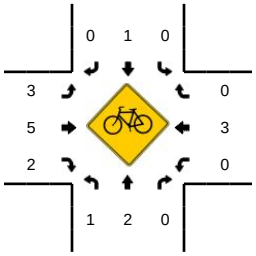
Peak 15-Min: 4:30 PM -- 4:45 PM

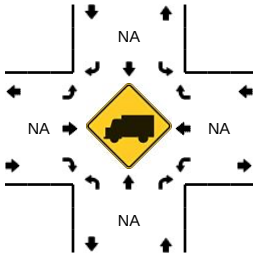


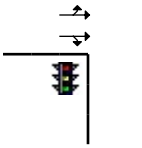


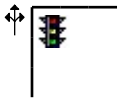


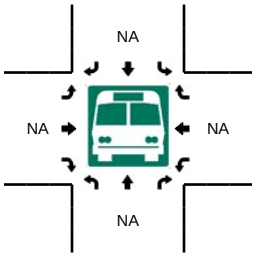












15-Min Count Period Beginning At	10th St NE (Northbound)				10th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	0	16	1	5	12	3	0	0	257	8	0	4	107	0	0	418	
4:15 PM	8	0	9	0	1	19	4	0	0	254	11	0	7	90	0	0	403	
4:30 PM	13	0	6	0	10	20	3	0	0	245	16	0	1	129	0	0	443	
4:45 PM	13	0	13	0	9	20	4	1	0	256	5	0	2	93	0	0	416	1680

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	52	0	24	0	40	80	12	0	0	980	64	0	4	516	0	0	1772
Heavy Trucks	0	0	0		0	0	0		0	56	4		0	44	0		104
Pedestrians		92				84				32				16			224
Bicycles	0	1	0		0	1	0		0	2	1		0	1	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

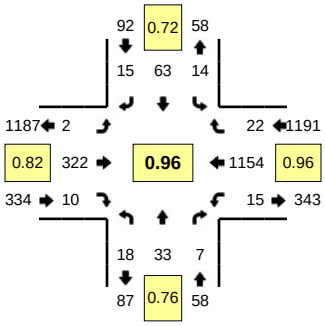
Method for determining peak hour: Total Entering Volume

LOCATION: 11th St NE -- H St

QC JOB #: 10786116

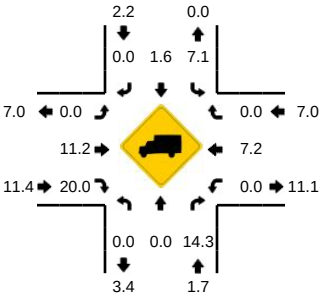
CITY/STATE: Washington, DC

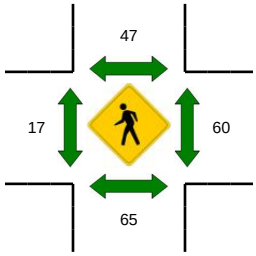
DATE: Wed, Jul 18 2012

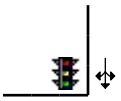


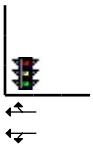
Peak-Hour: 7:30 AM -- 8:30 AM

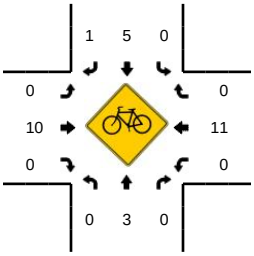
Peak 15-Min: 8:00 AM -- 8:15 AM

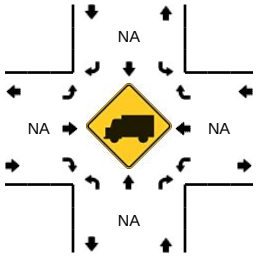


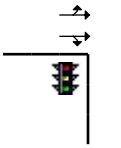


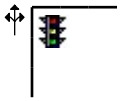


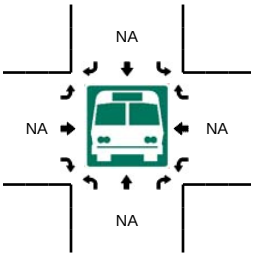












15-Min Count Period Beginning At	11th St NE (Northbound)				11th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	3	5	1	0	2	15	0	0	1	69	3	0	1	296	7	0	403	
7:45 AM	2	11	0	0	5	12	5	0	0	74	2	0	3	284	4	0	402	
8:00 AM	5	6	6	0	5	20	6	1	0	99	3	0	4	279	3	0	437	
8:15 AM	8	11	0	0	1	16	4	0	1	80	2	0	6	295	8	1	433	1675

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	24	24	0	20	80	24	4	0	396	12	0	16	1116	12	0	1748
Heavy Trucks	0	0	4		4	4	0		0	44	4		0	88	0		148
Pedestrians		76				72				24				48			220
Bicycles	0	0	0		0	2	0		0	2	0		0	2	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

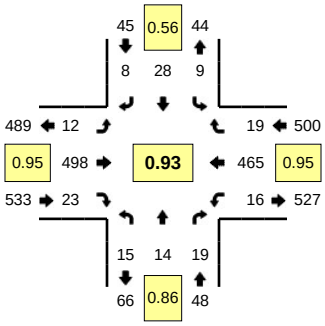
Method for determining peak hour: Total Entering Volume

LOCATION: 11th St NE -- H St

QC JOB #: 10786117

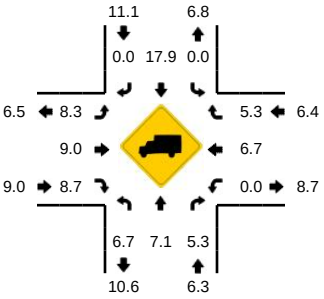
CITY/STATE: Washington, DC

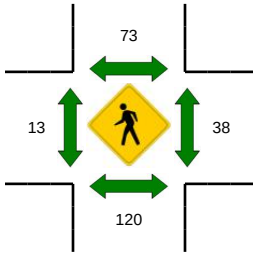
DATE: Wed, Jul 18 2012

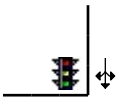


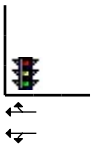
Peak-Hour: 12:00 PM -- 1:00 PM

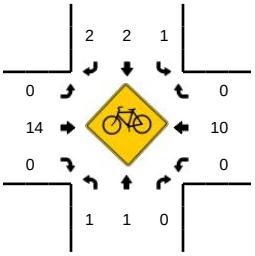
Peak 15-Min: 12:45 PM -- 1:00 PM

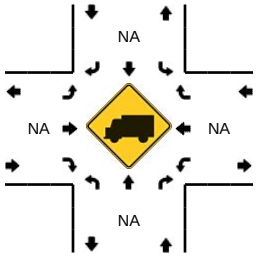


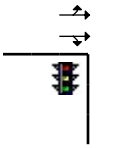


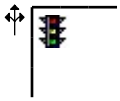


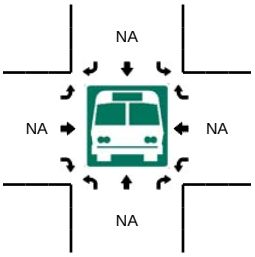












15-Min Count Period Beginning At	11th St NE (Northbound)				11th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	3	5	4	0	2	8	5	0	2	117	6	0	3	123	3	0	281	
12:15 PM	7	0	5	0	1	0	1	0	1	124	5	0	4	121	0	0	269	
12:30 PM	2	4	8	0	0	8	0	0	4	126	7	0	2	108	5	0	274	
12:45 PM	3	5	2	0	6	12	2	0	4	131	5	1	6	113	11	1	302	1126

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	20	8	0	24	48	8	0	16	524	20	4	24	452	44	4	1208
Heavy Trucks	0	0	0		0	4	0		0	36	0		0	16	0		56
Pedestrians		124				56				12				24			216
Bicycles	1	1	0		0	0	0		0	0	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

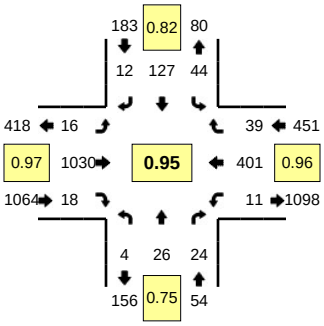
Method for determining peak hour: Total Entering Volume

LOCATION: 11th St NE -- H St

QC JOB #: 10786118

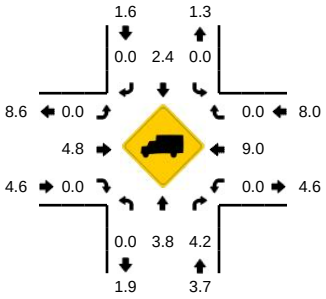
CITY/STATE: Washington, DC

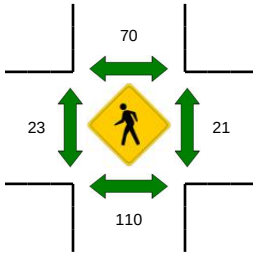
DATE: Wed, Jul 18 2012

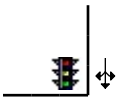


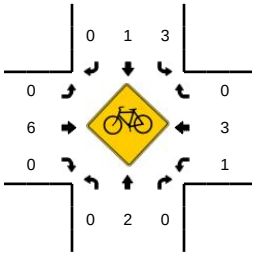
Peak-Hour: 4:00 PM -- 5:00 PM

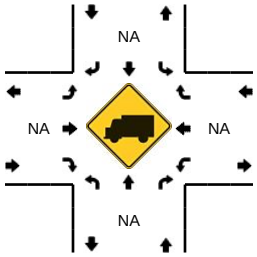
Peak 15-Min: 4:00 PM -- 4:15 PM

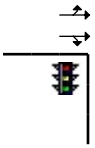


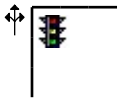


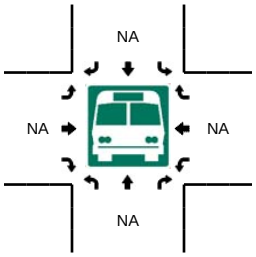












15-Min Count Period Beginning At	11th St NE (Northbound)				11th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	12	5	0	15	38	3	0	5	265	4	0	5	103	5	0	461	
4:15 PM	1	6	3	0	6	30	1	0	2	252	7	0	1	98	14	0	421	
4:30 PM	2	5	7	0	9	34	3	0	5	256	4	1	4	108	6	0	444	
4:45 PM	0	3	9	0	14	25	5	0	3	257	3	0	1	92	14	0	426	1752

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	48	20	0	60	152	12	0	20	1060	16	0	20	412	20	0	1844
Heavy Trucks	0	0	4		0	4	0		0	60	0		0	56	0		124
Pedestrians		88				80				36				20			224
Bicycles	0	0	0		0	0	0		0	3	0		1	1	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

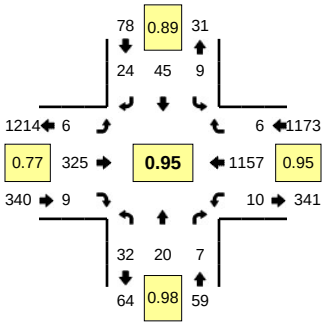
Method for determining peak hour: Total Entering Volume

LOCATION: 12th St NE -- H St

QC JOB #: 10786113

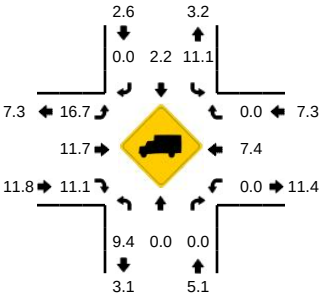
CITY/STATE: Washington, DC

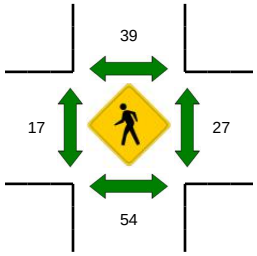
DATE: Wed, Jul 18 2012

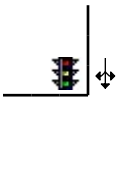


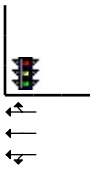
Peak-Hour: 7:30 AM -- 8:30 AM

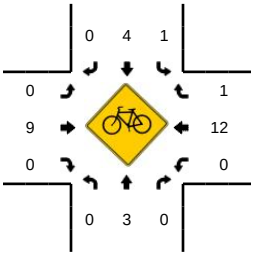
Peak 15-Min: 8:00 AM -- 8:15 AM

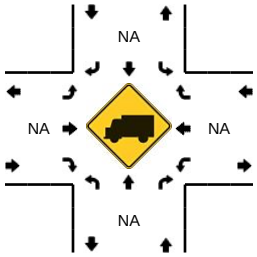


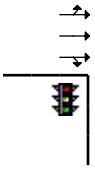


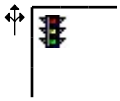


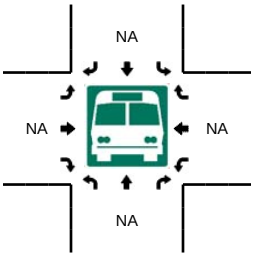












15-Min Count Period Beginning At	12th St NE (Northbound)				12th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	7	7	1	0	2	5	8	0	0	75	1	0	2	278	2	0	388	
7:45 AM	11	3	1	0	0	15	7	0	2	71	1	1	2	288	3	0	405	
8:00 AM	6	6	3	0	6	11	2	0	1	105	5	0	3	284	1	0	433	
8:15 AM	8	4	2	0	1	14	7	0	2	74	2	0	3	307	0	0	424	1650

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	24	12	0	24	44	8	0	4	420	20	0	12	1136	4	0	1732
Heavy Trucks	0	0	0		0	0	0		0	48	4		0	84	0		136
Pedestrians		44				60				20				32			156
Bicycles	0	0	0		0	2	0		0	2	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

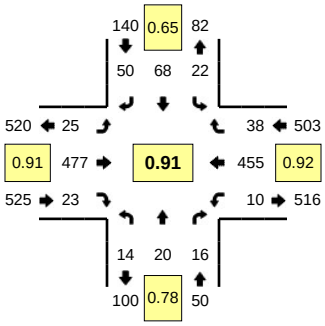
Method for determining peak hour: Total Entering Volume

LOCATION: 12th St NE -- H St

QC JOB #: 10786114

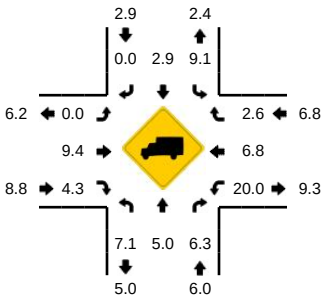
CITY/STATE: Washington, DC

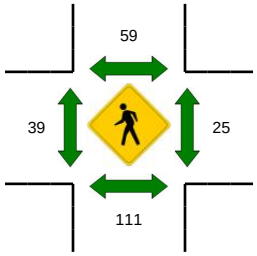
DATE: Wed, Jul 18 2012

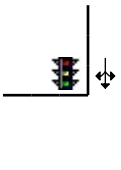


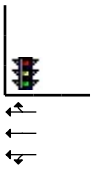
Peak-Hour: 12:00 PM -- 1:00 PM

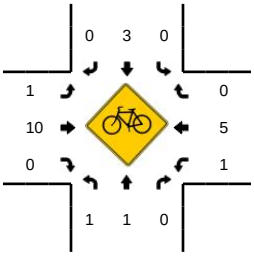
Peak 15-Min: 12:15 PM -- 12:30 PM

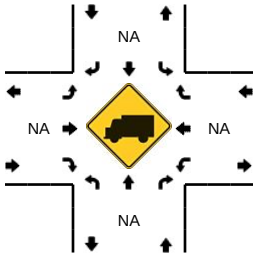


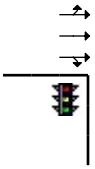


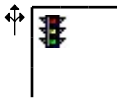


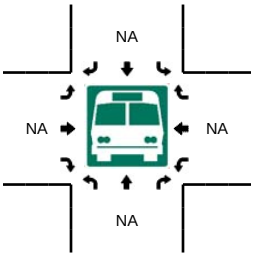












15-Min Count Period Beginning At	12th St NE (Northbound)				12th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	4	8	4	0	8	17	12	0	5	110	6	0	3	125	8	0	310	
12:15 PM	6	2	4	0	7	31	16	0	9	132	4	0	3	110	9	0	333	
12:30 PM	1	2	5	0	5	9	9	0	3	115	8	0	1	101	8	1	268	
12:45 PM	3	8	3	0	2	11	13	0	7	120	5	1	2	119	13	0	307	1218

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	8	16	0	28	124	64	0	36	528	16	0	12	440	36	0	1332
Heavy Trucks	0	0	0		4	8	0		0	60	0		0	32	4		108
Pedestrians		140				60				52				28			280
Bicycles	0	0	0		0	2	0		0	1	0		1	1	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 12th St NE -- H St

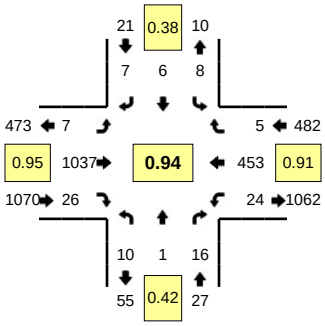
CITY/STATE: Washington, DC

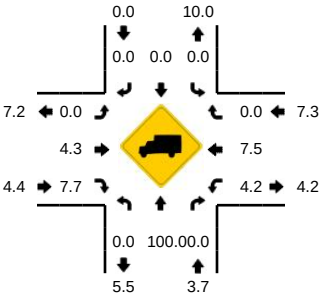
QC JOB #: 10786115

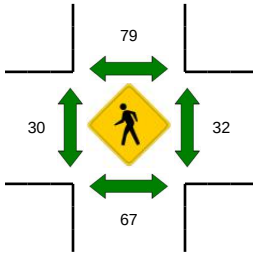
DATE: Wed, Jul 18 2012

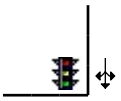
Peak-Hour: 4:00 PM -- 5:00 PM

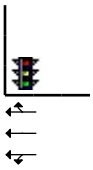
Peak 15-Min: 4:00 PM -- 4:15 PM

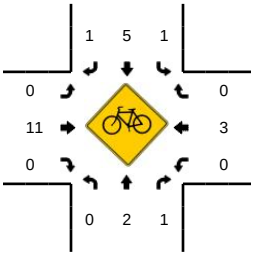


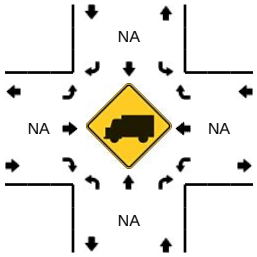


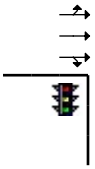


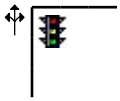


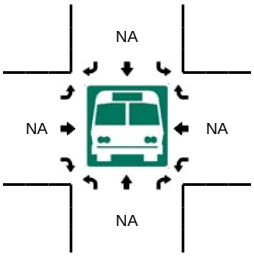












15-Min Count Period Beginning At	12th St NE (Northbound)				12th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	4	0	5	4	5	0	4	271	7	0	7	113	4	0	425	
4:15 PM	0	0	1	0	1	0	0	0	0	247	0	1	8	124	0	0	382	
4:30 PM	2	0	3	0	2	1	1	0	0	258	8	1	7	105	0	0	388	
4:45 PM	8	0	8	0	0	1	1	0	0	261	11	1	1	111	1	1	405	1600

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	4	16	0	20	16	20	0	16	1084	28	0	28	452	16	0	1700
Heavy Trucks	0	4	0		0	0	0		0	60	4		4	48	0		120
Pedestrians		88				92				36				28			244
Bicycles	0	0	1		1	1	0		0	3	0		0	0	0		6
Railroad																	
Stopped Buses																	

Comments:

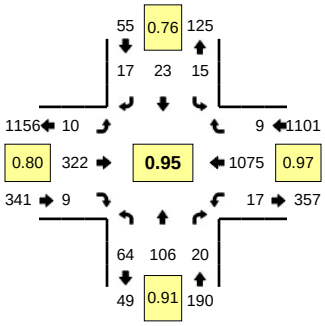
Report generated on 7/24/2012 2:25 PM

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

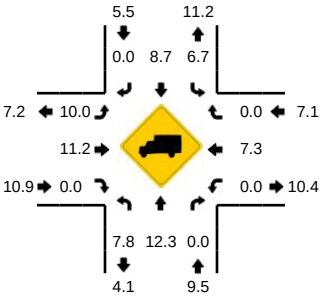
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

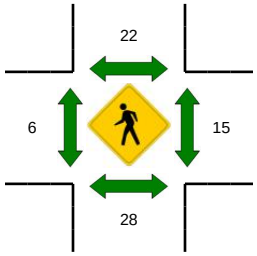
LOCATION: 13th St NE -- H St | **QC JOB #:** 10786110

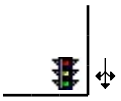
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

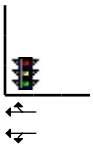


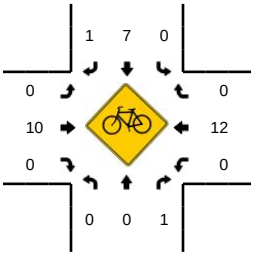
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

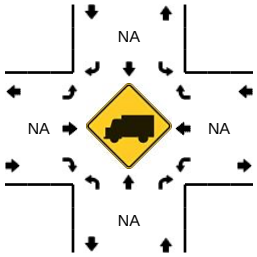


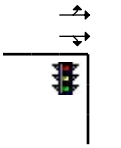


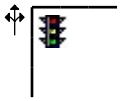


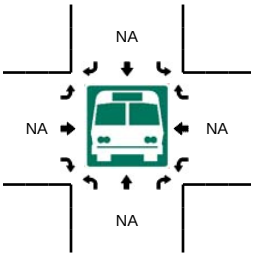












15-Min Count Period Beginning At	13th St NE (Northbound)				13th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	12	27	4	0	2	5	6	0	3	68	1	0	2	268	1	0	399	
7:45 AM	14	33	5	0	5	10	3	0	1	78	2	0	4	263	2	0	420	
8:00 AM	19	27	3	0	3	4	6	0	4	101	2	0	5	266	6	0	446	
8:15 AM	19	19	8	0	5	4	2	0	2	75	4	0	6	278	0	0	422	1687

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	108	12	0	12	16	24	0	16	404	8	0	20	1064	24	0	1784
Heavy Trucks	8	12	0		0	0	0		4	40	0		0	76	0		140
Pedestrians		24				36				4				8			72
Bicycles	0	0	0		0	4	0		0	2	0		0	1	0		7
Railroad																	
Stopped Buses																	

Comments:

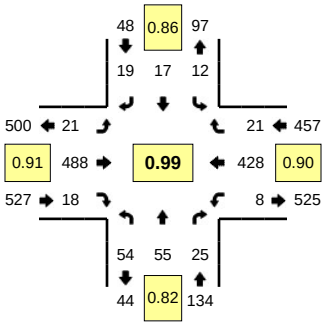
Report generated on 7/24/2012 2:25 PM

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

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

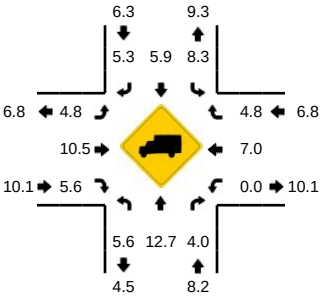
LOCATION: 13th St NE -- H St | **QC JOB #:** 10786111

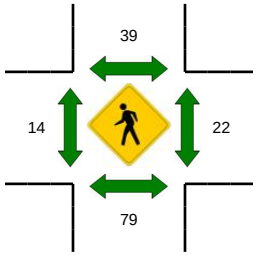
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

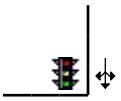


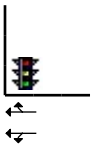
Peak-Hour: 12:00 PM -- 1:00 PM

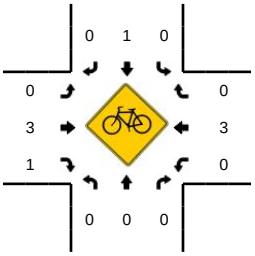
Peak 15-Min: 12:30 PM -- 12:45 PM

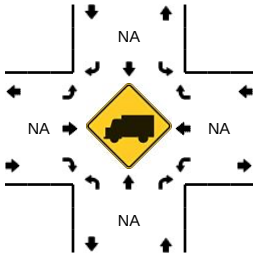


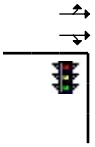


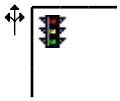


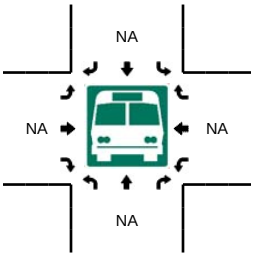












15-Min Count Period Beginning At	13th St NE (Northbound)				13th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	20	7	6	0	5	5	4	0	7	120	1	0	3	104	4	0	286	
12:15 PM	10	16	6	0	3	5	5	0	2	137	6	0	0	103	1	0	294	
12:30 PM	11	20	9	1	2	4	4	0	5	120	4	0	5	101	9	0	295	
12:45 PM	12	12	4	0	2	3	6	0	7	111	7	0	0	120	7	0	291	1166

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	80	36	4	8	16	16	0	20	480	16	0	20	404	36	0	1180
Heavy Trucks	0	12	0		0	4	0		0	44	0		0	28	4		92
Pedestrians		68				40				16				20			144
Bicycles	0	0	0		0	1	0		0	1	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

Type of peak hour being reported: Intersection Peak

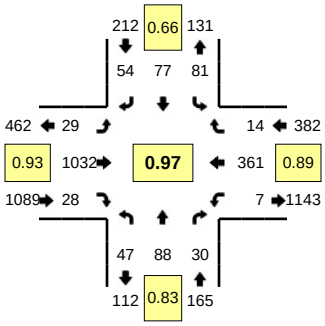
Method for determining peak hour: Total Entering Volume

LOCATION: 13th St NE -- H St

QC JOB #: 10786112

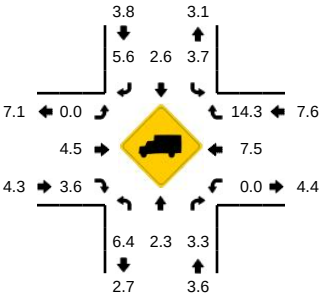
CITY/STATE: Washington, DC

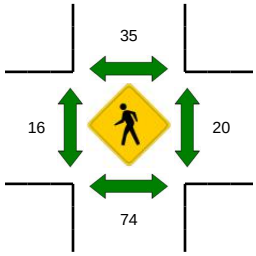
DATE: Wed, Jul 18 2012

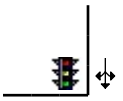


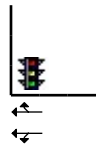
Peak-Hour: 4:00 PM -- 5:00 PM

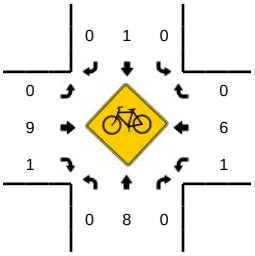
Peak 15-Min: 4:45 PM -- 5:00 PM

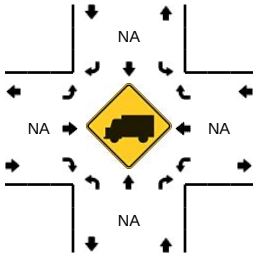


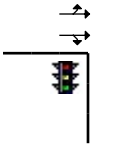


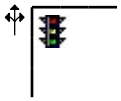


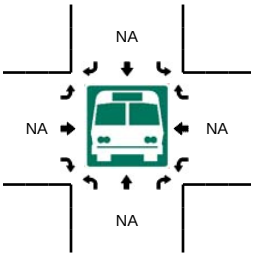












15-Min Count Period Beginning At	13th St NE (Northbound)				13th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	18	20	12	0	10	16	11	0	8	281	5	0	0	90	1	0	472	
4:15 PM	9	27	5	0	15	17	13	0	11	248	5	0	4	98	5	0	457	
4:30 PM	10	25	6	0	15	21	14	0	3	240	10	0	2	92	5	0	443	
4:45 PM	10	16	7	0	41	23	16	0	7	263	8	0	1	81	3	0	476	1848

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	64	28	0	164	92	64	0	28	1052	32	0	4	324	12	0	1904
Heavy Trucks	0	0	4		8	0	0		0	36	0		0	16	4		68
Pedestrians		60				16				8				16			100
Bicycles	0	5	0		0	0	0		0	1	0		1	0	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

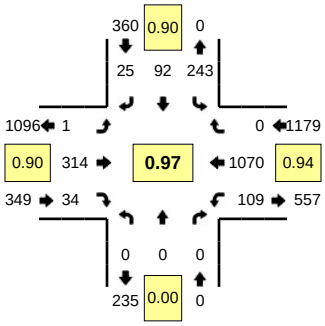
Method for determining peak hour: Total Entering Volume

LOCATION: 14th St NE -- H St

QC JOB #: 10786107

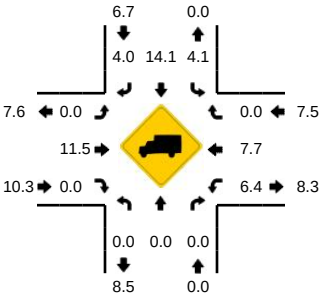
CITY/STATE: Washington, DC

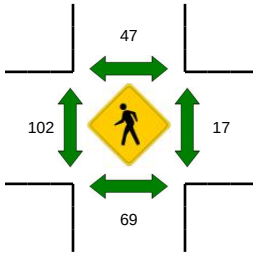
DATE: Wed, Jul 18 2012

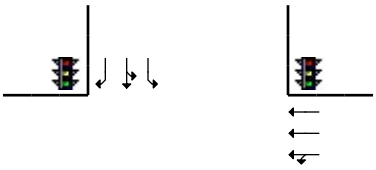


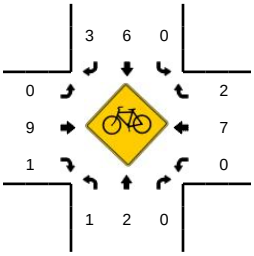
Peak-Hour: 7:30 AM -- 8:30 AM

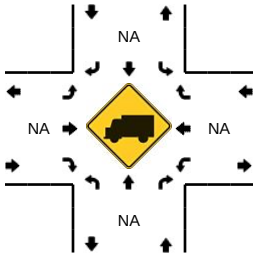
Peak 15-Min: 8:00 AM -- 8:15 AM

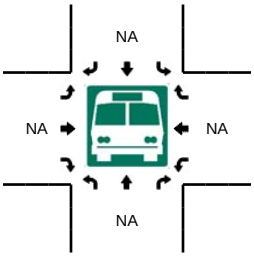












15-Min Count Period Beginning At	14th St NE (Northbound)				14th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	0	0	0	0	58	18	6	0	0	71	7	1	25	251	0	0	437	
7:45 AM	0	0	0	0	68	28	4	0	0	77	7	0	25	275	0	0	484	
8:00 AM	0	0	0	0	66	28	4	0	0	86	11	0	19	272	0	0	486	
8:15 AM	0	0	0	0	51	18	11	0	0	80	9	0	40	272	0	0	481	1888

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	264	112	16	0	0	344	44	0	76	1088	0	0	1944
Heavy Trucks	0	0	0		20	28	0		0	36	0		4	76	0		164
Pedestrians		88				64				124				24			300
Bicycles	0	0	0		0	3	0		0	3	0		0	1	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

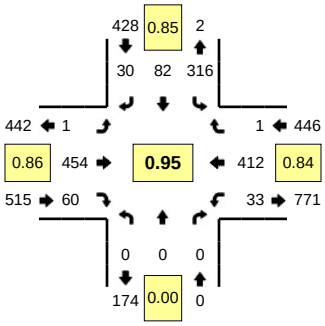
Method for determining peak hour: Total Entering Volume

LOCATION: 14th St NE -- H St

QC JOB #: 10786108

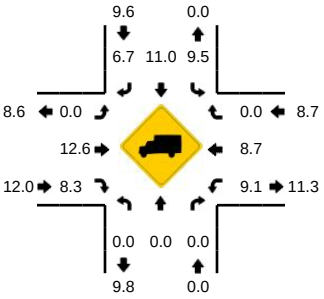
CITY/STATE: Washington, DC

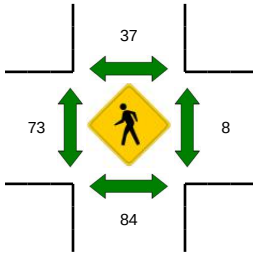
DATE: Wed, Jul 18 2012

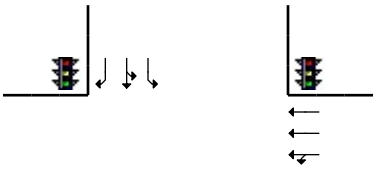


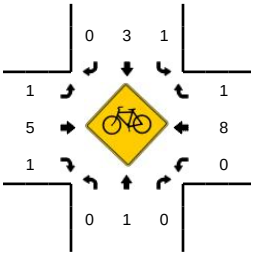
Peak-Hour: 12:00 PM -- 1:00 PM

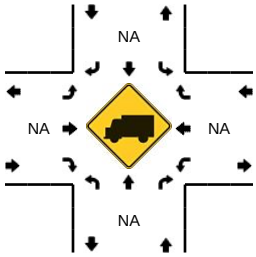
Peak 15-Min: 12:30 PM -- 12:45 PM

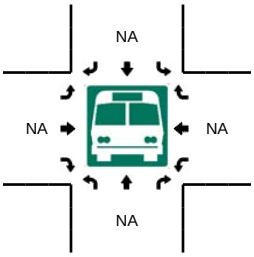












15-Min Count Period Beginning At	14th St NE (Northbound)				14th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	0	0	0	0	58	17	11	0	0	108	9	0	11	98	0	0	312	
12:15 PM	0	0	0	0	92	16	4	0	0	125	25	0	6	87	0	0	355	
12:30 PM	0	0	0	0	94	25	7	0	0	120	8	0	8	103	0	1	366	
12:45 PM	0	0	0	0	72	24	8	0	1	101	18	0	7	124	1	0	356	1389

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	376	100	28	0	0	480	32	0	32	412	0	4	1464
Heavy Trucks	0	0	0		40	16	0		0	52	4		4	36	0		152
Pedestrians		88				44				72				0			204
Bicycles	0	0	0		1	0	0		0	2	0		0	1	1		5
Railroad																	
Stopped Buses																	

Comments:

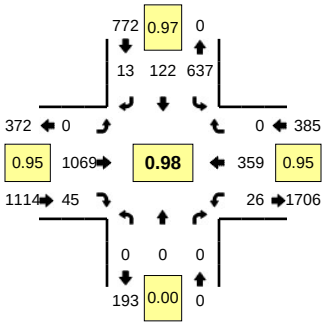
Report generated on 7/24/2012 2:25 PM

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

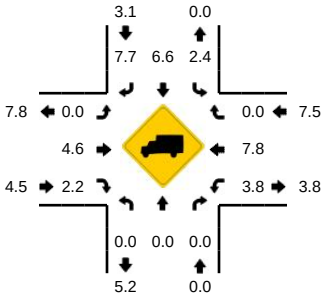
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

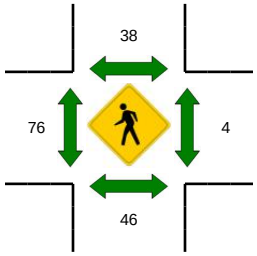
LOCATION: 14th St NE -- H St | **QC JOB #:** 10786109

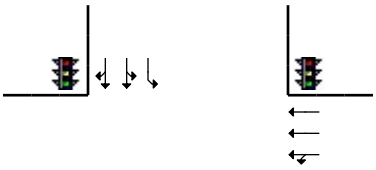
CITY/STATE: Washington, DC | **DATE:** Wed, Jul 18 2012

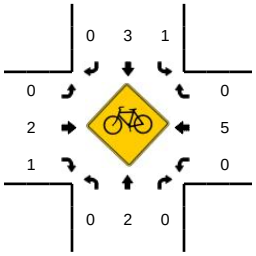


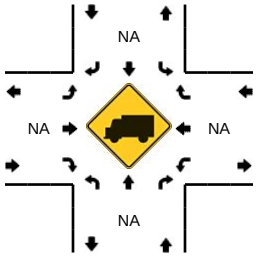
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:00 PM -- 4:15 PM

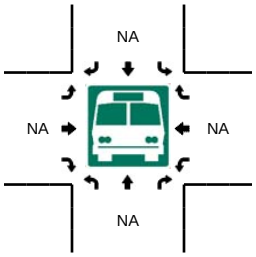












15-Min Count Period Beginning At	14th St NE (Northbound)				14th St NE (Southbound)				H St (Eastbound)				H St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	155	37	4	0	0	275	17	0	3	86	0	0	577	
4:15 PM	0	0	0	0	141	35	6	0	0	258	11	0	7	94	0	0	552	
4:30 PM	0	0	0	0	170	27	3	0	0	255	10	0	6	95	0	0	566	
4:45 PM	0	0	0	0	171	23	0	0	0	281	7	0	10	84	0	0	576	2271

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	620	148	16	0	0	1100	68	0	12	344	0	0	2308
Heavy Trucks	0	0	0		4	16	0		0	48	4		0	36	0		108
Pedestrians		28				56				96				8			188
Bicycles	0	1	0		0	1	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

Type of peak hour being reported: Intersection Peak

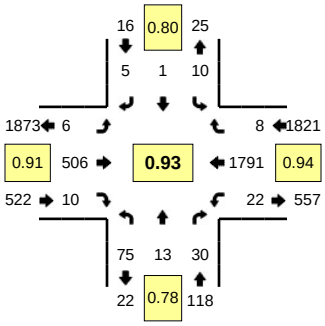
Method for determining peak hour: Total Entering Volume

LOCATION: 16th St NE -- Benning Rd

QC JOB #: 10786101

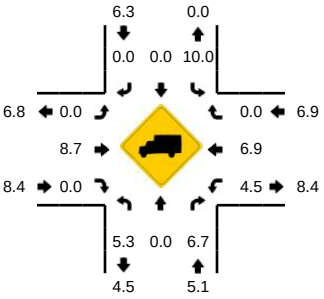
CITY/STATE: Washington, DC

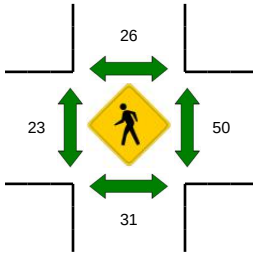
DATE: Wed, Jul 18 2012

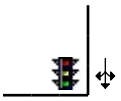


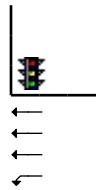
Peak-Hour: 7:30 AM -- 8:30 AM

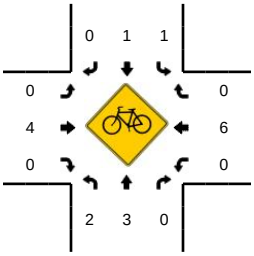
Peak 15-Min: 8:15 AM -- 8:30 AM

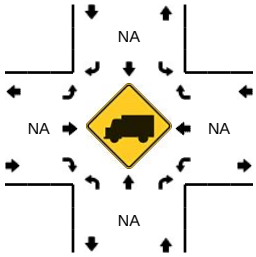


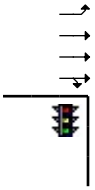


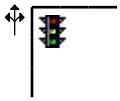


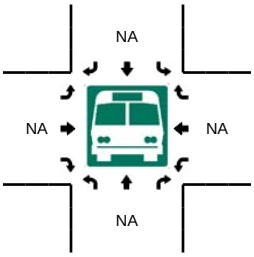












15-Min Count Period Beginning At	16th St NE (Northbound)				16th St NE (Southbound)				Benning Rd (Eastbound)				Benning Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	13	2	9	0	4	0	1	0	0	107	1	0	2	438	2	4	583	
7:45 AM	22	2	5	0	2	0	1	0	2	137	3	2	3	432	2	3	616	
8:00 AM	15	3	9	0	2	1	2	0	0	127	5	0	2	444	1	3	614	
8:15 AM	25	6	7	0	2	0	1	0	2	135	1	0	4	477	3	1	664	2477

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	100	24	28	0	8	0	4	0	8	540	4	0	16	1908	12	4	2656
Heavy Trucks	12	0	4		0	0	0		0	36	0		0	84	0		136
Pedestrians		40				4				20				48			112
Bicycles	1	1	0		1	0	0		0	0	0		0	2	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

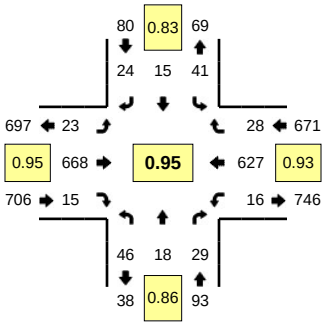
Method for determining peak hour: Total Entering Volume

LOCATION: 16th St NE -- Benning Rd

QC JOB #: 10786102

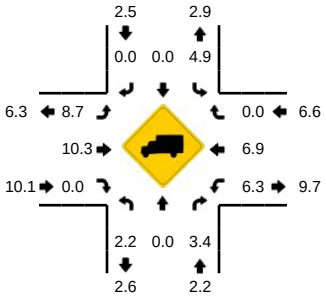
CITY/STATE: Washington, DC

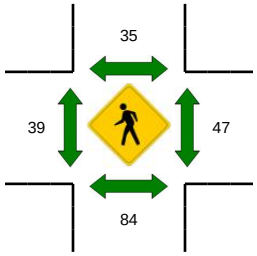
DATE: Wed, Jul 18 2012

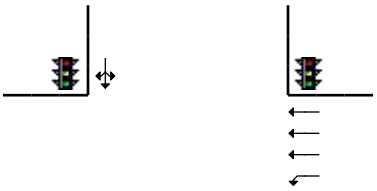


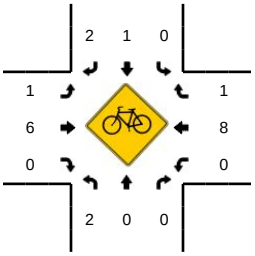
Peak-Hour: 12:00 PM -- 1:00 PM

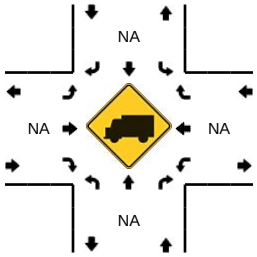
Peak 15-Min: 12:15 PM -- 12:30 PM

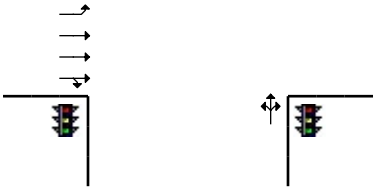


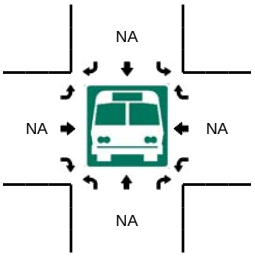












15-Min Count Period Beginning At	16th St NE (Northbound)				16th St NE (Southbound)				Benning Rd (Eastbound)				Benning Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	7	6	6	0	13	5	2	0	7	145	5	0	2	165	8	1	372	
12:15 PM	11	3	12	0	12	5	4	0	3	172	4	0	3	164	9	4	406	
12:30 PM	11	2	8	0	6	1	8	0	5	177	2	0	2	158	3	1	384	
12:45 PM	17	7	3	0	10	4	10	0	8	174	4	0	1	140	8	2	388	1550

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	12	48	0	48	20	16	0	12	688	16	0	12	656	36	16	1624
Heavy Trucks	0	0	4		0	0	0		0	108	0		0	64	0		176
Pedestrians		104				32				20				76			232
Bicycles	1	0	0		0	0	0		1	0	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

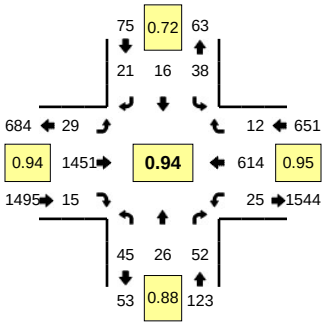
Method for determining peak hour: Total Entering Volume

LOCATION: 16th St NE -- Benning Rd

QC JOB #: 10786103

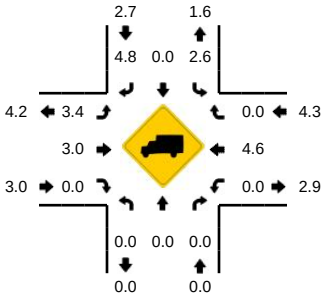
CITY/STATE: Washington, DC

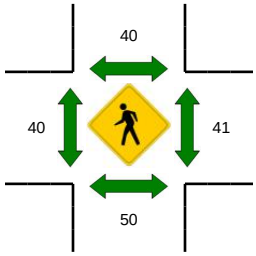
DATE: Wed, Jul 18 2012

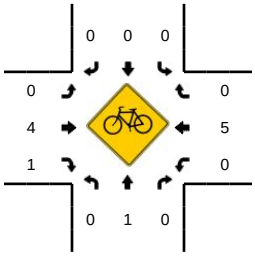


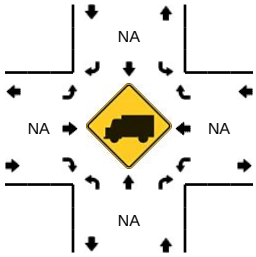
Peak-Hour: 4:00 PM -- 5:00 PM

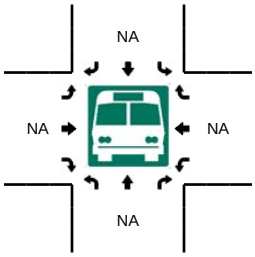
Peak 15-Min: 4:45 PM -- 5:00 PM











15-Min Count Period Beginning At	16th St NE (Northbound)				16th St NE (Southbound)				Benning Rd (Eastbound)				Benning Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	6	12	0	8	5	6	0	4	358	7	2	2	151	4	2	576	
4:15 PM	10	5	13	0	7	3	6	0	9	323	6	0	12	158	1	0	553	
4:30 PM	14	7	12	0	8	1	5	0	10	377	2	1	6	149	0	0	592	
4:45 PM	12	8	15	0	15	7	4	0	2	393	0	1	2	156	7	1	623	2344

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	32	60	0	60	28	16	0	8	1572	0	4	8	624	28	4	2492
Heavy Trucks	0	0	0		4	0	4		0	40	0		0	40	0		88
Pedestrians		48				28				36				56			168
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

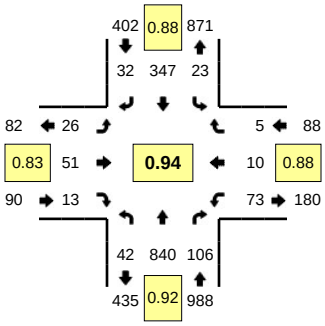
Method for determining peak hour: Total Entering Volume

LOCATION: Bladensburg Rd NE -- Maryland Ave

QC JOB #: 10786154

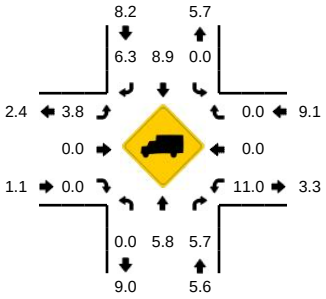
CITY/STATE: Washington, DC

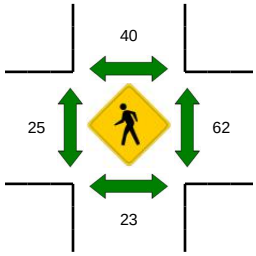
DATE: Wed, Jul 18 2012

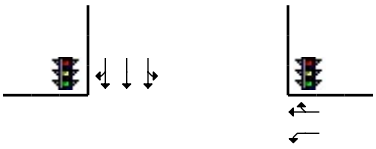


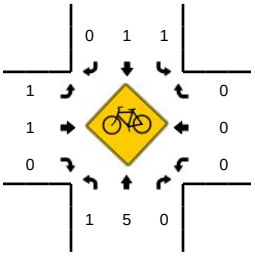
Peak-Hour: 4:00 PM -- 5:00 PM

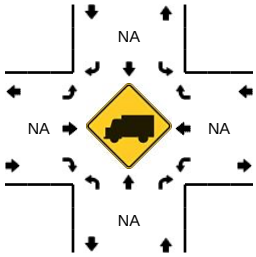
Peak 15-Min: 4:00 PM -- 4:15 PM

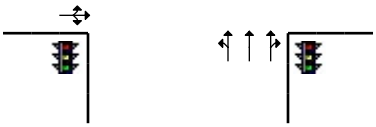


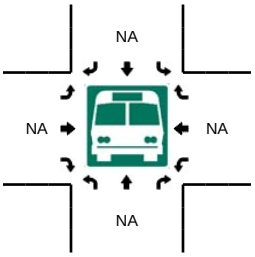












15-Min Count Period Beginning At	Bladensburg Rd NE (Northbound)				Bladensburg Rd NE (Southbound)				Maryland Ave (Eastbound)				Maryland Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	216	31	1	4	103	7	0	5	10	3	0	18	4	2	0	415	
4:15 PM	10	184	25	0	9	81	5	0	10	11	2	0	19	4	2	0	362	
4:30 PM	10	231	27	0	4	85	14	0	5	13	4	0	17	1	1	0	412	
4:45 PM	9	209	23	1	6	78	6	0	6	17	4	0	19	1	0	0	379	1568

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	864	124	4	16	412	28	0	20	40	12	0	72	16	8	0	1660
Heavy Trucks	0	48	8		0	52	0		0	0	0		4	0	0		112
Pedestrians		32				84				32				100			248
Bicycles	0	0	0		1	0	0		1	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

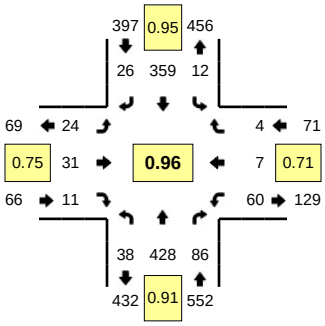
Method for determining peak hour: Total Entering Volume

LOCATION: Bladensburg Rd NE -- Maryland Ave

QC JOB #: 10786153

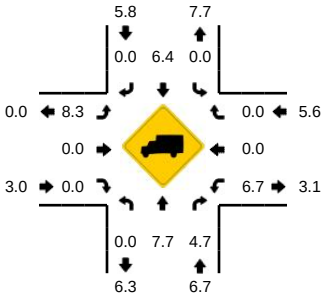
CITY/STATE: Washington, DC

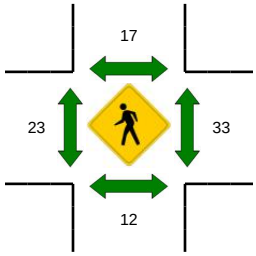
DATE: Wed, Jul 18 2012

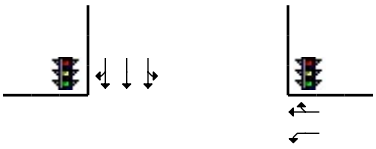


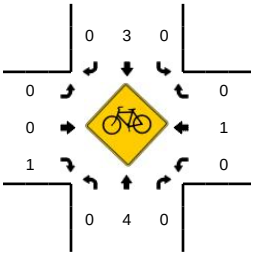
Peak-Hour: 12:00 PM -- 1:00 PM

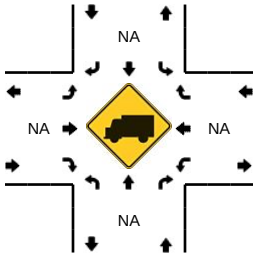
Peak 15-Min: 12:00 PM -- 12:15 PM

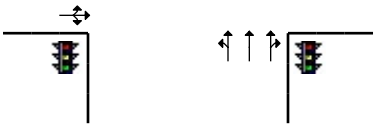


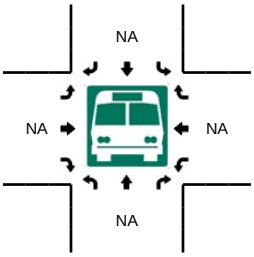












15-Min Count Period Beginning At	Bladensburg Rd NE (Northbound)				Bladensburg Rd NE (Southbound)				Maryland Ave (Eastbound)				Maryland Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
12:00 PM	13	109	22	1	3	94	3	0	6	7	1	0	20	4	1	0	284	
12:15 PM	6	111	33	1	4	86	5	0	8	10	4	0	13	1	2	0	284	
12:30 PM	9	98	16	0	3	88	7	0	6	5	3	0	10	1	0	0	246	
12:45 PM	8	110	15	0	2	91	11	0	4	9	3	0	17	1	1	0	272	1086

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	52	436	88	4	12	376	12	0	24	28	4	0	80	16	4	0	1136
Heavy Trucks	0	24	4		0	40	0		0	0	0		8	0	0		76
Pedestrians		16				28				32				24			100
Bicycles	0	1	0		0	0	0		0	0	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Type of peak hour being reported: Intersection Peak

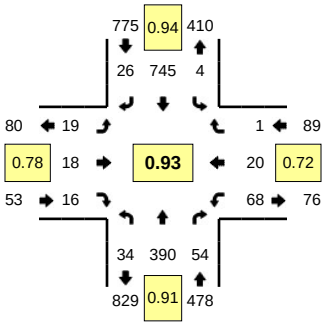
Method for determining peak hour: Total Entering Volume

LOCATION: Bladensburg Rd NE -- Maryland Ave

QC JOB #: 10786152

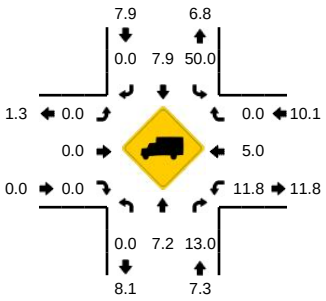
CITY/STATE: Washington, DC

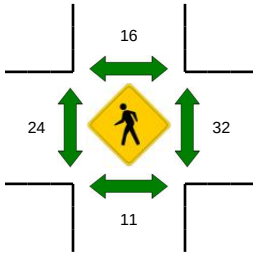
DATE: Wed, Jul 18 2012

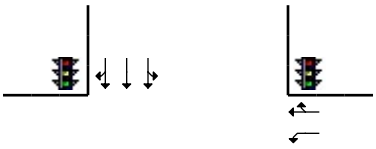


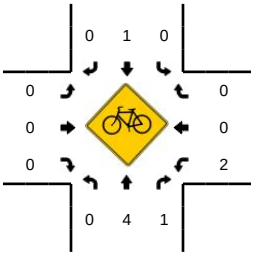
Peak-Hour: 7:30 AM -- 8:30 AM

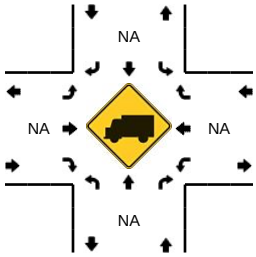
Peak 15-Min: 8:15 AM -- 8:30 AM

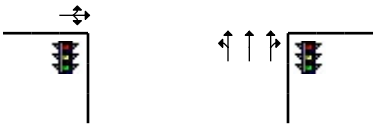


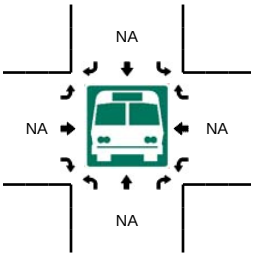












15-Min Count Period Beginning At	Bladensburg Rd NE (Northbound)				Bladensburg Rd NE (Southbound)				Maryland Ave (Eastbound)				Maryland Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:30 AM	7	86	11	0	1	180	2	0	6	2	4	0	6	5	1	0	311	
7:45 AM	8	91	13	0	0	179	5	0	6	6	5	0	20	5	0	0	338	
8:00 AM	9	114	9	0	0	196	6	0	6	5	4	0	18	3	0	0	370	
8:15 AM	10	99	21	0	3	190	13	0	1	5	3	0	24	7	0	0	376	1395

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	396	84	0	12	760	52	0	4	20	12	0	96	28	0	0	1504
Heavy Trucks	0	32	8		4	60	0		0	0	0		12	0	0		116
Pedestrians		8				8				20				24			60
Bicycles	0	0	0		0	1	0		0	0	0		2	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 7/24/2012 2:25 PM

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

Turning Counts Study - Field Sheet

Location:	Benning Road @ 17th Street, NE		
Date:	7/17/2012	Tuesday	
Recorder:	CSS		
Interval (dd) : (in Minutes)	15		

Weather: Sunny

PEAK HOURS	**AM PERIOD**	**7:00AM 9:00AM**	Start 07:45	End 08:45	Volume **3542**	**PM PERIOD**	**3:30PM-6:00PM**	Start 16:45	End 17:45	Volume **3079**

Street Name-->	17th St								Benning Rd				Benning Rd				
HOUR	**From North**				**From South**				**From East**				**From West**				**GRAND**
ENDING	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**TOTAL**
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
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04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	26	36	4	66	0	0	0	0	5	149	85	239	5	27	2	34	339
06:30	25	24	2	51	0	0	0	0	4	203	94	301	2	41	9	52	404
06:45	45	56	5	106	0	0	0	0	1	298	118	377	5	42	12	59	542
07:00	47	50	4	101	0	0	0	0	8	313	89	410	9	65	14	88	599
07:15	57	61	2	120	0	0	0	0	16	400	101	517	0	84	14	98	735
07:30	49	70	3	122	0	0	0	0	10	410	132	552	8	84	11	103	777
07:45	42	77	4	123	0	0	0	0	9	451	138	598	9	109	18	136	857
08:00	**84**	**85**	**6**	**175**	**0**	**0**	**0**	**0**	**7**	**403**	**106**	**516**	**14**	**88**	**28**	**130**	**821**
08:15	**52**	**96**	**10**	**158**	**0**	**0**	**0**	**0**	**19**	**489**	**124**	**632**	**11**	**108**	**26**	**145**	**935**
08:30	**69**	**113**	**2**	**184**	**0**	**0**	**0**	**0**	**17**	**436**	**120**	**573**	**15**	**126**	**23**	**164**	**921**
08:45	**51**	**83**	**9**	**143**	**0**	**0**	**0**	**0**	**8**	**440**	**125**	**573**	**7**	**115**	**27**	**149**	**865**
09:00	56	98	4	158	0	0	0	0	8	358	124	490	12	117	26	155	803
09:15	56	79	5	140	0	0	0	0	16	320	141	477	9	121	20	150	767
09:30	60	76	6	142	0	0	0	0	13	304	109	426	8	110	17	135	703
09:45	67	76	4	147	0	0	0	0	14	280	92	386	14	80	21	115	648
10:00	54	76	8	138	0	0	0	0	6	172	84	262	13	125	10	148	548
10:15	52	67	3	112	0	0	0	0	10	204	77	291	7	108	22	137	540
10:30	67	72	4	143	0	0	0	0	11	180	75	266	9	114	22	145	554
10:45	59	70	5	134	0	0	0	0	10	177	64	251	4	133	21	158	543
11:00	72	57	8	137	0	0	0	0	8	166	76	250	5	118	18	141	528
11:15	75	62	7	144	0	0	0	0	7	150	73	230	3	130	21	154	528
11:30	65	64	3	132	0	0	0	0	9	165	63	237	10	138	32	180	549
11:45	53	69	8	130	0	0	0	0	14	178	64	256	14	112	28	154	540
12:00	50	73	7	130	0	0	0	0	8	169	70	247	13	126	24	163	540
12:15	73	68	8	149	0	0	0	0	5	174	68	247	12	140	24	176	572
12:30	65	85	5	155	0	0	0	0	11	168	62	241	6	134	30	170	566
12:45	50	68	6	124	0	0	0	0	4	125	57	186	12	130	18	160	470
13:00	61	74	7	142	0	0	0	0	7	130	60	197	6	133	24	163	502
13:15	66	88	6	160	0	0	0	0	11	171	67	249	12	112	22	146	555
13:30	61	82	5	148	0	0	0	0	9	153	49	211	12	161	37	210	569
13:45	67	83	5	155	0	0	0	0	5	162	82	249	9	166	24	199	603
14:00	61	73	5	139	0	0	0	0	12	166	90	268	15	154	24	193	600
14:15	68	97	4	169	0	0	0	0	7	139	117	263	6	158	23	187	619
14:30	70	94	4	168	0	0	0	0	9	134	96	239	8	141	18	167	574
14:45	74	86	9	169	0	0	0	0	9	137	82	228	8	162	20	190	587
15:00	83	111	4	198	0	0	0	0	8	151	78	237	14	128	15	157	592
15:15	70	82	6	158	0	0	0	0	10	150	87	247	5	230	30	265	670
15:30	101	112	6	219	0	0	0	0	6	130	83	219	11	207	22	240	678
15:45	105	117	4	226	0	0	0	0	12	137	109	258	6	216	23	245	729
16:00	115	121	7	243	0	0	0	0	5	137	95	237	8	200	24	232	712
16:15	96	111	6	213	0	0	0	0	14	147	86	247	18	229	41	288	748
16:30	104	115	5	224	0	0	0	0	7	132	71	210	13	253	23	289	723
16:45	82	87	5	174	0	0	0	0	5	154	93	252	6	319	19	344	770
17:00	**115**	**106**	**4**	**225**	**0**	**0**	**0**	**0**	**8**	**144**	**55**	**207**	**4**	**311**	**23**	**338**	**770**
17:15	**105**	**108**	**4**	**217**	**0**	**0**	**0**	**0**	**10**	**148**	**73**	**231**	**4**	**306**	**14**	**324**	**772**
17:30	**113**	**88**	**5**	**206**	**0**	**0**	**0**	**0**	**4**	**122**	**67**	**193**	**2**	**322**	**12**	**336**	**735**
17:45	**110**	**118**	**4**	**232**	**0**	**0**	**0**	**0**	**7**	**132**	**95**	**234**	**3**	**326**	**7**	**336**	**802**
18:00	99	119	6	224	0	0	0	0	15	133	83	231	6	279	13	298	753
18:15	76	98	4	178	0	0	0	0	4	108	66	178	6	335	11	352	708
18:30	78	98	5	181	0	0	0	0	12	139	65	216	6	260	9	275	672
18:45	86	90	2	178	0	0	0	0	8	118	68	194	6	219	16	241	613
19:00	91	69	13	173	0	0	0	0	7	117	66	190	11	172	18	201	564
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	
TOTAL	**3678**	**4328**	**277**	**8283**	**0**	**0**	**0**	**0**	**469**	**10733**	**4514**	**15716**	**441**	**8324**	**1050**	**9815**	**33814**
AM Peak Vol	256	377	27	660	0	0	0	0	51	1768	475	2294	47	437	104	588	3542
PM Peak Vol	443	420	17	880	0	0	0	0	29	546	290	865	13	1265	56	1334	3079

Hour	17th St			0			Benning Rd			Benning Rd		
Ending	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
02:30												
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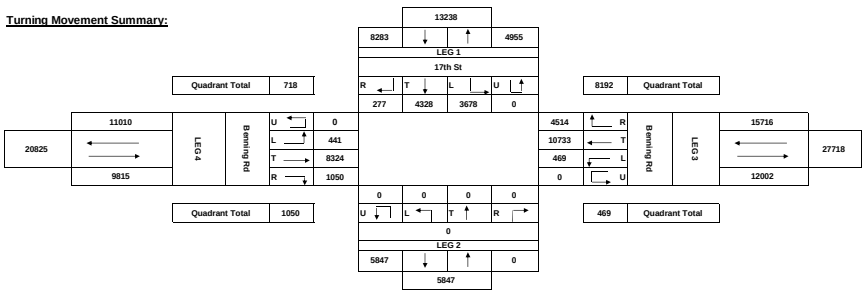
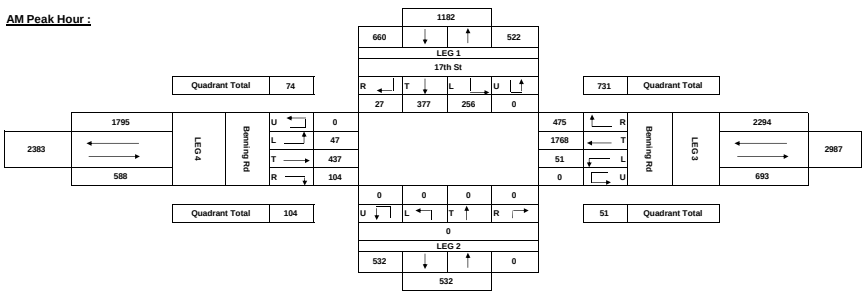
03:30												
03:45												
04:00												
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	1	1	0	0	0	0	2	2	0	0	4	0
06:30	1	1	0	1	2	0	4	5	0	0	1	0
06:45	0	3	0	0	3	0	1	5	0	0	1	0
07:00	0	3	0	0	1	0	0	2	0	4	5	0
07:15	0	6	0	0	3	0	2	5	0	2	5	0
07:30	0	5	0	0	1	0	1	6	0	0	1	0
07:45	0	4	0	0	6	0	1	8	0	0	5	0
08:00	0	4	0	0	2	0	2	4	**0**	0	7	**0**
08:15	0	5	0	0	4	0	2	3	**0**	0	6	**0**
08:30	0	6	0	0	5	0	1	5	**0**	0	16	**0**
08:45	0	4	0	0	8	0	0	6	**0**	1	12	**0**
09:00	0	10	0	0	1	0	3	3	0	1	13	0
09:15	0	5	0	0	3	0	0	7	0	1	9	0
09:30	0	10	0	0	5	0	1	5	0	0	6	0
09:45	0	6	0	0	5	0	0	3	0	0	11	0
10:00	0	2	0	1	1	0	1	5	0	0	3	0
10:15	0	5	0	0	1	0	0	10	0	0	7	0
10:30	0	2	0	0	2	0	1	2	0	0	4	0
10:45	0	3	0	0	3	0	3	2	0	1	6	0
11:00	1	1	0	0	7	0	1	7	0	0	10	0
11:15	0	8	0	0	4	0	1	6	0	0	2	0
11:30	1	4	0	0	5	0	1	5	0	1	16	0
11:45	0	5	0	1	10	0	0	7	0	1	7	0
12:00	0	7	0	0	5	0	0	8	0	0	9	0
12:15	0	3	0	0	4	0	1	6	0	1	8	0
12:30	0	1	0	0	9	0	1	9	0	0	11	0
12:45	0	0	0	0	1	0	0	2	0	1	16	0
13:00	0	0	0	0	2	0	1	3	0	1	8	0
13:15	0	0	0	0	6	0	3	1	0	1	13	0
13:30	0	12	0	0	2	0	0	2	0	0	6	0
13:45	0	2	0	0	7	0	0	16	0	2	10	0
14:00	0	2	0	0	5	0	0	2	0	1	4	0
14:15	0	5	0	0	2	0	1	9	0	2	4	0
14:30	1	6	0	0	1	0	1	3	0	1	3	0
14:45	0	2	0	0	4	0	0	1	0	0	3	0
15:00	0	2	0	0	8	0	0	3	0	2	3	0
15:15	0	1	0	0	9	0	0	7	0	0	5	0
15:30	2	4	0	1	5	0	0	17	0	4	4	0
15:45	0	0	0	2	3	0	0	7	0	1	8	0
16:00	0	0	0	0	6	0	2	4	0	1	10	0
16:15	0	11	0	0	6	0	0	6	0	1	14	0
16:30	0	3	0	0	3	0	0	10	0	0	4	0
16:45	0	0	0	0	7	0	0	3	0	1	5	0
17:00	0	0	0	0	12	0	0	4	**0**	0	0	**0**
17:15	0	0	0	0	4	0	1	8	**0**	0	0	**0**
17:30	0	0	0	0	11	0	0	2	**0**	0	0	**0**
17:45	0	0	0	0	2	0	1	0	**0**	1	0	**0**
18:00	0	1	0	0	0	0	0	0	0	0	2	0
18:15	0	1	0	0	2	0	2	1	0	0	5	0
18:30	0	3	0	0	0	0	1	0	0	0	0	0
18:45	0	2	0	0	6	0	1	4	0	0	0	0
19:00	0	1	0	0	5	0	1	0	0	1	6	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**7**	**172**	**0**	**6**	**219**	**0**	**45**	**251**	**0**	**34**	**318**	**0**
AM Peak Vol	0	19	0	0	19	0	5	18	0	1	41	0
PM Peak Vol	0	0	0	0	29	0	2	14	0	1	0	0

Turning Movement Summary:

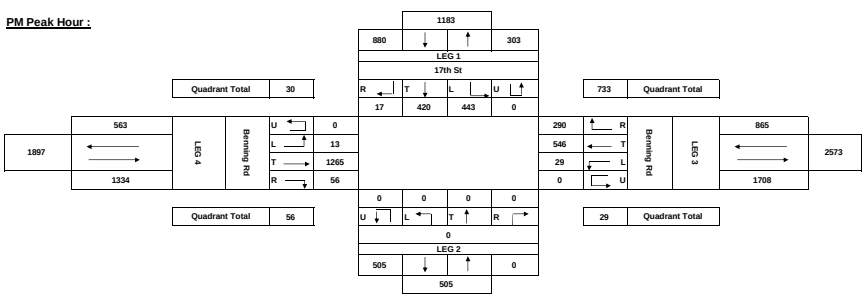


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



Turning Counts Study - Field Sheet

Location:	Benning Road @ 19th Street, NE		
Date:	7/17/2012	Tuesday	
Recorder:	CSS		**Weather:** Sunny
Interval (dd) : (in Minutes)	15		

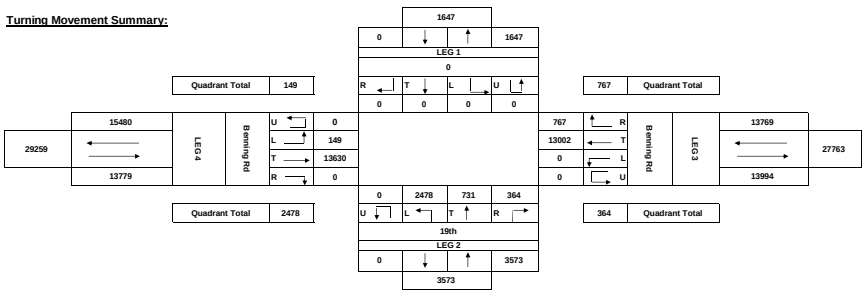
PEAK HOURS	**AM PERIOD**	**7:00AM - 9:00AM**	Start 08:00	End 09:00	Volume **3034**	**PM PERIOD**	**3:30PM-6:00PM**	Start 16:45	End 17:45	Volume **3261**

Street Name-->					19th				Benning Rd				Benning Rd				
HOUR	**From North**				**From South**				**From East**				**From West**				**GRAND**
ENDING	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**TOTAL**
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
02:45																	
03:00																	
03:15																	
03:30																	
03:45																	
04:00																	
04:15																	
04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	0	0	0	0	25	11	1	37	0	209	9	218	0	35	0	35	290
06:30	0	0	0	0	54	13	4	71	0	246	33	279	3	62	0	65	415
06:45	0	0	0	0	43	5	3	51	0	282	13	295	0	60	0	60	406
07:00	0	0	0	0	58	14	3	75	0	309	14	323	0	114	0	114	512
07:15	0	0	0	0	44	13	2	59	0	359	13	372	3	111	0	114	545
07:30	0	0	0	0	67	15	5	87	0	424	12	436	0	152	0	152	675
07:45	0	0	0	0	67	15	7	89	0	458	13	471	2	118	0	120	680
08:00	0	0	0	0	58	11	11	80	0	463	14	477	0	174	0	174	731
08:15	**0**	**0**	**0**	**0**	**74**	**23**	**12**	**109**	**0**	**504**	**22**	**526**	**2**	**162**	**0**	**164**	**799**
08:30	**0**	**0**	**0**	**0**	**76**	**31**	**6**	**113**	**0**	**452**	**24**	**476**	**1**	**171**	**0**	**172**	**761**
08:45	**0**	**0**	**0**	**0**	**67**	**13**	**5**	**85**	**0**	**470**	**19**	**489**	**2**	**157**	**0**	**159**	**733**
09:00	**0**	**0**	**0**	**0**	**66**	**16**	**9**	**91**	**0**	**453**	**19**	**472**	**2**	**176**	**0**	**178**	**741**
09:15	0	0	0	0	82	16	6	104	0	392	15	407	3	165	0	168	679
09:30	0	0	0	0	53	13	6	72	0	366	15	381	1	174	0	175	628
09:45	0	0	0	0	51	11	9	71	0	324	20	344	1	156	0	157	572
10:00	0	0	0	0	61	9	10	80	0	245	12	257	2	176	0	178	515
10:15	0	0	0	0	46	11	7	64	0	219	14	233	4	165	0	169	466
10:30	0	0	0	0	35	13	7	55	0	224	12	236	1	192	0	193	484
10:45	0	0	0	0	38	10	6	54	0	214	6	220	6	194	0	200	474
11:00	0	0	0	0	39	11	8	58	0	237	9	246	2	201	0	203	507
11:15	0	0	0	0	35	8	9	52	0	217	16	233	1	188	0	189	474
11:30	0	0	0	0	33	17	3	53	0	208	7	215	1	209	0	210	478
11:45	0	0	0	0	40	5	6	51	0	227	15	242	4	181	0	185	478
12:00	0	0	0	0	53	12	1	66	0	221	13	234	3	205	0	208	508
12:15	0	0	0	0	56	19	4	79	0	215	14	229	4	224	0	228	536
12:30	0	0	0	0	37	12	14	63	0	236	12	248	2	212	0	214	525
12:45	0	0	0	0	47	12	11	70	0	219	12	231	8	191	0	199	500
13:00	0	0	0	0	40	24	7	71	0	209	24	233	1	225	0	226	530
13:15	0	0	0	0	43	17	12	72	0	217	16	233	11	207	0	218	523
13:30	0	0	0	0	54	14	15	83	0	198	15	213	3	263	0	266	562
13:45	0	0	0	0	41	13	5	59	0	215	11	226	5	217	0	222	507
14:00	0	0	0	0	44	19	7	70	0	195	13	208	1	256	0	257	535
14:15	0	0	0	0	48	13	3	64	0	210	11	221	3	230	0	233	518
14:30	0	0	0	0	59	12	7	78	0	210	14	224	4	246	0	250	552
14:45	0	0	0	0	50	17	2	69	0	183	15	198	3	296	0	299	566
15:00	0	0	0	0	37	10	7	54	0	202	17	219	2	285	0	287	560
15:15	0	0	0	0	43	8	18	69	0	192	24	216	4	311	0	315	600
15:30	0	0	0	0	48	16	6	70	0	228	12	240	9	297	0	306	616
15:45	0	0	0	0	57	13	7	77	0	180	17	197	1	357	0	358	632
16:00	0	0	0	0	41	22	9	72	0	204	16	220	6	344	0	350	642
16:15	0	0	0	0	44	13	13	70	0	185	17	202	5	401	0	406	678
16:30	0	0	0	0	52	18	8	78	0	201	15	216	0	425	0	425	719
16:45	0	0	0	0	53	10	5	68	0	172	17	189	4	458	0	462	719
17:00	**0**	**0**	**0**	**0**	**41**	**14**	**13**	**68**	**0**	**162**	**14**	**176**	**3**	**521**	**0**	**524**	**768**
17:15	**0**	**0**	**0**	**0**	**43**	**24**	**9**	**76**	**0**	**161**	**14**	**175**	**2**	**617**	**0**	**619**	**870**
17:30	**0**	**0**	**0**	**0**	**17**	**16**	**4**	**37**	**0**	**140**	**17**	**157**	**4**	**646**	**0**	**650**	**844**
17:45	**0**	**0**	**0**	**0**	**25**	**12**	**5**	**42**	**0**	**126**	**9**	**135**	**7**	**595**	**0**	**602**	**779**
18:00	0	0	0	0	38	16	4	58	0	204	15	219	2	441	0	443	720
18:15	0	0	0	0	43	12	4	59	0	154	18	172	2	526	0	528	759
18:30	0	0	0	0	32	12	9	53	0	158	12	170	2	426	0	428	651
18:45	0	0	0	0	44	13	5	62	0	151	6	157	2	400	0	402	621
19:00	0	0	0	0	36	14	5	55	0	152	11	163	5	315	0	320	538
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	

TOTAL	**0**	**0**	**0**	**0**	**2478**	**731**	**364**	**3573**	**0**	**13002**	**767**	**13769**	**149**	**13630**	**0**	**13779**	**31121**
AM Peak Vol	0	0	0	0	283	83	32	398	0	1879	84	1963	7	666	0	673	3034
PM Peak Vol	0	0	0	0	126	66	31	223	0	589	54	643	16	2379	0	2395	3261

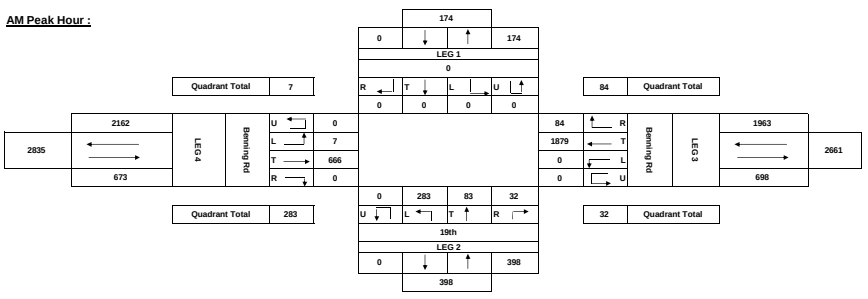
Hour	0			19th			Benning Rd			Benning Rd		
Ending	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
02:30												
02:45												
03:00												
03:15												
03:30												
03:45												
04:00												
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	0	1	0	0	1	0	0	0	0	0	2	0
06:30	0	0	0	1	3	0	1	0	0	1	0	0
06:45	0	2	0	0	4	0	5	2	0	0	5	0
07:00	0	4	0	0	7	0	1	0	0	1	5	0
07:15	0	5	0	0	4	0	0	3	0	2	4	0
07:30	0	1	0	0	3	0	2	2	0	0	9	0
07:45	0	3	0	0	4	0	2	4	0	0	11	0
08:00	0	3	0	0	2	0	2	7	0	0	8	0
08:15	**0**	**7**	**0**	**0**	**4**	**0**	**5**	**9**	**0**	**2**	**12**	**0**
08:30	**0**	**6**	**0**	**0**	**2**	**0**	**1**	**12**	**0**	**0**	**13**	**0**
08:45	**1**	**5**	**0**	**0**	**6**	**0**	**1**	**4**	**0**	**1**	**7**	**0**
09:00	**0**	**5**	**0**	**0**	**3**	**0**	**0**	**2**	**0**	**1**	**8**	**0**
09:15	0	9	0	1	8	0	3	10	0	0	2	0
09:30	0	3	0	0	2	0	0	8	0	0	9	0
09:45	0	2	0	0	1	0	1	5	0	1	7	0
10:00	0	1	0	0	2	0	1	4	0	0	2	0
10:15	0	1	0	0	1	0	0	5	0	1	7	0
10:30	0	1	0	0	3	0	2	10	0	0	6	0
10:45	0	1	0	0	2	0	3	4	0	1	3	0
11:00	1	2	0	0	1	0	2	6	0	2	8	0
11:15	0	2	0	0	3	0	0	5	0	2	8	0
11:30	0	1	0	0	4	0	1	4	0	0	6	0
11:45	1	1	0	0	4	0	0	13	0	2	4	0
12:00	0	3	0	0	1	0	2	13	0	0	3	0
12:15	1	4	0	1	2	0	0	4	0	2	8	0
12:30	0	8	0	0	2	0	1	6	0	0	7	0
12:45	0	5	0	0	0	0	1	3	0	2	3	0
13:00	1	4	0	0	3	0	0	3	0	2	9	0
13:15	0	1	0	0	7	0	2	11	0	3	9	0
13:30	0	1	0	0	8	0	0	3	0	2	7	0
13:45	0	7	0	0	6	0	0	4	0	1	8	0
14:00	0	3	0	0	9	0	1	3	0	1	2	0
14:15	0	9	0	0	0	0	2	5	0	3	2	0
14:30	0	3	0	1	4	0	2	6	0	1	6	0
14:45	0	4	0	0	3	0	3	11	0	2	8	0
15:00	0	6	0	0	6	0	2	6	0	2	13	0
15:15	0	5	0	2	1	0	3	9	0	1	9	0
15:30	0	7	0	0	3	0	1	11	0	8	5	0
15:45	0	6	0	0	2	0	1	4	0	1	5	0
16:00	0	7	0	0	5	0	4	1	0	2	4	0
16:15	2	4	0	1	4	0	0	2	0	2	6	0
16:30	0	7	0	0	3	0	1	12	0	0	7	0
16:45	1	2	0	0	6	0	1	5	0	0	3	0
17:00	**2**	**6**	**0**	**0**	**2**	**0**	**0**	**11**	**0**	**0**	**3**	**0**
17:15	**1**	**9**	**0**	**0**	**2**	**0**	**1**	**5**	**0**	**2**	**2**	**0**
17:30	**1**	**8**	**0**	**0**	**6**	**0**	**1**	**11**	**0**	**2**	**1**	**0**
17:45	**0**	**3**	**0**	**1**	**5**	**0**	**0**	**10**	**0**	**0**	**1**	**0**
18:00	0	6	0	0	7	0	1	19	0	0	3	0
18:15	0	7	0	0	5	0	0	3	0	2	4	0
18:30	0	3	0	0	3	0	0	15	0	0	2	0
18:45	0	4	0	0	5	0	2	10	0	2	4	0
19:00	0	8	0	0	2	0	1	4	0	2	4	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**12**	**210**	**0**	**8**	**186**	**0**	**66**	**329**	**0**	**62**	**294**	**0**
AM Peak Vol	1	23	0	0	15	0	7	27	0	4	40	0
PM Peak Vol	4	20	0	1	15	0	2	37	0	4	7	0

Turning Movement Summary:

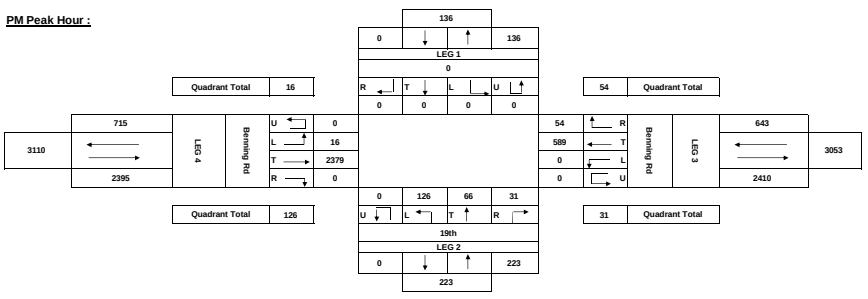


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



Turning Counts Study - Field Sheet

Location:	Benning Road @ 21st Street, NE		
Date:	7/18/2012	Wednesday	
Recorder:	CSS		
Interval (dd) : (in Minutes)	15		

Weather: Sunny

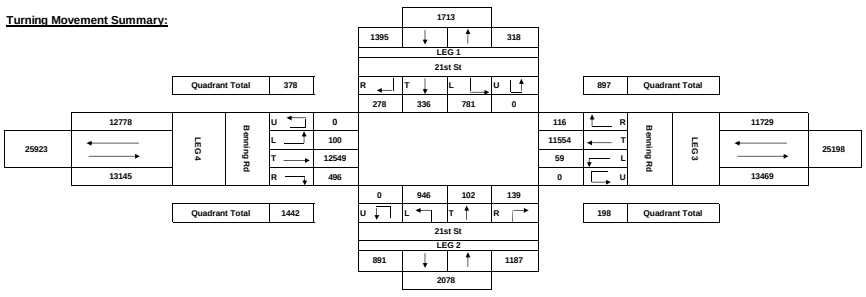
PEAK HOURS	**AM PERIOD**	**7:00AM - 9:00AM**	Start 07:45	End 08:45	Volume **2962**	**PM PERIOD**	**3:30PM-6:00PM**	Start 16:45	End 17:45	Volume **2812**

Street Name-->	21st St				21st St				Benning Rd				Benning Rd				
HOUR	**From North**				**From South**				**From East**				**From West**				**GRAND**
ENDING	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**TOTAL**
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
02:45																	
03:00																	
03:15																	
03:30																	
03:45																	
04:00																	
04:15																	
04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	4	5	1	10	9	2	0	11	0	187	1	188	0	56	1	57	266
06:30	5	0	4	9	12	0	1	13	0	233	0	233	0	62	1	63	318
06:45	5	5	1	11	27	1	0	28	1	280	0	281	0	89	2	91	411
07:00	8	3	3	14	19	0	1	20	1	324	0	325	0	88	2	90	449
07:15	6	10	5	21	35	0	2	37	1	351	3	355	0	122	5	127	540
07:30	10	3	9	22	29	1	2	32	3	372	1	376	1	126	4	131	561
07:45	7	6	5	18	33	0	1	34	1	469	2	472	0	136	7	143	667
08:00	**13**	**5**	**1**	**19**	**41**	**2**	**1**	**44**	**3**	**519**	**3**	**525**	**4**	**162**	**7**	**173**	**761**
08:15	**13**	**5**	**4**	**22**	**33**	**6**	**2**	**41**	**2**	**486**	**2**	**490**	**1**	**166**	**10**	**177**	**730**
08:30	**14**	**12**	**5**	**31**	**51**	**5**	**1**	**57**	**1**	**469**	**3**	**473**	**4**	**155**	**10**	**169**	**730**
08:45	**15**	**6**	**7**	**28**	**41**	**1**	**2**	**44**	**2**	**447**	**3**	**452**	**1**	**209**	**7**	**217**	**741**
09:00	8	4	7	19	39	3	1	43	1	411	1	413	0	157	10	167	642
09:15	15	5	5	25	35	0	0	35	0	354	4	358	3	156	16	175	593
09:30	17	7	3	27	21	3	3	27	0	259	3	262	1	158	5	164	480
09:45	15	5	6	26	19	1	1	21	3	277	2	282	4	187	11	202	531
10:00	17	4	8	29	19	0	0	19	1	210	1	212	1	163	8	172	432
10:15	22	5	4	31	14	1	2	17	0	207	2	209	1	149	7	157	414
10:30	8	9	6	23	15	1	2	18	0	181	4	185	3	167	8	178	404
10:45	13	2	0	15	14	2	3	19	1	174	2	177	0	177	6	183	394
11:00	12	6	6	24	11	2	3	16	0	191	2	193	1	154	5	160	393
11:15	8	1	3	12	11	2	5	18	3	201	0	204	2	169	4	175	409
11:30	14	6	7	27	13	0	2	15	0	108	1	109	2	189	6	197	348
11:45	15	2	5	22	15	0	2	17	0	167	4	171	3	189	6	198	408
12:00	12	2	8	22	8	1	1	10	0	169	2	171	6	200	12	218	421
12:15	11	9	9	29	11	1	2	14	3	192	3	198	6	190	8	204	445
12:30	12	5	5	22	11	2	1	14	5	183	2	190	0	232	9	241	467
12:45	10	8	5	23	18	5	2	25	2	141	1	144	0	204	19	223	415
13:00	10	12	5	27	10	4	5	19	1	179	4	184	1	218	9	228	458
13:15	14	4	8	26	15	2	3	20	2	157	5	164	3	237	10	250	460
13:30	17	4	6	27	10	2	3	15	0	161	3	164	1	219	10	230	436
13:45	16	9	5	30	13	1	6	20	2	182	3	187	0	237	9	246	483
14:00	16	7	9	32	12	0	3	15	2	169	6	177	2	211	13	226	450
14:15	14	8	2	24	11	2	0	13	2	144	3	149	4	248	5	257	443
14:30	25	6	8	39	14	15	6	35	0	194	2	196	2	233	6	241	511
14:45	14	9	9	32	17	1	1	19	1	198	0	199	3	286	15	304	554
15:00	18	6	2	26	20	1	2	23	2	228	4	234	3	283	12	298	581
15:15	21	5	8	34	9	2	2	13	1	190	1	192	3	264	11	278	517
15:30	20	5	3	28	9	3	3	15	0	169	3	172	1	317	20	338	553
15:45	27	6	9	42	15	1	4	20	0	147	5	152	2	323	7	332	546
16:00	18	8	5	31	19	0	4	23	3	185	1	189	4	366	10	380	623
16:15	22	8	7	37	11	3	5	19	1	152	3	156	4	379	8	391	603
16:30	9	10	4	23	14	2	5	21	2	197	1	190	4	388	14	406	640
16:45	26	10	5	41	23	2	1	26	0	151	2	153	1	389	8	398	618
17:00	**24**	**9**	**11**	**44**	**11**	**1**	**9**	**21**	**1**	**156**	**3**	**160**	**4**	**501**	**24**	**529**	**754**
17:15	**17**	**14**	**5**	**36**	**20**	**3**	**5**	**28**	**1**	**149**	**2**	**152**	**0**	**430**	**18**	**448**	**664**
17:30	**25**	**11**	**2**	**38**	**13**	**4**	**1**	**18**	**1**	**162**	**3**	**166**	**5**	**499**	**16**	**520**	**742**
17:45	**21**	**6**	**3**	**30**	**11**	**1**	**6**	**18**	**0**	**143**	**2**	**145**	**1**	**444**	**14**	**459**	**652**
18:00	18	8	11	37	15	3	4	22	1	134	1	136	3	456	11	470	665
18:15	29	9	2	40	15	3	1	19	1	120	0	121	2	426	11	439	619
18:30	16	6	7	29	7	1	5	13	1	118	3	122	0	373	17	390	554
18:45	21	14	7	42	14	1	6	21	0	89	1	90	2	334	13	349	502
19:00	14	2	3	19	14	2	6	22	0	128	3	131	1	276	9	286	458
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	

TOTAL	**781**	**336**	**278**	**1395**	**946**	**102**	**139**	**1187**	**59**	**11554**	**116**	**11729**	**100**	**12549**	**496**	**13145**	**27456**
AM Peak Vol	55	28	17	100	166	14	6	186	8	1921	11	1940	10	692	34	736	2962
PM Peak Vol	87	40	21	148	55	9	21	85	3	610	10	623	10	1874	72	1956	2812

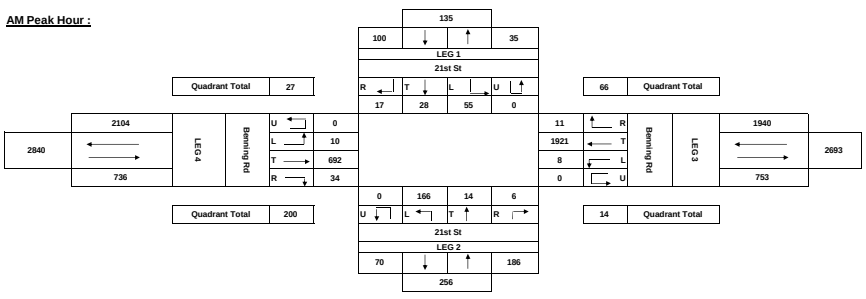
Hour	21st St			21st St			Benning Rd			Benning Rd		
Ending	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
02:30												
02:45												
03:00												
03:15												
03:30												
03:45												
04:00												
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	0	2	0	0	2	0	1	2	0	0	0	0
06:30	0	2	0	0	0	0	0	2	0	2	1	0
06:45	0	4	0	0	1	0	0	2	0	0	0	0
07:00	0	2	0	0	2	0	3	5	0	1	1	0
07:15	0	5	0	0	1	0	1	2	0	1	3	0
07:30	2	3	0	0	0	0	1	2	0	0	5	0
07:45	2	4	0	0	0	0	0	1	0	2	0	0
08:00	0	5	0	0	0	0	2	1	**0**	1	1	**0**
08:15	2	2	0	0	1	0	3	2	**0**	0	2	**0**
08:30	0	3	0	0	6	0	1	5	**0**	1	6	**0**
08:45	0	2	0	0	0	0	2	1	**0**	1	1	**0**
09:00	0	2	0	0	2	0	1	1	0	0	0	0
09:15	1	6	0	0	3	0	3	2	0	0	4	0
09:30	0	2	0	0	3	0	3	6	0	1	4	0
09:45	0	2	0	0	4	0	1	9	0	0	11	0
10:00	0	4	0	0	2	0	4	7	0	0	4	0
10:15	0	1	0	0	1	0	1	3	0	2	5	0
10:30	0	4	0	0	2	0	0	2	0	1	3	0
10:45	0	9	0	0	1	0	2	5	0	6	8	0
11:00	0	1	0	0	1	0	1	3	0	3	0	0
11:15	0	4	0	0	1	0	0	1	0	1	4	0
11:30	0	3	0	0	0	0	3	4	0	0	5	0
11:45	0	4	0	0	3	0	4	3	0	0	11	0
12:00	0	5	0	0	0	0	0	2	0	2	2	0
12:15	0	4	0	0	2	0	0	5	0	2	6	0
12:30	0	3	0	0	1	0	3	0	0	3	12	0
12:45	0	1	0	0	0	0	2	4	0	2	6	0
13:00	0	2	0	0	0	0	0	2	0	0	10	0
13:15	0	4	0	0	1	0	0	3	0	0	5	0
13:30	0	2	0	0	0	0	0	5	0	2	3	0
13:45	0	2	0	0	0	0	0	10	0	0	2	0
14:00	0	2	0	0	0	0	0	5	0	2	11	0
14:15	0	3	0	0	1	0	0	5	0	1	7	0
14:30	0	3	0	0	0	0	1	0	0	1	3	0
14:45	0	1	0	0	1	0	2	2	0	2	3	0
15:00	0	4	0	0	0	0	1	10	0	1	8	0
15:15	0	4	0	0	8	0	1	1	0	1	5	0
15:30	0	2	0	0	0	0	2	1	0	0	10	0
15:45	0	2	0	0	1	0	1	1	0	2	2	0
16:00	0	1	0	1	2	0	0	9	0	1	9	0
16:15	0	4	0	1	2	0	1	3	0	1	11	0
16:30	0	3	0	0	3	0	0	6	0	0	9	0
16:45	0	1	0	0	2	0	0	0	0	2	4	0
17:00	0	2	0	0	0	0	2	2	**0**	1	5	**0**
17:15	0	0	0	0	1	0	0	0	**0**	1	10	**0**
17:30	0	2	0	0	0	0	1	0	**0**	3	2	**0**
17:45	0	2	0	0	2	0	1	3	**0**	0	7	**0**
18:00	1	3	0	0	1	0	0	6	0	5	6	0
18:15	0	3	0	0	2	0	0	7	0	0	7	0
18:30	0	2	0	0	2	0	2	2	0	0	10	0
18:45	0	3	0	0	1	0	0	0	0	2	12	0
19:00	0	1	0	0	1	0	1	5	0	1	4	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**8**	**147**	**0**	**2**	**70**	**0**	**58**	**170**	**0**	**61**	**270**	**0**
AM Peak Vol	2	12	0	0	7	0	8	9	0	3	10	0
PM Peak Vol	0	6	0	0	3	0	4	5	0	5	24	0

Turning Movement Summary:

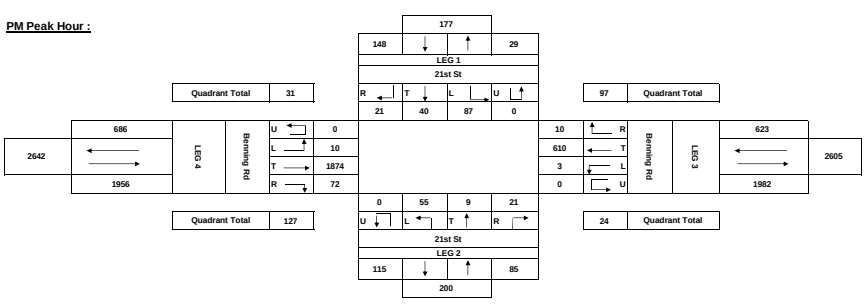


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



Turning Counts Study - Field Sheet

Location:	Benning Road @ 24th Street, NE		
Date:	7/18/2012	Wednesday	
Recorder:	CSS		**Weather:** Sunny
Interval (dd) : (in Minutes)	15		

PEAK HOURS	AM PERIOD	7:00AM - 9:00AM	Start	End	Volume	PM PERIOD	3:30PM-6:00PM	Start	End	Volume
			08:00	09:00	2812			17:30	18:30	2966

Street Name-->					24th St				Benning Rd				Benning Rd				
HOUR	From North				From South				From East				From West				**GRAND**
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	**TOTAL**
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
02:45																	
03:00																	
03:15																	
03:30																	
03:45																	
04:00																	
04:15																	
04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	0	0	0	0	1	0	0	1	0	212	0	212	0	58	0	58	271
06:30	0	0	0	0	0	0	1	1	0	224	0	224	0	67	0	67	292
06:45	0	0	0	0	1	0	3	4	0	285	0	285	0	86	0	86	375
07:00	0	0	0	0	1	0	2	3	0	325	0	325	0	102	0	102	430
07:15	0	0	0	0	1	0	1	2	0	410	0	410	0	111	0	111	523
07:30	0	0	0	0	2	0	3	5	0	415	0	415	0	140	0	140	560
07:45	0	0	0	0	5	0	2	7	0	508	0	508	0	134	0	134	649
08:00	0	0	0	0	5	0	3	8	0	490	0	490	0	180	0	180	678
08:15	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**4**	**0**	**540**	**0**	**540**	**0**	**200**	**0**	**200**	**744**
08:30	**0**	**0**	**0**	**0**	**4**	**0**	**1**	**5**	**0**	**510**	**0**	**510**	**0**	**216**	**0**	**216**	**731**
08:45	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**4**	**0**	**462**	**0**	**462**	**0**	**191**	**0**	**191**	**657**
09:00	**0**	**0**	**0**	**0**	**5**	**0**	**4**	**9**	**0**	**491**	**0**	**491**	**0**	**180**	**0**	**180**	**680**
09:15	0	0	0	0	4	0	2	6	0	377	0	377	0	178	0	178	561
09:30	0	0	0	0	3	0	0	3	0	317	0	317	0	184	0	184	504
09:45	0	0	0	0	4	0	1	5	0	296	0	296	0	208	0	208	509
10:00	0	0	0	0	1	0	1	2	0	282	0	282	0	193	0	193	477
10:15	0	0	0	0	3	0	0	3	0	249	0	249	0	178	0	178	430
10:30	0	0	0	0	1	0	2	3	0	225	0	225	0	218	0	218	446
10:45	0	0	0	0	4	0	3	7	0	209	0	209	0	178	0	178	394
11:00	0	0	0	0	2	0	2	4	0	215	0	215	0	180	0	180	399
11:15	0	0	0	0	1	0	2	3	0	209	0	209	0	177	0	177	389
11:30	0	0	0	0	3	0	1	4	0	184	0	184	0	198	0	198	386
11:45	0	0	0	0	2	0	0	2	0	202	0	202	0	244	0	244	448
12:00	0	0	0	0	4	0	1	5	0	233	0	233	0	184	0	184	422
12:15	0	0	0	0	5	0	5	10	0	212	0	212	0	193	0	193	415
12:30	0	0	0	0	6	0	1	7	0	223	0	223	0	227	0	227	457
12:45	0	0	0	0	0	0	0	0	0	175	0	175	0	234	0	234	409
13:00	0	0	0	0	5	0	3	8	0	197	0	197	0	233	0	233	438
13:15	0	0	0	0	8	0	1	9	0	205	0	205	0	238	0	238	452
13:30	0	0	0	0	2	0	1	3	0	189	0	189	0	232	0	232	424
13:45	0	0	0	0	2	0	2	4	0	238	0	238	0	259	0	259	501
14:00	0	0	0	0	1	0	1	2	0	197	0	197	0	232	0	232	431
14:15	0	0	0	0	3	0	4	7	0	222	0	222	0	262	0	262	491
14:30	0	0	0	0	1	0	1	2	0	219	0	219	0	248	0	248	469
14:45	0	0	0	0	4	0	5	9	0	206	0	206	0	245	0	245	460
15:00	0	0	0	0	6	0	2	8	0	201	0	201	0	319	0	319	528
15:15	0	0	0	0	6	0	5	11	0	188	0	188	0	322	0	322	521
15:30	0	0	0	0	3	0	2	5	0	148	0	148	0	286	0	286	439
15:45	0	0	0	0	9	0	1	10	0	175	0	175	0	378	0	378	563
16:00	0	0	0	0	2	0	1	3	0	166	0	166	0	391	0	391	560
16:15	0	0	0	0	4	0	4	8	0	215	0	215	0	401	0	401	624
16:30	0	0	0	0	0	0	3	3	0	200	0	200	0	451	0	451	654
16:45	0	0	0	0	2	0	5	7	0	197	0	197	0	445	0	445	649
17:00	0	0	0	0	1	0	7	8	0	167	0	167	0	568	0	568	743
17:15	0	0	0	0	0	0	3	3	0	160	0	160	0	544	0	544	707
17:30	0	0	0	0	5	0	1	6	0	203	0	203	0	500	0	500	709
17:45	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**153**	**0**	**153**	**0**	**584**	**0**	**584**	**738**
18:00	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**6**	**0**	**153**	**0**	**153**	**0**	**575**	**0**	**575**	**734**
18:15	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**4**	**0**	**160**	**0**	**160**	**0**	**530**	**0**	**530**	**694**
18:30	**0**	**0**	**0**	**0**	**2**	**0**	**3**	**5**	**0**	**161**	**0**	**161**	**0**	**634**	**0**	**634**	**800**
18:45	0	0	0	0	1	0	1	2	0	164	0	164	0	542	0	542	708
19:00	0	0	0	0	0	0	4	4	0	184	0	184	0	379	0	379	567
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	
TOTAL	**0**	**0**	**0**	**0**	**145**	**0**	**110**	**255**	**0**	**13148**	**0**	**13148**	**0**	**14437**	**0**	**14437**	**27840**
AM Peak Vol	0	0	0	0	14	0	8	22	0	2003	0	2003	0	787	0	787	2812
PM Peak Vol	0	0	0	0	7	0	9	16	0	627	0	627	0	2323	0	2323	2966

Hour Ending	0			24th St			Benning Rd			Benning Rd		
	Bikes	PED.	U.T.	Bikes	PED.	U.T.	Bikes	PED.	U.T.	Bikes	PED.	U.T.
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
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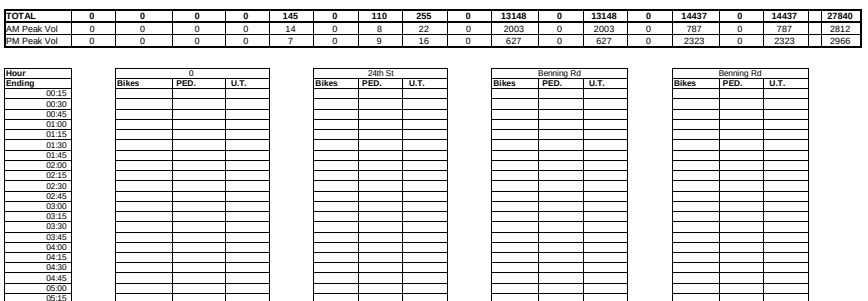
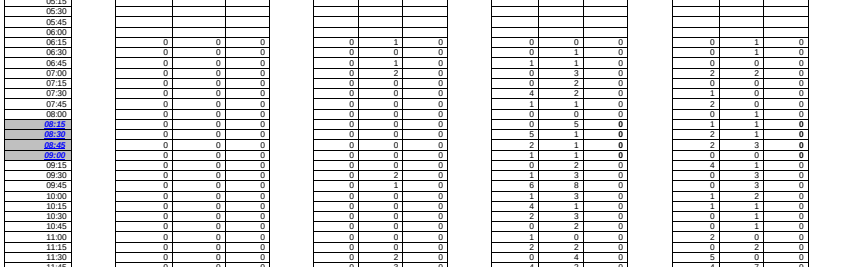
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	0	0	0	0	1	0	0	0	0	0	1	0
06:30	0	0	0	0	0	0	0	1	0	0	1	0
06:45	0	0	0	0	1	0	1	1	0	0	0	0
07:00	0	0	0	0	2	0	0	3	0	2	2	0
07:15	0	0	0	0	0	0	0	2	0	0	0	0
07:30	0	0	0	0	0	0	4	2	0	1	0	0
07:45	0	0	0	0	0	0	1	1	0	2	0	0
08:00	0	0	0	0	0	0	0	0	0	0	1	0
08:15	0	0	0	0	0	0	0	5	**0**	1	1	**0**
08:30	0	0	0	0	0	0	5	1	**0**	2	1	**0**
08:45	0	0	0	0	0	0	2	1	**0**	2	3	**0**
09:00	0	0	0	0	0	0	1	1	**0**	0	0	**0**
09:15	0	0	0	0	0	0	0	2	0	4	1	0
09:30	0	0	0	0	2	0	1	3	0	0	3	0
09:45	0	0	0	0	1	0	6	8	0	0	3	0
10:00	0	0	0	0	0	0	1	3	0	1	2	0
10:15	0	0	0	0	0	0	4	1	0	1	1	0
10:30	0	0	0	0	0	0	2	3	0	0	1	0
10:45	0	0	0	0	0	0	0	2	0	0	1	0
11:00	0	0	0	0	0	0	1	0	0	2	0	0
11:15	0	0	0	0	0	0	2	2	0	0	2	0
11:30	0	0	0	0	2	0	0	4	0	5	0	0
11:45	0	0	0	0	3	0	4	2	0	4	7	0
12:00	0	0	0	0	0	0	4	11	0	1	6	0
12:15	0	0	0	0	2	0	2	2	0	0	7	0
12:30	0	0	0	0	0	0	0	4	0	0	5	0
12:45	0	0	0	0	5	0	3	3	0	0	9	0
13:00	0	0	0	0	0	0	3	4	0	2	0	0
13:15	0	0	0	0	0	0	0	0	0	2	1	0
13:30	0	0	0	0	0	0	2	5	0	3	3	0
13:45	0	0	0	0	0	0	0	2	0	0	3	0
14:00	0	0	0	0	0	0	0	3	0	1	5	0
14:15	0	0	0	0	0	0	1	1	0	1	2	0
14:30	0	0	0	0	0	0	2	1	0	0	2	0
14:45	0	0	0	0	3	0	1	0	0	2	9	0
15:00	0	0	0	0	0	0	2	2	0	3	5	0
15:15	0	0	0	0	0	0	0	0	0	0	1	0
15:30	0	0	0	0	0	0	2	11	0	3	12	0
15:45	0	0	0	0	3	0	0	14	0	0	1	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	3	0	1	2	0
16:30	0	0	0	0	0	0	2	2	0	1	4	0
16:45	0	0	0	0	0	0	0	6	0	1	4	0
17:00	0	0	0	0	1	0	1	4	0	0	0	0
17:15	0	0	0	0	0	0	2	1	0	3	2	0
17:30	0	0	0	0	3	0	1	0	0	0	0	0
17:45	0	0	0	0	3	0	0	0	**0**	3	8	**0**
18:00	0	0	0	0	2	0	2	12	**0**	1	3	**0**
18:15	0	0	0	0	0	0	0	2	**0**	0	1	**0**
18:30	0	0	0	0	0	0	0	2	**0**	0	1	**0**
18:45	0	0	0	0	0	0	0	2	0	1	1	0
19:00	0	0	0	0	0	0	0	2	0	1	2	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**0**	**0**	**0**	**0**	**34**	**0**	**65**	**147**	**0**	**57**	**130**	**0**
AM Peak Vol	0	0	0	0	0	0	8	8	0	5	5	0
PM Peak Vol	0	0	0	0	5	0	2	16	0	4	13	0

Turning Movement Summary:

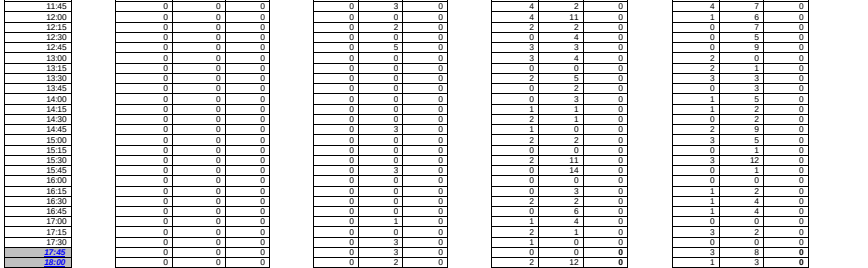


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



Turning Counts Study - Field Sheet

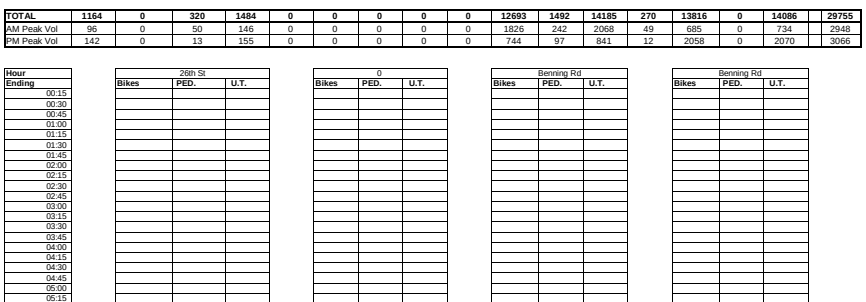
Location: Benning Road @ 26th Street, NE
Date: 7/19/2012 Thursday
Recorder: CSS
Interval (dd) : 15 (in Minutes)
Weather: Sunny

PEAK HOURS	AM PERIOD	7:00AM - 9:00AM	Start	End	Volume	PM PERIOD	3:30PM-6:00PM	Start	End	Volume
			08:00	09:00	2948			17:15	18:15	3066

Street Name-->	26th St							Benning Rd					Benning Rd				
HOUR	From North				From South				From East				From West				GRAND
ENDING	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	L	T	R	TOT	TOTAL
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
02:45																	
03:00																	
03:15																	
03:30																	
03:45																	
04:00																	
04:15																	
04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	4	0	2	6	0	0	0	0	0	135	8	143	1	65	0	66	215
06:30	4	0	2	6	0	0	0	0	0	229	16	245	5	63	0	68	319
06:45	1	0	1	2	0	0	0	0	0	247	22	269	3	72	0	75	346
07:00	3	0	3	6	0	0	0	0	0	328	23	351	0	104	0	104	461
07:15	10	0	5	15	0	0	0	0	0	386	33	419	3	112	0	115	549
07:30	6	0	0	6	0	0	0	0	0	440	31	471	7	135	0	142	619
07:45	11	0	4	15	0	0	0	0	0	462	48	510	5	156	0	161	686
08:00	17	0	7	24	0	0	0	0	0	423	67	490	4	171	0	175	689
08:15	**14**	**0**	**5**	**19**	**0**	**0**	**0**	**0**	**0**	**475**	**55**	**530**	**10**	**159**	**0**	**169**	**718**
08:30	**18**	**0**	**12**	**30**	**0**	**0**	**0**	**0**	**0**	**456**	**53**	**509**	**20**	**176**	**0**	**196**	**735**
08:45	**20**	**0**	**15**	**35**	**0**	**0**	**0**	**0**	**0**	**491**	**77**	**568**	**10**	**156**	**0**	**166**	**769**
09:00	**44**	**0**	**18**	**62**	**0**	**0**	**0**	**0**	**0**	**404**	**57**	**461**	**9**	**194**	**0**	**203**	**726**
09:15	31	0	6	37	0	0	0	0	0	303	35	338	11	263	0	274	649
09:30	23	0	6	29	0	0	0	0	0	278	23	301	9	237	0	246	576
09:45	17	0	5	22	0	0	0	0	0	304	33	337	5	195	0	200	559
10:00	20	0	4	24	0	0	0	0	0	251	25	276	4	157	0	161	461
10:15	14	0	5	19	0	0	0	0	0	263	15	278	1	171	0	172	469
10:30	9	0	6	15	0	0	0	0	0	232	33	265	2	184	0	186	466
10:45	13	0	3	16	0	0	0	0	0	208	21	229	3	179	0	182	427
11:00	12	0	1	13	0	0	0	0	0	223	15	238	2	177	0	179	430
11:15	15	0	6	21	0	0	0	0	0	171	24	195	1	158	0	159	375
11:30	16	0	5	21	0	0	0	0	0	223	35	258	3	180	0	183	462
11:45	26	0	9	35	0	0	0	0	0	188	30	218	5	180	0	185	438
12:00	14	0	7	21	0	0	0	0	0	196	21	217	4	196	0	200	438
12:15	24	0	6	30	0	0	0	0	0	167	31	198	3	207	0	210	438
12:30	16	0	9	25	0	0	0	0	0	209	29	238	11	213	0	224	487
12:45	19	0	12	31	0	0	0	0	0	215	19	234	8	245	0	253	518
13:00	12	0	7	19	0	0	0	0	0	241	40	281	10	264	0	274	574
13:15	40	0	13	53	0	0	0	0	0	191	40	231	6	231	0	237	521
13:30	22	0	4	26	0	0	0	0	0	202	27	229	6	265	0	271	526
13:45	28	0	9	37	0	0	0	0	0	197	18	205	6	206	0	212	454
14:00	31	0	9	40	0	0	0	0	0	211	30	241	9	220	0	229	510
14:15	42	0	6	48	0	0	0	0	0	174	17	191	6	285	0	291	530
14:30	31	0	13	44	0	0	0	0	0	219	20	239	5	269	0	274	557
14:45	31	0	7	38	0	0	0	0	0	230	21	251	4	301	0	305	594
15:00	26	0	4	30	0	0	0	0	0	192	28	220	5	322	0	327	577
15:15	36	0	11	47	0	0	0	0	0	222	30	252	9	333	0	342	641
15:30	22	0	9	31	0	0	0	0	0	195	19	214	4	366	0	370	615
15:45	39	0	10	49	0	0	0	0	0	181	16	197	3	397	0	400	646
16:00	30	0	6	36	0	0	0	0	0	181	20	201	6	428	0	434	671
16:15	17	0	2	19	0	0	0	0	0	195	25	220	2	391	0	393	632
16:30	33	0	7	40	0	0	0	0	0	176	25	201	6	448	0	454	695
16:45	32	0	5	37	0	0	0	0	0	187	23	210	4	418	0	422	669
17:00	23	0	3	26	0	0	0	0	0	179	28	207	2	451	0	453	686
17:15	36	0	9	45	0	0	0	0	0	155	17	172	5	491	0	496	713
17:30	**47**	**0**	**2**	**49**	**0**	**0**	**0**	**0**	**0**	**176**	**33**	**209**	**4**	**592**	**0**	**596**	**854**
17:45	**38**	**0**	**4**	**42**	**0**	**0**	**0**	**0**	**0**	**217**	**24**	**241**	**4**	**516**	**0**	**520**	**803**
18:00	**31**	**0**	**3**	**34**	**0**	**0**	**0**	**0**	**0**	**159**	**18**	**177**	**2**	**473**	**0**	**475**	**686**
18:15	**26**	**0**	**4**	**30**	**0**	**0**	**0**	**0**	**0**	**192**	**22**	**214**	**2**	**477**	**0**	**479**	**723**
18:30	28	0	1	29	0	0	0	0	0	203	18	221	3	457	0	460	710
18:45	24	0	1	25	0	0	0	0	0	167	40	207	6	365	0	371	603
19:00	18	0	7	25	0	0	0	0	0	154	14	168	2	345	0	347	540
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	
TOTAL	**1164**	**0**	**320**	**1484**	**0**	**0**	**0**	**0**	**0**	**12693**	**1492**	**14185**	**270**	**13816**	**0**	**14086**	**29755**
AM Peak Vol	96	0	50	146	0	0	0	0	0	1826	242	2068	49	685	0	734	2948
PM Peak Vol	142	0	13	155	0	0	0	0	0	744	97	841	12	2058	0	2070	3066

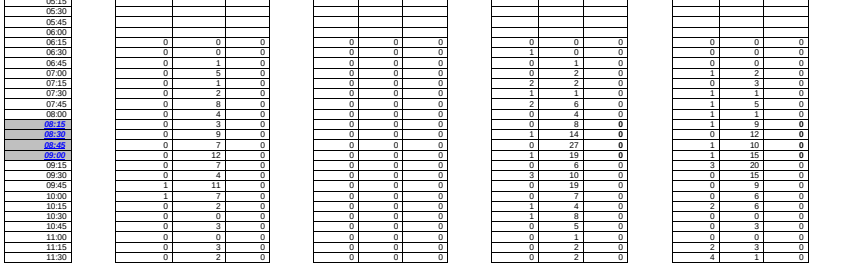
Hour Ending	26th St			0			Benning Rd			Benning Rd		
	Bikes	PED.	U.T.	Bikes	PED.	U.T.	Bikes	PED.	U.T.	Bikes	PED.	U.T.
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
02:30												
02:45												
03:00												
03:15												
03:30												
03:45												
04:00												
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	1	0	0	0	0	0
06:45	0	1	0	0	0	0	0	1	0	0	0	0
07:00	0	5	0	0	0	0	0	2	0	1	2	0
07:15	0	1	0	0	0	0	2	2	0	0	3	0
07:30	0	2	0	0	0	0	1	1	0	1	1	0
07:45	0	8	0	0	0	0	2	6	0	1	5	0
08:00	0	4	0	0	0	0	0	4	0	1	1	0
08:15	0	3	0	0	0	0	0	8	**0**	1	9	**0**
08:30	0	9	0	0	0	0	1	14	**0**	0	12	**0**
08:45	0	7	0	0	0	0	0	27	**0**	1	10	**0**
09:00	0	12	0	0	0	0	1	19	**0**	1	15	**0**
09:15	0	7	0	0	0	0	0	6	0	3	20	0
09:30	0	4	0	0	0	0	3	10	0	0	15	0
09:45	1	11	0	0	0	0	0	19	0	0	9	0
10:00	1	7	0	0	0	0	0	7	0	0	6	0
10:15	0	2	0	0	0	0	1	4	0	2	6	0
10:30	0	6	0	0	0	0	1	8	0	0	0	0
10:45	0	3	0	0	0	0	0	5	0	0	3	0
11:00	0	0	0	0	0	0	0	1	0	0	0	0
11:15	0	3	0	0	0	0	0	2	0	2	3	0
11:30	0	2	0	0	0	0	0	2	0	4	1	0
11:45	0	3	0	0	0	0	0	5	0	3	5	0
12:00	0	8	0	0	0	0	0	12	0	2	3	0
12:15	1	4	0	0	0	0	1	6	0	0	13	0
12:30	1	9	0	0	0	0	0	2	0	2	10	0
12:45	0	6	0	0	0	0	0	4	0	0	6	0
13:00	0	8	0	0	0	0	0	7	0	0	2	0
13:15	0	12	0	0	0	0	0	1	0	0	0	0
13:30	0	9	0	0	0	0	0	0	0	0	4	0
13:45	0	7	0	0	0	0	0	3	0	1	1	0
14:00	2	13	0	0	0	0	1	13	0	4	5	0
14:15	0	18	0	0	0	0	0	1	0	2	11	0
14:30	1	15	0	0	0	0	3	4	0	0	0	0
14:45	0	7	0	0	0	0	0	0	0	1	4	0
15:00	0	4	0	0	0	0	0	0	0	0	1	0
15:15	1	8	0	0	0	0	0	1	0	0	1	0
15:30	1	10	0	0	0	0	1	3	0	1	8	0
15:45	0	5	0	0	0	0	0	0	0	1	6	0
16:00	0	3	0	0	0	0	0	4	0	3	0	0
16:15	0	17	0	0	0	0	1	0	0	0	3	0
16:30	3	4	0	0	0	0	1	1	0	0	2	0
16:45	0	9	0	0	0	0	1	4	0	3	1	0
17:00	0	1	0	0	0	0	1	0	0	3	0	0
17:15	1	2	0	0	0	0	2	1	0	1	0	0
17:30	0	4	0	0	0	0	0	0	**0**	0	0	**0**
17:45	0	1	0	0	0	0	0	0	**0**	0	0	**0**
18:00	0	2	0	0	0	0	0	0	**0**	1	2	**0**
18:15	0	2	0	0	0	0	0	0	**0**	1	1	**0**
18:30	0	7	0	0	0	0	1	0	0	3	2	0
18:45	0	0	0	0	0	0	0	2	0	0	1	0
19:00	0	1	0	0	0	0	0	0	0	1	0	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**13**	**290**	**0**	**0**	**0**	**0**	**26**	**222**	**0**	**51**	**213**	**0**
AM Peak Vol	0	31	0	0	0	0	2	68	0	3	46	0
PM Peak Vol	0	9	0	0	0	0	0	0	0	2	3	0

Turning Movement Summary:

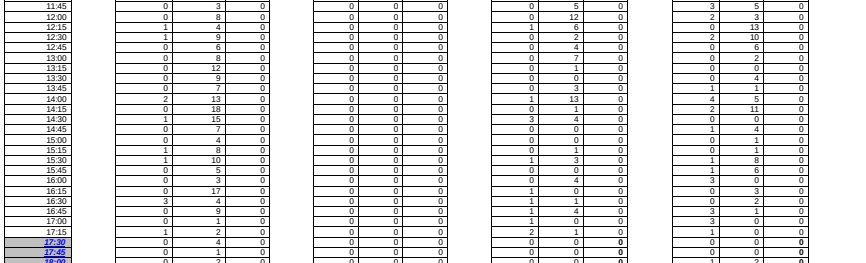


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



Turning Counts Study - Field Sheet

Location:	Benning Road @ Oklahoma Street, NE		
Date:	7/19/2012	Thursday	
Recorder:	CSS		**Weather:** Sunny
Interval (dd) : (in Minutes)	15		

PEAK HOURS	**AM PERIOD**	**7:00AM - 9:00AM**	Start	End	Volume	**PM PERIOD**	**3:30PM-6:00PM**	Start	End	Volume		
			07:45	08:45	**3148**			16:45	17:45	**3143**		

Street Name-->					Oklahoma St				Benning Rd				Benning Rd				
HOUR	**From North**				**From South**				**From East**				**From West**				**GRAND**
ENDING	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**L**	**T**	**R**	**TOT**	**TOTAL**
00:15																	
00:30																	
00:45																	
01:00																	
01:15																	
01:30																	
01:45																	
02:00																	
02:15																	
02:30																	
02:45																	
03:00																	
03:15																	
03:30																	
03:45																	
04:00																	
04:15																	
04:30																	
04:45																	
05:00																	
05:15																	
05:30																	
05:45																	
06:00																	
06:15	0	0	0	0	2	0	5	7	5	202	0	207	0	59	2	61	275
06:30	0	0	0	0	3	0	3	6	9	257	0	266	0	71	4	75	347
06:45	0	0	0	0	3	0	7	10	8	314	0	322	0	89	1	90	422
07:00	0	0	0	0	3	0	8	11	15	387	0	402	0	99	1	100	513
07:15	0	0	0	0	8	0	9	17	14	437	0	451	0	154	0	154	622
07:30	0	0	0	0	12	0	3	15	22	489	0	511	0	148	8	156	682
07:45	0	0	0	0	7	0	7	14	25	509	0	534	0	176	7	183	731
08:00	**0**	**0**	**0**	**0**	**15**	**0**	**11**	**26**	**39**	**531**	**0**	**570**	**0**	**190**	**10**	**200**	**796**
08:15	**0**	**0**	**0**	**0**	**8**	**0**	**12**	**20**	**31**	**558**	**0**	**589**	**0**	**167**	**2**	**169**	**778**
08:30	**0**	**0**	**0**	**0**	**25**	**0**	**16**	**41**	**26**	**521**	**0**	**547**	**0**	**192**	**6**	**198**	**786**
08:45	**0**	**0**	**0**	**0**	**18**	**0**	**16**	**34**	**29**	**541**	**0**	**570**	**0**	**175**	**9**	**184**	**788**
09:00	0	0	0	0	25	0	18	43	24	454	0	478	0	212	20	232	753
09:15	0	0	0	0	12	0	19	31	71	404	0	475	0	179	12	191	697
09:30	0	0	0	0	13	0	14	27	91	369	0	460	0	163	16	179	666
09:45	0	0	0	0	8	0	12	20	53	339	0	392	0	173	14	187	599
10:00	0	0	0	0	6	0	9	15	31	295	0	326	0	186	5	191	532
10:15	0	0	0	0	9	0	10	19	69	287	0	356	0	171	18	189	564
10:30	0	0	0	0	7	0	11	18	45	265	0	310	0	190	9	199	527
10:45	0	0	0	0	8	0	10	18	15	253	0	268	0	187	7	194	480
11:00	0	0	0	0	9	0	2	11	11	226	0	237	0	174	5	179	427
11:15	0	0	0	0	6	0	15	21	12	230	0	242	0	160	10	170	433
11:30	0	0	0	0	18	0	12	30	23	244	0	267	0	200	9	209	506
11:45	0	0	0	0	14	0	18	32	14	225	0	239	0	197	21	218	489
12:00	0	0	0	0	9	0	7	16	18	205	0	223	0	190	5	195	434
12:15	0	0	0	0	12	0	17	29	12	222	0	234	0	227	12	239	502
12:30	0	0	0	0	11	0	9	20	18	224	0	242	0	229	12	241	503
12:45	0	0	0	0	12	0	7	19	20	243	0	263	0	251	12	263	545
13:00	0	0	0	0	11	0	9	20	8	237	0	245	0	259	9	268	533
13:15	0	0	0	0	8	0	11	19	16	245	0	255	0	228	9	237	511
13:30	0	0	0	0	13	0	11	24	20	210	0	230	0	246	13	259	513
13:45	0	0	0	0	3	0	8	11	13	229	0	242	0	263	22	285	538
14:00	0	0	0	0	5	0	9	14	9	220	0	229	0	255	18	273	516
14:15	0	0	0	0	9	0	12	21	16	233	0	249	0	316	8	324	594
14:30	0	0	0	0	18	0	22	40	17	232	0	249	0	271	2	273	562
14:45	0	0	0	0	9	0	12	21	22	234	0	256	0	339	8	347	624
15:00	0	0	0	0	8	0	17	25	37	263	0	300	0	292	11	303	628
15:15	0	0	0	0	7	0	19	26	42	235	0	277	0	330	5	335	638
15:30	0	0	0	0	11	0	23	34	32	223	0	255	0	349	18	367	656
15:45	0	0	0	0	5	0	13	18	16	206	0	222	0	382	10	392	632
16:00	0	0	0	0	11	0	17	28	14	204	0	218	0	416	11	427	673
16:15	0	0	0	0	6	0	20	26	14	212	0	226	0	395	10	405	657
16:30	0	0	0	0	9	0	29	38	13	220	0	233	0	432	13	445	716
16:45	0	0	0	0	10	0	32	42	15	199	0	214	0	441	11	452	708
17:00	**0**	**0**	**0**	**0**	**4**	**0**	**19**	**23**	**14**	**212**	**0**	**226**	**0**	**483**	**9**	**492**	**741**
17:15	**0**	**0**	**0**	**0**	**10**	**0**	**23**	**33**	**14**	**190**	**0**	**204**	**0**	**536**	**9**	**545**	**782**
17:30	**0**	**0**	**0**	**0**	**12**	**0**	**26**	**38**	**11**	**211**	**0**	**222**	**0**	**582**	**17**	**599**	**859**
17:45	**0**	**0**	**0**	**0**	**7**	**0**	**17**	**24**	**11**	**210**	**0**	**221**	**0**	**498**	**18**	**516**	**761**
18:00	0	0	0	0	8	0	20	28	15	202	0	217	0	440	8	448	693
18:15	0	0	0	0	8	0	29	37	16	215	0	231	0	480	8	488	756
18:30	0	0	0	0	6	0	25	31	17	228	0	245	0	412	14	426	702
18:45	0	0	0	0	6	0	17	23	17	196	0	213	0	397	8	405	641
19:00	0	0	0	0	5	0	22	27	13	181	0	194	0	318	10	328	549
19:15																	
19:30																	
19:45																	
20:00																	
20:15																	
20:30																	
20:45																	
21:00																	
TOTAL	**0**	**0**	**0**	**0**	**492**	**0**	**749**	**1241**	**1176**	**14678**	**0**	**15854**	**0**	**13969**	**516**	**14485**	**31580**
AM Peak Vol	0	0	0	0	66	0	55	121	125	2151	0	2276	0	724	27	751	3148
PM Peak Vol	0	0	0	0	33	0	85	118	50	823	0	873	0	2099	53	2152	3143

Hour Ending	0			Oklahoma St			Benning Rd			Benning Rd		
	Bikes	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**	**Bikes**	**PED.**	**U.T.**
00:15												
00:30												
00:45												
01:00												
01:15												
01:30												
01:45												
02:00												
02:15												
02:30												
02:45												
03:00												
03:15												
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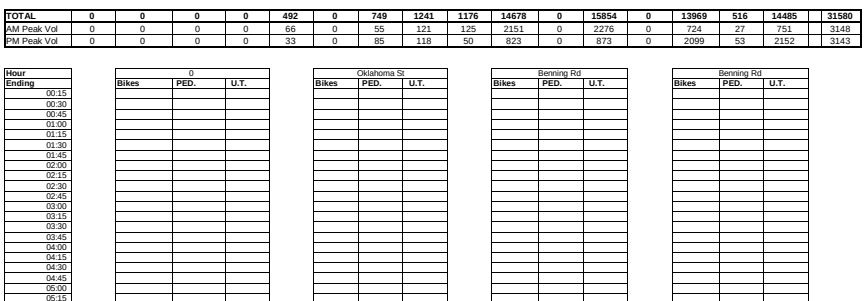
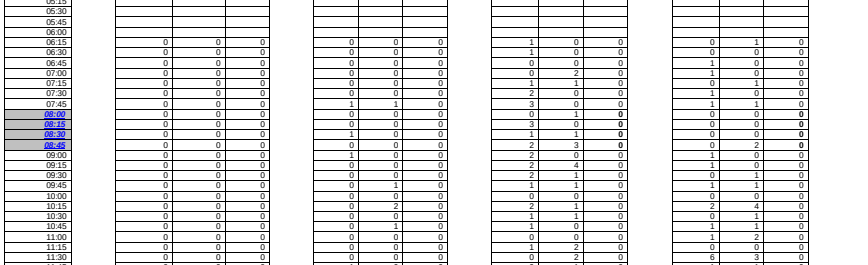
04:15												
04:30												
04:45												
05:00												
05:15												
05:30												
05:45												
06:00												
06:15	0	0	0	0	0	0	1	0	0	0	1	0
06:30	0	0	0	0	0	0	1	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	1	0	0
07:00	0	0	0	0	0	0	0	2	0	1	0	0
07:15	0	0	0	0	0	0	1	1	0	0	1	0
07:30	0	0	0	0	0	0	2	0	0	1	0	0
07:45	0	0	0	1	1	0	3	0	0	1	1	0
08:00	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
08:15	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**
08:30	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**
08:45	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**2**	**0**
09:00	0	0	0	1	0	0	2	0	0	1	0	0
09:15	0	0	0	0	0	0	2	4	0	1	0	0
09:30	0	0	0	0	0	0	2	1	0	0	1	0
09:45	0	0	0	0	1	0	1	1	0	1	1	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	2	0	2	1	0	2	4	0
10:30	0	0	0	0	0	0	1	1	0	0	1	0
10:45	0	0	0	0	1	0	1	0	0	1	1	0
11:00	0	0	0	0	0	0	0	0	0	1	2	0
11:15	0	0	0	0	0	0	1	2	0	0	0	0
11:30	0	0	0	0	0	0	0	2	0	6	3	0
11:45	0	0	0	1	0	0	0	1	0	1	1	0
12:00	0	0	0	0	0	0	0	1	0	1	0	0
12:15	0	0	0	0	2	0	2	3	0	1	4	0
12:30	0	0	0	0	0	0	0	2	0	1	0	0
12:45	0	0	0	2	0	0	1	0	0	0	3	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	2	0	0	0	0
13:30	0	0	0	0	1	0	0	1	0	0	1	0
13:45	0	0	0	0	0	0	1	0	0	1	2	0
14:00	0	0	0	2	0	0	1	2	0	3	3	0
14:15	0	0	0	0	1	0	0	1	0	1	0	0
14:30	0	0	0	0	0	0	2	1	0	0	0	0
14:45	0	0	0	0	0	0	2	0	0	2	2	0
15:00	0	0	0	0	0	0	0	0	0	0	1	0
15:15	0	0	0	0	0	0	0	1	0	0	7	0
15:30	0	0	0	0	0	0	0	0	0	0	1	0
15:45	0	0	0	0	0	0	0	0	0	0	1	0
16:00	0	0	0	0	0	0	0	0	0	2	1	0
16:15	0	0	0	0	0	0	3	2	0	0	0	0
16:30	0	0	0	0	0	0	1	2	0	0	0	0
16:45	0	0	0	1	1	0	1	1	0	4	2	0
17:00	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**	**2**	**0**
17:15	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**
17:30	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**0**
17:45	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
18:00	0	0	0	0	0	0	0	2	0	2	4	0
18:15	0	0	0	0	0	0	2	0	0	2	3	0
18:30	0	0	0	0	0	0	1	1	0	3	1	0
18:45	0	0	0	0	0	0	1	1	0	1	0	0
19:00	0	0	0	1	0	0	1	0	0	0	0	0
19:15												
19:30												
19:45												
20:00												
20:15												
20:30												
20:45												
21:00												
TOTAL	**0**	**0**	**0**	**10**	**10**	**0**	**51**	**46**	**0**	**44**	**58**	**0**
AM Peak Vol	0	0	0	1	0	0	6	5	0	0	2	0
PM Peak Vol	0	0	0	0	0	0	6	2	0	2	3	0

Turning Movement Summary:

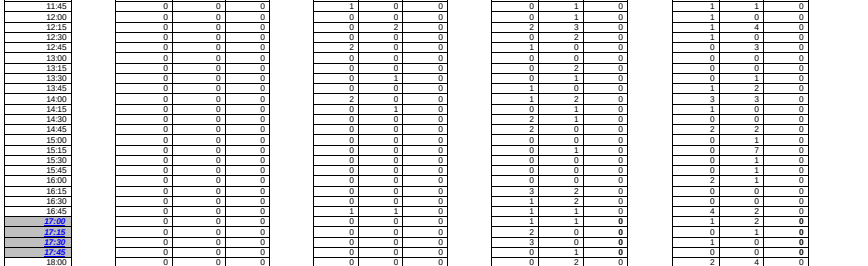


Comments: LOS AM:A PM: A

AM Peak Hour :



PM Peak Hour :



16285 SW 85th Ave, Ste 302
Tigard, OR 97224
503-620-4242
www.qualitycounts.net

Site Code: 10786104 **Peak Hour: 7:30am - 8:30am**
Location: Bladensburg Rd/Maryland Ave & H St/Benning Rd & 15th St **Peak 15-minutes: 8:15am - 8:30am**
Date: 7/18/2012 **Peak Hour Factor: 0.94632**

	Bladensburg Rd NE Southbound				Benning Rd NE Westbound				15th St NE Northbound					Maryland Ave NE Northbound				H St NE Eastbound						
	U-Turns	Right to H St NE	Thru to Maryland Ave NE	Left to Benning Rd NE	U-Turns	Right to Bladensburg Rd NE	Thru to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St	U-Turns	Right to Maryland Ave NE	Thru to Benning Rd NE	Left to Bladensburg Rd NE	Interval Totals	Hourly Totals	15-minute Totals
7:30 AM	0	23	47	0	0	5	120	0	0	5	16	0	0	0	3	8	0	0	0	28	10	265		
7:35 AM	0	22	34	0	0	5	147	1	0	0	6	0	0	0	4	13	0	0	2	31	5	270		
7:40 AM	0	14	57	0	0	2	181	0	0	3	14	0	0	0	1	12	0	0	1	34	10	329		864
7:45 AM	0	22	29	0	0	5	155	0	0	2	9	0	0	0	6	15	0	0	1	47	7	298		897
7:50 AM	0	25	43	0	0	1	117	1	0	3	11	0	0	0	3	12	0	0	0	33	5	254		881
7:55 AM	0	26	37	0	0	7	163	1	0	3	10	0	0	0	5	14	0	0	2	45	9	322		874
8:00 AM	0	23	65	0	0	4	151	1	0	3	20	0	0	0	1	5	0	0	0	26	11	310		886
8:05 AM	0	19	46	0	0	3	121	0	0	2	11	1	0	0	4	21	0	0	0	39	11	278		910
8:10 AM	0	26	46	0	0	11	141	0	0	3	24	0	0	0	5	5	0	0	1	42	16	320		908
8:15 AM	0	27	39	0	0	6	160	1	0	5	7	0	1	0	4	18	0	0	0	46	6	320		918
8:20 AM	0	29	52	0	0	11	135	0	0	3	21	0	0	0	3	10	0	0	0	30	8	302		942
8:25 AM	0	28	35	0	0	7	176	1	0	5	9	0	0	0	3	14	0	0	1	39	10	328	3596	950
Totals	0	284	530	0	0	67	1767	6	0	37	158	1	1	0	42	147	0	0	8	440	108			

Site Code: 10786105 **Peak Hour: 12:00pm - 1:00pm**
Location: Bladensburg Rd/Maryland Ave & H St/Benning Rd & 15th St **Peak 15-minutes: 12:10pm - 12:25pm**
Date: 7/18/2012 **Peak Hour Factor: 0.97892**

	Bladensburg Rd NE Southbound				Benning Rd NE Westbound				15th St NE Northbound					Maryland Ave NE Northbound				H St NE Eastbound						
	U-Turns	Right to H St NE	Thru to Maryland Ave NE	Left to Benning Rd NE	U-Turns	Right to Bladensburg Rd NE	Thru to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St	U-Turns	Right to Maryland Ave NE	Thru to Benning Rd NE	Left to Bladensburg Rd NE	Interval Totals	Hourly Totals	15-minute Totals
12:00 PM	0	28	24	0	0	4	51	0	0	2	9	0	0	0	10	15	0	0	2	33	15	193		
12:05 PM	0	14	19	0	0	13	48	0	0	5	10	0	1	0	4	15	0	0	0	32	11	172		
12:10 PM	0	17	19	0	0	8	44	0	0	4	14	0	0	0	8	18	0	0	0	51	12	195		560
12:15 PM	0	11	17	0	0	4	46	1	0	0	11	1	0	0	2	13	0	0	0	65	16	187		554
12:20 PM	0	14	24	0	0	9	55	0	0	2	15	0	0	0	7	19	0	0	1	43	22	211		593
12:25 PM	0	18	21	0	0	5	55	0	0	3	9	0	0	0	3	13	0	0	1	54	12	194		592
12:30 PM	0	14	30	0	0	6	48	0	0	3	9	0	0	0	6	9	0	0	0	47	14	186		591
12:35 PM	0	17	22	0	0	6	54	0	0	8	12	2	0	0	6	7	0	0	0	52	13	199		579
12:40 PM	0	9	13	0	0	4	56	0	0	5	13	0	0	0	4	13	0	0	0	66	22	205		590
12:45 PM	0	20	19	0	0	6	50	1	0	0	14	1	0	0	8	9	0	0	0	47	7	182		586
12:50 PM	0	19	19	0	0	7	49	1	0	5	13	0	0	0	7	13	1	0	0	46	11	191		578
12:55 PM	0	19	17	0	0	5	57	0	0	7	18	1	0	0	6	18	0	0	2	49	8	207	2322	580
Totals	0	200	244	0	0	77	613	3	0	44	147	5	1	0	71	162	1	0	6	585	163			

Site Code: 10786106 **Peak Hour: 4:00pm - 5:00pm**
Location: Bladensburg Rd/Maryland Ave & H St/Benning Rd & 15th St **Peak 15-minutes: 4:30pm - 4:45pm**
Date: 7/18/2012 **Peak Hour Factor: 0.95099**

	Bladensburg Rd NE Southbound				Benning Rd NE Westbound				15th St NE Northbound					Maryland Ave NE Northbound				H St NE Eastbound						
	U-Turns	Right to H St NE	Thru to Maryland Ave NE	Left to Benning Rd NE	U-Turns	Right to Bladensburg Rd NE	Thru to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St NE	Left to Maryland Ave NE	U-Turns	Right to Benning Rd NE	Thru to Bladensburg Rd NE	Left to H St	U-Turns	Right to Maryland Ave NE	Thru to Benning Rd NE	Left to Bladensburg Rd NE	Interval Totals	Hourly Totals	15-minute Totals
4:00 PM	0	13	33	0	0	8	49	0	0	4	24	0	0	0	5	37	0	0	0	84	22	279		
4:05 PM	0	9	27	0	0	4	57	1	0	2	20	0	0	0	3	23	0	0	1	116	33	296		
4:10 PM	0	16	27	0	0	4	51	0	0	5	24	0	0	0	9	28	0	0	0	112	36	312		887
4:15 PM	0	11	22	0	0	6	35	0	0	1	15	0	0	0	6	10	1	0	0	109	32	248		856
4:20 PM	0	13	18	0	0	14	58	0	0	3	20	0	0	0	11	29	0	0	0	100	22	288		848
4:25 PM	0	12	26	0	0	0	51	0	0	5	16	0	0	0	3	23	0	0	1	107	29	273		809
4:30 PM	0	14	21	0	0	11	51	0	0	7	43	0	0	0	6	36	0	0	0	107	24	320		881
4:35 PM	0	7	12	0	0	9	59	0	0	2	23	0	0	0	3	22	1	0	0	107	26	271		864
4:40 PM	0	23	32	0	0	7	39	0	0	3	19	2	0	0	5	35	0	0	0	129	28	322		913
4:45 PM	0	13	29	0	0	7	44	0	0	0	25	0	0	0	4	23	0	0	0	115	21	281		874
4:50 PM	0	12	12	1	0	9	40	0	0	4	20	1	0	0	6	29	0	0	0	133	25	292		895
4:55 PM	0	10	24	0	0	9	56	0	0	6	13	0	0	0	4	26	0	0	0	118	25	291	3473	864
Totals	0	153	283	1	0	88	590	1	0	42	262	3	0	0	65	321	2	0	2	1337	323			

LOCATION: 1st St, NE under H St Bridge
SPECIFIC LOCATION: 0 ft from
CITY/STATE: Washington, DC

QC JOB #: 10786155
DIRECTION: NB/SB
DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			50			50			50	
1:00 AM			40			40			40	
2:00 AM			30			30			30	
3:00 AM			42			42			42	
4:00 AM			66			66			66	
5:00 AM			158			158			158	
6:00 AM			329			329			329	
7:00 AM			523			523			523	
8:00 AM			832			832			832	
9:00 AM			**869**			**869**			**869**	
10:00 AM			746			746			746	
11:00 AM			595			595			595	
12:00 PM			712			712			712	
1:00 PM			651			651			651	
2:00 PM			684			684			684	
3:00 PM			689			689			689	
4:00 PM			**791**			**791**			**791**	
5:00 PM			756			756			756	
6:00 PM			664			664			664	
7:00 PM			381			381			381	
8:00 PM			206			206			206	
9:00 PM			203			203			203	
10:00 PM			190			190			190	
11:00 PM			144			144			144	
Day Total			10351			10351			10351	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak Volume			9:00 AM 869			9:00 AM 869			9:00 AM 869	
PM Peak Volume			4:00 PM 791			4:00 PM 791			4:00 PM 791	

Comments:

LOCATION: 2nd St, NE under H St Bridge
QC JOB #: 10786156
SPECIFIC LOCATION: 0 ft from
DIRECTION: NB/SB
CITY/STATE: Washington, DC
DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
			18-Jul-12							
12:00 AM			55			55			55	
1:00 AM			46			46			46	
2:00 AM			29			29			29	
3:00 AM			33			33			33	
4:00 AM			53			53			53	
5:00 AM			118			118			118	
6:00 AM			277			277			277	
7:00 AM			634			634			634	
8:00 AM			**926**			**926**			**926**	
9:00 AM			762			762			762	
10:00 AM			682			682			682	
11:00 AM			637			637			637	
12:00 PM			558			558			558	
1:00 PM			589			589			589	
2:00 PM			671			671			671	
3:00 PM			732			732			732	
4:00 PM			**873**			**873**			**873**	
5:00 PM			869			869			869	
6:00 PM			537			537			537	
7:00 PM			372			372			372	
8:00 PM			306			306			306	
9:00 PM			210			210			210	
10:00 PM			229			229			229	
11:00 PM			136			136			136	
Day Total			10334			10334			10334	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak			8:00 AM			8:00 AM			8:00 AM	
Volume			926			926			926	
PM Peak			4:00 PM			4:00 PM			4:00 PM	
Volume			873			873			873	

Comments:

LOCATION: Benning Rd, NE btwn 16th St, NE and 17th St, NE

QC JOB #: 10786157

SPECIFIC LOCATION: 0 ft from

DIRECTION: EB/WB

CITY/STATE: Washington, DC

DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			333			333			333	
1:00 AM			174			174			174	
2:00 AM			162			162			162	
3:00 AM			94			94			94	
4:00 AM			97			97			97	
5:00 AM			353			353			353	
6:00 AM			835			835			835	
7:00 AM			**1369**			**1369**			**1369**	
8:00 AM			1354			1354			1354	
9:00 AM			1231			1231			1231	
10:00 AM			997			997			997	
11:00 AM			120			120			120	
12:00 PM			0			0			0	
1:00 PM			0			0			0	
2:00 PM			0			0			0	
3:00 PM			0			0			0	
4:00 PM			0			0			0	
5:00 PM			1			1			1	
6:00 PM			0			0			0	
7:00 PM			**3**			**3**			**3**	
8:00 PM										
9:00 PM										
10:00 PM										
11:00 PM										
Day Total			7123			7123			7123	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak			7:00 AM			7:00 AM			7:00 AM	
Volume			1369			1369			1369	
PM Peak			7:00 PM			7:00 PM			7:00 PM	
Volume			3			3			3	

Comments:

LOCATION: H St, NE btwn 12th St, NE and 13th St, NE

QC JOB #: 10786158

SPECIFIC LOCATION: 0 ft from

DIRECTION: EB/WB

CITY/STATE: Washington, DC

DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			356			356			356	
1:00 AM			238			238			238	
2:00 AM			164			164			164	
3:00 AM			130			130			130	
4:00 AM			171			171			171	
5:00 AM			499			499			499	
6:00 AM			1136			1136			1136	
7:00 AM			2116			2116			2116	
8:00 AM			**2333**			**2333**			**2333**	
9:00 AM			1728			1728			1728	
10:00 AM			1308			1308			1308	
11:00 AM			1264			1264			1264	
12:00 PM			1434			1434			1434	
1:00 PM			1365			1365			1365	
2:00 PM			1547			1547			1547	
3:00 PM			1766			1766			1766	
4:00 PM			**2162**			**2162**			**2162**	
5:00 PM			2134			2134			2134	
6:00 PM			1694			1694			1694	
7:00 PM			1139			1139			1139	
8:00 PM			933			933			933	
9:00 PM			789			789			789	
10:00 PM			682			682			682	
11:00 PM			506			506			506	
Day Total			27594			27594			27594	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak			8:00 AM			8:00 AM			8:00 AM	
Volume			2333			2333			2333	
PM Peak			4:00 PM			4:00 PM			4:00 PM	
Volume			2162			2162			2162	

Comments:

LOCATION: H St, NE btwn 4th St, NE and 5th St, NE

QC JOB #: 10786159

SPECIFIC LOCATION: 0 ft from

DIRECTION: EB/WB

CITY/STATE: Washington, DC

DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			353			353			353	
1:00 AM			199			199			199	
2:00 AM			158			158			158	
3:00 AM			109			109			109	
4:00 AM			125			125			125	
5:00 AM			422			422			422	
6:00 AM			1007			1007			1007	
7:00 AM			1591			1591			1591	
8:00 AM			**1885**			**1885**			**1885**	
9:00 AM			1538			1538			1538	
10:00 AM			1277			1277			1277	
11:00 AM			1142			1142			1142	
12:00 PM			1152			1152			1152	
1:00 PM			928			928			928	
2:00 PM			986			986			986	
3:00 PM			1304			1304			1304	
4:00 PM			**1921**			**1921**			**1921**	
5:00 PM			1817			1817			1817	
6:00 PM			1710			1710			1710	
7:00 PM			1280			1280			1280	
8:00 PM			823			823			823	
9:00 PM			942			942			942	
10:00 PM			778			778			778	
11:00 PM			513			513			513	
Day Total			23960			23960			23960	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak Volume			8:00 AM 1885			8:00 AM 1885			8:00 AM 1885	
PM Peak Volume			4:00 PM 1921			4:00 PM 1921			4:00 PM 1921	

Comments:

LOCATION: H St, NE bridge btwn 1st St, NE and 2nd St, NE

QC JOB #: 10786160

SPECIFIC LOCATION: 0 ft from

DIRECTION: EB/WB

CITY/STATE: Washington, DC

DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			339			339			339	
1:00 AM			193			193			193	
2:00 AM			148			148			148	
3:00 AM			112			112			112	
4:00 AM			140			140			140	
5:00 AM			455			455			455	
6:00 AM			1059			1059			1059	
7:00 AM			1503			1503			1503	
8:00 AM			**1703**			**1703**			**1703**	
9:00 AM			1392			1392			1392	
10:00 AM			1164			1164			1164	
11:00 AM			1093			1093			1093	
12:00 PM			1195			1195			1195	
1:00 PM			1129			1129			1129	
2:00 PM			1278			1278			1278	
3:00 PM			1428			1428			1428	
4:00 PM			**1738**			**1738**			**1738**	
5:00 PM			1607			1607			1607	
6:00 PM			1402			1402			1402	
7:00 PM			1136			1136			1136	
8:00 PM			796			796			796	
9:00 PM			851			851			851	
10:00 PM			719			719			719	
11:00 PM			515			515			515	
Day Total			23095			23095			23095	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak Volume			8:00 AM 1703			8:00 AM 1703			8:00 AM 1703	
PM Peak Volume			4:00 PM 1738			4:00 PM 1738			4:00 PM 1738	

Comments:

LOCATION: H St, NE west of N Capitol St, NW
QC JOB #: 10786161
SPECIFIC LOCATION: 0 ft from
DIRECTION: EB/WB
CITY/STATE: Washington, DC
DATE: Jul 18 2012 - Jul 18 2012

Start Time	Mon	Tue	Wed 18-Jul-12	Thu	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM			360			360			360	
1:00 AM			223			223			223	
2:00 AM			149			149			149	
3:00 AM			117			117			117	
4:00 AM			174			174			174	
5:00 AM			496			496			496	
6:00 AM			1131			1131			1131	
7:00 AM			1553			1553			1553	
8:00 AM			**1662**			**1662**			**1662**	
9:00 AM			1446			1446			1446	
10:00 AM			1291			1291			1291	
11:00 AM			1248			1248			1248	
12:00 PM			1317			1317			1317	
1:00 PM			1242			1242			1242	
2:00 PM			1324			1324			1324	
3:00 PM			1549			1549			1549	
4:00 PM			**1775**			**1775**			**1775**	
5:00 PM			1727			1727			1727	
6:00 PM			1543			1543			1543	
7:00 PM			1376			1376			1376	
8:00 PM			1076			1076			1076	
9:00 PM			921			921			921	
10:00 PM			844			844			844	
11:00 PM			610			610			610	
Day Total			25154			25154			25154	
% Weekday Average			100.0%							
% Week Average			100.0%			100.0%				
AM Peak Volume			8:00 AM 1662			8:00 AM 1662			8:00 AM 1662	
PM Peak Volume			4:00 PM 1775			4:00 PM 1775			4:00 PM 1775	

Comments:

Appendix 2
Kick-off Meeting Notes

Meeting Notes

DDOT Task 29: H/Benning Corridor Study

July 17, 2012, 12:00 PM – 1:30 PM, DDOT Room 521

Faisal Hameed - DDOT
Ali Shakeri – DDOT
Wasim Raja - DDOT
Waiching Wong – DDOT
Jamie Henson – DDOT
Kristin Kersavage - DDOT
Eric Nelson – HDR
Steve Carroll – HDR
Ed Myers – Kittelson & Associates
Zachary Horowitz – Kittelson & Associates
Kevin Lee – Kittelson & Associates
Kelly Laustsen – Kittelson & Associates
Tom Urbanik – Kittelson & Associates

Introductions.

The data collection effort for the project is underway. The field work for the turning movements counts are expected to be completed by Thursday, July 19th.

The next discussion item was the traffic analysis. The conversation revolved around how to develop a set of scenarios that provides the best analysis coverage of the two specific transportation impacts that have occurred in the H Street/Benning corridor. After discussion, it was agreed that the two specific impacts: 1) removal of one lane in each direction from H Street NE/3rd Street NE to just east of Benning Road NE/Oklahoma Avenue, as part of the Great Streets streetscaping project and, 2) the addition of the streetcar within the corridor, would be analyzed individually using the following set of scenarios:

For the streetscape transportation impact(s), the following three (3) scenarios will be analyzed:

Scenario Number	Scenario Name	Analysis Year	Time Periods	Cross-section	Include Streetcar?	Model(s) for Analysis
1a	Existing Conditions	2006	AM/PM	6/8 lane	No	Synchro
1b	Design Year No-Build	2040	AM/PM	6/8 lane	Yes	Synchro
1c	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro

For the streetcar transportation impact(s), the following five (5) scenarios will be analyzed:

Scenario Number	Scenario Name	Analysis Year	Time Periods	Cross-section	Include Streetcar?	Model(s) for Analysis
2a	Existing Conditions	2012	AM/PM	4/6 lane	No	Synchro, VISSIM
2b	Opening Year No-Build	2013	AM/PM	4/6 lane	No	Synchro, VISSIM
2c	Opening Year Build	2013	AM/PM	4/6 lane	Yes	Synchro, VISSIM
2d	Design Year No-Build	2040	AM/PM	4/6 lane	No	Synchro, VISSIM
2e	Design Year Build	2040	AM/PM	4/6 lane	Yes	Synchro, VISSIM

Note that scenarios 2e and 1c are the same, and the results from a single model will be used by both scenarios.

All scenarios will first be developed for the AM and PM peak hours to meet the project deadline. The weekday midday analysis will be completed at a later date.

Existing 2012 traffic turning movement counts are being completed during the week of July 16th. Kittelson and Associates (KAI) will use engineering judgment to develop a defendable procedure to develop a seasonal adjustment factor to account for the mid-summer data collection.

2006 volumes will be developed by creating a methodology that uses DDOT historical ADT data from 2006-2012 to backcast 2012 traffic volumes to 2006.

2013 volumes will be developed by growing 2012 existing conditions volumes by approximately one percent. Historical growth rates will be used to document the selection of the growth rate.

HDR will modify and code the MWCOG travel demand model to include the transportation elements below and provide output link volumes for the following:

1. The 2012 travel demand model with 4- and 6-lane cross sections without the streetcar
2. The 2012 travel demand model with 4- and 6-lane cross sections with the streetcar
3. The 2040 travel demand model with 4- and 6-lane cross sections without the streetcar
4. The 2040 travel demand model with 4- and 6-lane cross sections with the streetcar
5. The 2040 travel demand model with 6- and 8-lane cross sections with the streetcar

Link volumes outputs should be plotted to PDF and clearly show directional vehicles movements on each link. Model runs need to be completed for AM, PM and midday time periods. Ideally, outputs should show link volumes for a single peak hour.

KAI will provide regular updates to the team in regards to the selected intersections for the air quality analysis. The three intersections with the highest total entering volume will be provided for each scenario for the air quality analysis.

There will be a weekly check-in call on Tuesday between 9 and 10 am. Call in information is: 866-994-6437 and access code #9861301. First check-in call will be 7/24 at 9 am.

KAI will provide air quality data to HDR during the week of August 20th.

Project data (with the exception of the weekday midday analysis) to be completed by the end of August.

Appendix 3
Streetscape Scenarios (1a-1c) HCM and Queuing Results

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	533	97	1253	65
v/c Ratio	0.16	0.66	0.31	0.31
Control Delay	3.6	83.9	7.2	29.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.6	83.9	7.2	29.9
Queue Length 50th (ft)	26	64	209	23
Queue Length 95th (ft)	42	#140	273	61
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)				
Base Capacity (vph)	3327	148	4095	267
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.66	0.31	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	380	115	90	1165	35	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.97		1.00	1.00	0.94	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4486		1641	4759	1743	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4486		1641	4759	1743	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	409	124	97	1253	38	27
RTOR Reduction (vph)	34	0	0	0	24	0
Lane Group Flow (vph)	499	0	97	1253	41	0
Confl. Peds. (#/hr)		25	25			
Confl. Bikes (#/hr)	2			5		
Heavy Vehicles (%)	11%	7%	10%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	71.4		8.0	83.4	7.6	
Effective Green, g (s)	72.4		9.0	84.4	9.6	
Actuated g/C Ratio	0.72		0.09	0.84	0.10	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3248		148	4017	167	
v/s Ratio Prot	0.11		c0.06	c0.26	c0.02	
v/s Ratio Perm						
v/c Ratio	0.15		0.66	0.31	0.24	
Uniform Delay, d1	4.3		44.0	1.7	41.8	
Progression Factor	1.00		1.44	3.76	1.00	
Incremental Delay, d2	0.1		10.7	0.2	1.0	
Delay (s)	4.4		74.2	6.4	42.9	
Level of Service	A		E	A	D	
Approach Delay (s)	4.4			11.3	42.9	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	419	16	32	1339	16
v/c Ratio	0.11	0.02	0.26	0.30	0.13
Control Delay	2.7	2.0	49.9	2.2	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.7	2.0	49.9	2.2	37.7
Queue Length 50th (ft)	12	0	19	0	7
Queue Length 95th (ft)	36	5	m31	116	28
Internal Link Dist (ft)	450			494	263
Turn Bay Length (ft)			100		
Base Capacity (vph)	3915	941	150	4518	213
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.11	0.02	0.21	0.30	0.08

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	390	15	30	1245	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	
Frpb, ped/bikes	1.00	0.79	1.00	1.00	0.96	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	1.00	1.00	0.95	1.00	0.97	
Satd. Flow (prot)	4631	1110	1671	4848	1683	
Flt Permitted	1.00	1.00	0.95	1.00	0.97	
Satd. Flow (perm)	4631	1110	1671	4848	1683	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	419	16	32	1339	11	5
RTOR Reduction (vph)	0	4	0	0	5	0
Lane Group Flow (vph)	419	12	32	1339	11	0
Confl. Peds. (#/hr)		93	93		19	12
Confl. Bikes (#/hr)	2			3		
Heavy Vehicles (%)	12%	15%	8%	7%	0%	0%
Turn Type	NA	Perm	Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases		2				
Actuated Green, G (s)	77.5	77.5	4.7	87.2	2.8	
Effective Green, g (s)	77.5	77.5	4.7	87.2	2.8	
Actuated g/C Ratio	0.78	0.78	0.05	0.87	0.03	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	1.0	1.0	2.0	1.0	2.0	
Lane Grp Cap (vph)	3589	860	79	4227	47	
v/s Ratio Prot	0.09		0.02	c0.28	c0.01	
v/s Ratio Perm		0.01				
v/c Ratio	0.12	0.01	0.41	0.32	0.24	
Uniform Delay, d1	2.8	2.6	46.3	1.1	47.6	
Progression Factor	0.92	0.90	1.04	2.09	1.00	
Incremental Delay, d2	0.1	0.0	1.1	0.2	0.9	
Delay (s)	2.6	2.3	49.3	2.5	48.5	
Level of Service	A	A	D	A	D	
Approach Delay (s)	2.6			3.6	48.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	430	1359	163	126
v/c Ratio	0.17	0.51	0.52	0.32
Control Delay	4.8	22.6	38.5	19.9
Queue Delay	0.0	0.9	0.0	0.0
Total Delay	4.8	23.5	38.5	19.9
Queue Length 50th (ft)	36	265	86	34
Queue Length 95th (ft)	54	312	153	85
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	2484	2644	315	395
Starvation Cap Reductn	0	914	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.79	0.52	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	310	30	45	1135	70	75	50	25	20	30	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			2.0			2.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			0.99			0.93	
Flpb, ped/bikes		1.00			0.99			0.96			1.00	
Frt		0.99			0.99			0.98			0.92	
Flt Protected		0.99			1.00			0.98			0.99	
Satd. Flow (prot)		4440			4701			1698			1591	
Flt Permitted		0.74			0.90			0.77			0.95	
Satd. Flow (perm)		3331			4252			1341			1518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	337	33	49	1234	76	82	54	27	22	33	71
RTOR Reduction (vph)	0	9	0	0	6	0	0	7	0	0	46	0
Lane Group Flow (vph)	0	421	0	0	1353	0	0	156	0	0	80	0
Confl. Peds. (#/hr)	28		56	56		28	75		16	16		75
Confl. Bikes (#/hr)	1	4			5	1	1	8			3	
Heavy Vehicles (%)	4%	15%	0%	2%	8%	8%	1%	0%	9%	6%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			59.0			20.0			20.0	
Effective Green, g (s)		72.0			62.0			23.0			23.0	
Actuated g/C Ratio		0.72			0.62			0.23			0.23	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		2498			2636			308			349	
v/s Ratio Prot		c0.02										
v/s Ratio Perm		0.11			c0.32			c0.12			0.05	
v/c Ratio		0.17			0.51			0.51			0.23	
Uniform Delay, d1		4.5			10.6			33.6			31.3	
Progression Factor		1.15			2.08			1.00			1.00	
Incremental Delay, d2		0.1			0.7			5.8			1.5	
Delay (s)		5.3			22.7			39.4			32.8	
Level of Service		A			C			D			C	
Approach Delay (s)		5.3			22.7			39.4			32.8	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	366	1242	196	82
v/c Ratio	0.13	0.45	0.36	0.19
Control Delay	5.7	10.1	29.1	8.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.7	10.1	29.1	8.3
Queue Length 50th (ft)	17	136	97	2
Queue Length 95th (ft)	23	167	159	37
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	2821	2788	547	442
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.45	0.36	0.19

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	330	25	35	1170	0	0	0	0	35	155	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.91			0.91						1.00	1.00
Frpb, ped/bikes		0.99			1.00						1.00	0.97
Flpb, ped/bikes		1.00			1.00						1.00	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			1.00						0.99	1.00
Satd. Flow (prot)		4465			4819						1764	1334
Flt Permitted		1.00			0.92						0.99	1.00
Satd. Flow (perm)		4465			4427						1764	1334
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	340	26	36	1206	0	0	0	0	36	160	82
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	55
Lane Group Flow (vph)	0	357	0	0	1242	0	0	0	0	0	196	27
Confl. Peds. (#/hr)	23		42	42		23	8		13	13		8
Confl. Bikes (#/hr)		2		1	5			1			12	
Heavy Vehicles (%)	0%	14%	5%	12%	7%	0%	0%	0%	0%	12%	5%	18%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		61.0			61.0						28.0	28.0
Effective Green, g (s)		63.0			63.0						31.0	29.0
Actuated g/C Ratio		0.63			0.63						0.31	0.29
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		2813			2789						547	387
v/s Ratio Prot		0.08										
v/s Ratio Perm					c0.28						0.11	0.02
v/c Ratio		0.13			0.45						0.36	0.07
Uniform Delay, d1		7.4			9.5						26.8	25.7
Progression Factor		0.80			1.00						1.00	1.00
Incremental Delay, d2		0.1			0.5						1.8	0.4
Delay (s)		6.1			10.0						28.6	26.1
Level of Service		A			B						C	C
Approach Delay (s)		6.1			10.0			0.0			27.9	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	384	1232	315
v/c Ratio	0.18	0.42	0.57
Control Delay	8.4	1.5	32.3
Queue Delay	0.0	0.0	0.0
Total Delay	8.4	1.5	32.3
Queue Length 50th (ft)	35	13	161
Queue Length 95th (ft)	49	17	250
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	2151	2944	553
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.18	0.42	0.57

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	320	0	0	1120	50	60	195	45	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.91			0.91			1.00				
Frpb, ped/bikes		1.00			0.99			0.99				
Flpb, ped/bikes		1.00			1.00			0.99				
Frt		1.00			0.99			0.98				
Flt Protected		0.99			1.00			0.99				
Satd. Flow (prot)		4497			4738			1710				
Flt Permitted		0.77			1.00			0.99				
Satd. Flow (perm)		3471			4738			1710				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	337	0	0	1179	53	63	205	47	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	384	0	0	1227	0	0	309	0	0	0	0
Confl. Peds. (#/hr)	34		44	44		34	20		46	46		20
Confl. Bikes (#/hr)		3		1	4			11			1	
Heavy Vehicles (%)	32%	12%	0%	0%	8%	11%	2%	5%	15%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		60.0			60.0			29.0				
Effective Green, g (s)		62.0			62.0			32.0				
Actuated g/C Ratio		0.62			0.62			0.32				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		2152			2938			547				
v/s Ratio Prot					c0.26							
v/s Ratio Perm		0.11						0.18				
v/c Ratio		0.18			0.42			0.56				
Uniform Delay, d1		8.1			9.7			28.2				
Progression Factor		1.00			0.12			1.00				
Incremental Delay, d2		0.2			0.4			4.2				
Delay (s)		8.3			1.5			32.4				
Level of Service		A			A			C				
Approach Delay (s)		8.3			1.5			32.4			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBT
Lane Group Flow (vph)	388	1298	101
v/c Ratio	0.14	0.43	0.22
Control Delay	4.3	0.7	18.7
Queue Delay	0.0	0.1	0.0
Total Delay	4.3	0.8	18.7
Queue Length 50th (ft)	17	4	28
Queue Length 95th (ft)	24	6	70
Internal Link Dist (ft)	570	260	350
Turn Bay Length (ft)			
Base Capacity (vph)	2694	3011	457
Starvation Cap Reductn	0	646	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.55	0.22

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	320	35	30	1170	20	0	0	0	15	35	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.91			0.91						1.00	
Frpb, ped/bikes		0.96			1.00						0.96	
Flpb, ped/bikes		1.00			0.99						0.99	
Frt		0.99			1.00						0.94	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		4380			4797						1631	
Flt Permitted		0.90			0.92						0.99	
Satd. Flow (perm)		3945			4422						1631	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	340	37	32	1245	21	0	0	0	16	37	48
RTOR Reduction (vph)	0	12	0	0	2	0	0	0	0	0	33	0
Lane Group Flow (vph)	0	376	0	0	1296	0	0	0	0	0	68	0
Confl. Peds. (#/hr)	30		82	82		30	43		26	26		43
Confl. Bikes (#/hr)	1	5			5			1			2	
Heavy Vehicles (%)	0%	12%	18%	7%	7%	0%	0%	0%	0%	0%	3%	5%
Parking (#/hr)						0						0
Turn Type	Perm	NA		Perm	NA					Perm	NA	
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		66.0			66.0						23.0	
Effective Green, g (s)		68.0			68.0						26.0	
Actuated g/C Ratio		0.68			0.68						0.26	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		2683			3007						424	
v/s Ratio Prot												
v/s Ratio Perm		0.10			c0.29						0.04	
v/c Ratio		0.14			0.43						0.16	
Uniform Delay, d1		5.7			7.2						28.6	
Progression Factor		0.82			0.04						1.00	
Incremental Delay, d2		0.1			0.4						0.8	
Delay (s)		4.8			0.7						29.4	
Level of Service		A			A						C	
Approach Delay (s)		4.8			0.7			0.0			29.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	361	1285	226	199
v/c Ratio	0.17	0.55	0.34	0.30
Control Delay	18.9	25.8	20.7	19.6
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	18.9	25.9	20.7	19.6
Queue Length 50th (ft)	45	236	92	77
Queue Length 95th (ft)	68	293	151	130
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	2143	2343	662	664
Starvation Cap Reductn	0	246	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.61	0.34	0.30

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	315	10	10	1160	25	30	155	25	20	135	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.96	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		4586			4806			1649			1625	
Flt Permitted		0.90			0.94			0.94			0.96	
Satd. Flow (perm)		4114			4501			1565			1564	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	339	11	11	1247	27	32	167	27	22	145	32
RTOR Reduction (vph)	0	3	0	0	2	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	358	0	0	1283	0	0	221	0	0	192	0
Confl. Peds. (#/hr)	85		147	147		85	123		92	92		123
Confl. Bikes (#/hr)		3		3	8			5		1	8	1
Heavy Vehicles (%)	0%	11%	30%	17%	7%	0%	0%	11%	5%	7%	10%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		50.0			50.0			40.0			40.0	
Effective Green, g (s)		52.0			52.0			42.0			42.0	
Actuated g/C Ratio		0.52			0.52			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2139			2341			657			657	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.28			c0.14			0.12	
v/c Ratio		0.17			0.55			0.34			0.29	
Uniform Delay, d1		12.6			16.1			19.6			19.2	
Progression Factor		1.50			1.53			1.00			1.00	
Incremental Delay, d2		0.2			0.9			1.4			1.1	
Delay (s)		19.1			25.6			21.0			20.3	
Level of Service		B			C			C			C	
Approach Delay (s)		19.1			25.6			21.0			20.3	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	380	1263	74	53
v/c Ratio	0.14	0.42	0.19	0.14
Control Delay	6.1	2.1	24.8	21.5
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	6.1	2.5	24.8	21.5
Queue Length 50th (ft)	20	6	28	16
Queue Length 95th (ft)	23	50	66	48
Internal Link Dist (ft)	264	235	401	349
Turn Bay Length (ft)				
Base Capacity (vph)	2722	2982	385	375
Starvation Cap Reductn	0	1053	0	0
Spillback Cap Reductn	0	213	1	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.65	0.19	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	315	35	15	1145	40	30	20	20	15	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.97			1.00			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			1.00			0.96			0.95	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4489			4763			1743			1610	
Flt Permitted		0.90			0.93			0.87			0.92	
Satd. Flow (perm)		4045			4446			1546			1497	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	332	37	16	1205	42	32	21	21	16	16	21
RTOR Reduction (vph)	0	12	0	0	4	0	0	14	0	0	16	0
Lane Group Flow (vph)	0	368	0	0	1259	0	0	60	0	0	37	0
Confl. Peds. (#/hr)	27		59	59		27	19		23	23		19
Confl. Bikes (#/hr)		7			9		1		1			
Heavy Vehicles (%)	0%	12%	3%	0%	8%	0%	0%	0%	0%	8%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			24.0			24.0	
Actuated g/C Ratio		0.67			0.67			0.24			0.24	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2710			2979			371			359	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.28			c0.04			0.02	
v/c Ratio		0.14			0.42			0.16			0.10	
Uniform Delay, d1		6.0			7.6			30.0			29.6	
Progression Factor		1.11			0.22			1.00			1.00	
Incremental Delay, d2		0.1			0.4			0.9			0.6	
Delay (s)		6.7			2.1			31.0			30.2	
Level of Service		A			A			C			C	
Approach Delay (s)		6.7			2.1			31.0			30.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	376	1258	76	75
v/c Ratio	0.13	0.45	0.25	0.18
Control Delay	9.4	16.6	28.0	27.2
Queue Delay	0.0	6.6	0.0	0.0
Total Delay	9.4	23.2	28.0	27.2
Queue Length 50th (ft)	56	228	30	32
Queue Length 95th (ft)	78	284	71	70
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	2900	2815	301	418
Starvation Cap Reductn	0	1500	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.96	0.25	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	320	30	35	1135	0	50	0	20	5	50	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.98			1.00	
Frt		0.99			1.00			0.96			0.97	
Flt Protected		1.00			1.00			0.97			1.00	
Satd. Flow (prot)		4516			4817			1693			1799	
Flt Permitted		1.00			0.91			0.78			0.98	
Satd. Flow (perm)		4516			4400			1361			1772	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	344	32	38	1220	0	54	0	22	5	54	16
RTOR Reduction (vph)	0	11	0	0	0	0	0	15	0	0	10	0
Lane Group Flow (vph)	0	365	0	0	1258	0	0	61	0	0	65	0
Confl. Peds. (#/hr)	41		62	62		41	16		8	8		16
Confl. Bikes (#/hr)		2			7							
Heavy Vehicles (%)	0%	11%	8%	8%	7%	0%	0%	0%	6%	20%	0%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		2890			2816			286			408	
v/s Ratio Prot		0.08										
v/s Ratio Perm					c0.29			c0.04			0.04	
v/c Ratio		0.13			0.45			0.21			0.16	
Uniform Delay, d1		7.1			9.1			32.7			30.8	
Progression Factor		1.43			1.76			1.00			1.00	
Incremental Delay, d2		0.1			0.5			1.7			0.8	
Delay (s)		10.1			16.4			34.4			31.6	
Level of Service		B			B			C			C	
Approach Delay (s)		10.1			16.4			34.4			31.6	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	359	1224	67	99
v/c Ratio	0.14	0.46	0.12	0.16
Control Delay	27.6	6.6	19.8	19.8
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	27.6	6.7	19.8	19.9
Queue Length 50th (ft)	74	50	24	36
Queue Length 95th (ft)	102	65	55	73
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	2520	2641	578	603
Starvation Cap Reductn	0	402	0	0
Spillback Cap Reductn	0	237	14	15
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.55	0.12	0.17

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	330	10	20	1130	25	20	35	10	15	60	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		1.00			1.00			0.98			0.97	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4608			4805			1756			1750	
Flt Permitted		0.93			0.93			0.92			0.96	
Satd. Flow (perm)		4267			4470			1634			1696	
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)	5	344	10	21	1177	26	21	36	10	16	62	21
RTOR Reduction (vph)	0	3	0	0	2	0	0	7	0	0	10	0
Lane Group Flow (vph)	0	356	0	0	1222	0	0	61	0	0	89	0
Confl. Peds. (#/hr)	47		65	65		47	17		60	60		17
Confl. Bikes (#/hr)		10			11			3			5	1
Heavy Vehicles (%)	0%	11%	20%	0%	7%	0%	0%	0%	14%	7%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		57.0			57.0			32.0			32.0	
Effective Green, g (s)		59.0			59.0			35.0			35.0	
Actuated g/C Ratio		0.59			0.59			0.35			0.35	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2518			2637			572			594	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.27			0.04			c0.05	
v/c Ratio		0.14			0.46			0.11			0.15	
Uniform Delay, d1		9.2			11.6			21.9			22.3	
Progression Factor		3.04			0.52			1.00			1.00	
Incremental Delay, d2		0.1			0.6			0.4			0.5	
Delay (s)		28.0			6.5			22.3			22.8	
Level of Service		C			A			C			C	
Approach Delay (s)		28.0			6.5			22.3			22.8	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	375	1206	74	90
v/c Ratio	0.13	0.37	0.22	0.23
Control Delay	1.0	1.6	30.6	27.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.0	1.6	30.6	27.1
Queue Length 50th (ft)	5	19	35	37
Queue Length 95th (ft)	7	24	75	81
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	2979	3247	330	388
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.37	0.22	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	335	10	15	1115	15	35	25	10	10	50	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		1.00			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4573			4829			1706			1743	
Flt Permitted		0.90			0.93			0.84			0.97	
Satd. Flow (perm)		4132			4507			1472			1698	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	353	11	16	1174	16	37	26	11	11	53	26
RTOR Reduction (vph)	0	3	0	0	1	0	0	6	0	0	15	0
Lane Group Flow (vph)	0	372	0	0	1205	0	0	68	0	0	75	0
Confl. Peds. (#/hr)	39		54	54		39	17		27	27		17
Confl. Bikes (#/hr)		9			12	1		3		1	4	
Heavy Vehicles (%)	17%	12%	11%	0%	7%	0%	9%	0%	0%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		70.0			70.0			19.0			19.0	
Effective Green, g (s)		72.0			72.0			22.0			22.0	
Actuated g/C Ratio		0.72			0.72			0.22			0.22	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2975			3245			324			374	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.27			c0.05			0.04	
v/c Ratio		0.13			0.37			0.21			0.20	
Uniform Delay, d1		4.3			5.3			31.9			31.8	
Progression Factor		0.21			0.25			1.00			1.00	
Incremental Delay, d2		0.1			0.3			1.5			1.2	
Delay (s)		1.0			1.6			33.4			33.0	
Level of Service		A			A			C			C	
Approach Delay (s)		1.0			1.6			33.4			33.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	375	1148	205	68
v/c Ratio	0.13	0.38	0.50	0.16
Control Delay	1.6	4.4	34.8	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.6	4.4	34.8	21.6
Queue Length 50th (ft)	6	44	107	23
Queue Length 95th (ft)	9	53	178	57
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	2821	3015	408	426
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.38	0.50	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	335	10	20	1060	10	65	105	25	20	25	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		4644			4836			1668			1677	
Flt Permitted		0.90			0.93			0.88			0.89	
Satd. Flow (perm)		4204			4495			1495			1521	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	353	11	21	1116	11	68	111	26	21	26	21
RTOR Reduction (vph)	0	3	0	0	1	0	0	5	0	0	15	0
Lane Group Flow (vph)	0	372	0	0	1147	0	0	200	0	0	53	0
Confl. Peds. (#/hr)	22		28	28		22	6		15	15		6
Confl. Bikes (#/hr)		10			12				1		7	1
Heavy Vehicles (%)	10%	11%	0%	0%	7%	0%	8%	12%	0%	7%	9%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2817			3012			404			411	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.26			c0.13			0.03	
v/c Ratio		0.13			0.38			0.49			0.13	
Uniform Delay, d1		6.0			7.3			30.8			27.6	
Progression Factor		0.27			0.55			1.00			1.00	
Incremental Delay, d2		0.1			0.3			4.3			0.6	
Delay (s)		1.7			4.3			35.0			28.2	
Level of Service		A			A			D			C	
Approach Delay (s)		1.7			4.3			35.0			28.2	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	8.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	392	1206	126	251
v/c Ratio	0.19	0.47	0.25	0.25
Control Delay	21.4	9.0	26.1	23.7
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	21.4	9.0	26.1	23.7
Queue Length 50th (ft)	77	106	63	59
Queue Length 95th (ft)	98	127	115	92
Internal Link Dist (ft)	721	273		111
Turn Bay Length (ft)				
Base Capacity (vph)	2029	2570	509	994
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	362	319	0	57
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.54	0.25	0.27

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	340	40	110	1060	0	0	0	0	245	90	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.91			0.91					0.91	0.91	
Frpb, ped/bikes		0.99			1.00					1.00	0.98	
Flpb, ped/bikes		1.00			0.99					0.98	0.99	
Frt		0.98			1.00					1.00	0.98	
Flt Protected		1.00			1.00					0.95	0.98	
Satd. Flow (prot)		4580			4762					1543	2981	
Flt Permitted		1.00			0.85					0.95	0.98	
Satd. Flow (perm)		4580			4049					1543	2981	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	351	41	113	1093	0	0	0	0	253	93	31
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	377	0	0	1206	0	0	0	0	126	240	0
Confl. Peds. (#/hr)	47		69	69		47	102		17	17		102
Confl. Bikes (#/hr)		9	1		7	2	1	2			6	3
Heavy Vehicles (%)	0%	11%	0%	6%	8%	0%	0%	0%	0%	4%	14%	4%
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		43.0			59.0					31.0	31.0	
Effective Green, g (s)		44.0			61.0					33.0	33.0	
Actuated g/C Ratio		0.44			0.61					0.33	0.33	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		2015			2570					509	984	
v/s Ratio Prot		0.08			c0.07							
v/s Ratio Perm					c0.22					c0.08	0.08	
v/c Ratio		0.19			0.47					0.25	0.24	
Uniform Delay, d1		17.1			10.7					24.4	24.4	
Progression Factor		1.32			0.76					1.00	1.00	
Incremental Delay, d2		0.2			0.6					1.2	0.6	
Delay (s)		22.8			8.7					25.6	25.0	
Level of Service		C			A					C	C	
Approach Delay (s)		22.8			8.7			0.0			25.2	
Approach LOS		C			A			A			C	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	SBR	NEL
Lane Group Flow (vph)	120	489	1896	219	854	203
v/c Ratio	0.58	0.17	0.67	0.55	0.79	0.55
Control Delay	41.2	9.0	14.3	42.1	19.4	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	41.2	9.0	14.3	42.1	19.6	37.1
Queue Length 50th (ft)	33	47	98	62	234	62
Queue Length 95th (ft)	85	63	177	101	274	100
Internal Link Dist (ft)		124	112	356		542
Turn Bay Length (ft)						
Base Capacity (vph)	207	2798	2823	395	1080	370
Starvation Cap Reductn	0	0	0	0	8	0
Spillback Cap Reductn	0	0	0	0	22	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.17	0.67	0.55	0.81	0.55

Intersection Summary

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	115	460	10	1755	65	170	40	535	285	150	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	3.0		2.0		4.0		7.0		7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.76		0.97	
Frpb, ped/bikes	1.00	1.00		1.00		0.98		1.00		0.98	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	
Frt	1.00	1.00		0.99		0.97		0.85		0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (prot)	1703	4739		6123		2876		3171		2645	
Flt Permitted	0.08	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (perm)	149	4739		6123		2876		3171		2645	
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
Adj. Flow (vph)	120	479	10	1828	68	177	42	557	297	156	47
RTOR Reduction (vph)	0	2	0	5	0	21	0	97	0	0	0
Lane Group Flow (vph)	120	487	0	1891	0	198	0	757	0	203	0
Confl. Peds. (#/hr)	51		4		26		29	4	1	26	29
Confl. Bikes (#/hr)			4					9	2		1
Heavy Vehicles (%)	6%	9%	13%	6%	6%	6%	5%	7%	11%	13%	10%
Parking (#/hr)						2				2	
Turn Type	pm+pt	NA		NA		NA		custom		NA	
Protected Phases	5	2		6		3		8		4	
Permitted Phases	2							8			
Actuated Green, G (s)	56.0	56.0		44.0		13.0		31.0		14.0	
Effective Green, g (s)	56.0	59.0		46.0		13.0		31.0		14.0	
Actuated g/C Ratio	0.56	0.59		0.46		0.13		0.31		0.14	
Clearance Time (s)	6.0	6.0		4.0		4.0		7.0		7.0	
Lane Grp Cap (vph)	208	2796		2817		374		983		370	
v/s Ratio Prot	c0.05	0.10		c0.31		0.07		c0.24		0.08	
v/s Ratio Perm	0.28										
v/c Ratio	0.58	0.17		0.67		0.53		0.77		0.55	
Uniform Delay, d1	30.8	9.4		21.1		40.6		31.3		40.1	
Progression Factor	0.99	0.95		0.62		1.00		0.52		0.78	
Incremental Delay, d2	11.1	0.1		1.2		5.3		5.6		5.4	
Delay (s)	41.5	9.0		14.2		45.9		21.7		36.7	
Level of Service	D	A		B		D		C		D	
Approach Delay (s)		15.4		14.2		45.9				36.7	
Approach LOS		B		B		D				D	

Intersection Summary			
HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	66	52	55	538	822
v/c Ratio	0.06	0.07	0.06	0.53	0.76
Control Delay	5.7	7.9	7.2	40.7	39.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	7.9	7.2	40.7	39.7
Queue Length 50th (ft)	9	11	10	106	178
Queue Length 95th (ft)	28	31	30	127	206
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	1082	738	967	2511	2189
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.07	0.06	0.21	0.38

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	20	70	25	5	35	405	60	5	730	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		0.99		1.00	1.00			0.99			1.00	
Flpb, ped/bikes		0.99		0.99	0.99			1.00			1.00	
Frt		0.95		1.00	0.99			0.98			0.99	
Flt Protected		0.98		0.95	0.98			1.00			1.00	
Satd. Flow (prot)		1763		1510	1608			4700			4763	
Flt Permitted		0.93		0.71	0.91			0.80			0.94	
Satd. Flow (perm)		1658		1135	1487			3778			4459	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	22	22	22	75	27	5	38	435	65	5	785	32
RTOR Reduction (vph)	0	8	0	0	2	0	0	38	0	0	6	0
Lane Group Flow (vph)	0	58	0	52	53	0	0	500	0	0	816	0
Confl. Peds. (#/hr)	16		11	11		16	24		32	32		24
Confl. Bikes (#/hr)				2				4	1		1	
Heavy Vehicles (%)	0%	0%	0%	12%	5%	0%	0%	7%	13%	50%	8%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		65.0		65.0	65.0			23.0			23.0	
Effective Green, g (s)		65.0		65.0	65.0			26.0			24.0	
Actuated g/C Ratio		0.65		0.65	0.65			0.26			0.24	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)		3.0		3.0	3.0			1.0			1.0	
Lane Grp Cap (vph)		1078		738	967			982			1070	
v/s Ratio Prot												
v/s Ratio Perm		0.04		c0.05	0.04			0.13			c0.18	
v/c Ratio		0.05		0.07	0.06			0.51			0.76	
Uniform Delay, d1		6.3		6.4	6.4			31.6			35.3	
Progression Factor		1.00		1.00	1.00			1.40			1.00	
Incremental Delay, d2		0.0		0.2	0.1			0.1			2.9	
Delay (s)		6.4		6.6	6.5			44.3			38.3	
Level of Service		A		A	A			D			D	
Approach Delay (s)		6.4			6.5			44.3			38.3	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	36.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	11	576	1909	135	21
v/c Ratio	0.04	0.12	0.45	0.56	0.08
Control Delay	2.9	2.4	2.0	40.2	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	2.4	2.0	40.2	27.4
Queue Length 50th (ft)	1	16	26	68	9
Queue Length 95th (ft)	m4	28	44	120	28
Internal Link Dist (ft)		329	556	273	214
Turn Bay Length (ft)	250				
Base Capacity (vph)	303	4677	4252	408	435
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.04	0.12	0.45	0.33	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	525	10	25	1740	10	75	15	35	10	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0			2.0			3.0			3.0	
Lane Util. Factor	1.00	0.86			0.86			1.00			1.00	
Frpb, ped/bikes	1.00	1.00			1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00			1.00			0.98			0.98	
Frt	1.00	1.00			1.00			0.96			0.97	
Flt Protected	0.95	1.00			1.00			0.97			0.97	
Satd. Flow (prot)	1805	5973			6094			1632			1652	
Flt Permitted	0.08	1.00			0.92			0.81			0.88	
Satd. Flow (perm)	152	5973			5589			1357			1490	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	565	11	27	1871	11	81	16	38	11	5	5
RTOR Reduction (vph)	0	1	0	0	1	0	0	17	0	0	4	0
Lane Group Flow (vph)	11	575	0	0	1908	0	0	118	0	0	17	0
Confl. Peds. (#/hr)	26		31	31		26	23		50	50		23
Confl. Bikes (#/hr)		4			6		2	3		1	1	
Heavy Vehicles (%)	0%	9%	0%	5%	7%	0%	5%	0%	7%	10%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	74.3	74.3			68.9			13.7			13.7	
Effective Green, g (s)	78.3	78.3			72.9			16.7			16.7	
Actuated g/C Ratio	0.78	0.78			0.73			0.17			0.17	
Clearance Time (s)	4.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)	208	4677			4074			227			249	
v/s Ratio Prot	0.00	c0.10										
v/s Ratio Perm	0.04				c0.34			c0.09			0.01	
v/c Ratio	0.05	0.12			0.47			0.52			0.07	
Uniform Delay, d1	2.9	2.6			5.6			38.0			35.1	
Progression Factor	0.93	0.78			0.32			1.00			1.00	
Incremental Delay, d2	0.0	0.1			0.0			2.2			0.1	
Delay (s)	2.7	2.1			1.8			40.2			35.2	
Level of Service	A	A			A			D			D	
Approach Delay (s)		2.1			1.8			40.2			35.2	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	4.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	49	577	2522	247	384
v/c Ratio	0.21	0.13	0.72	0.61	0.46
Control Delay	17.1	12.7	15.5	40.1	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	12.7	15.5	40.1	33.4
Queue Length 50th (ft)	17	57	302	141	108
Queue Length 95th (ft)	41	79	426	200	138
Internal Link Dist (ft)		556	454		345
Turn Bay Length (ft)	250				
Base Capacity (vph)	238	4519	3514	669	1358
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.13	0.72	0.37	0.28

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	440	85	50	1750	495	0	0	0	225	325	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0			3.0					3.0	3.0	
Lane Util. Factor	1.00	0.86			0.86					1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99					1.00	1.00	
Flpb, ped/bikes	1.00	1.00			1.00					0.98	1.00	
Frt	1.00	0.98			0.97					1.00	0.99	
Flt Protected	0.95	1.00			1.00					0.95	1.00	
Satd. Flow (prot)	1805	6345			6226					1761	3564	
Flt Permitted	0.06	1.00			0.90					0.95	1.00	
Satd. Flow (perm)	120	6345			5593					1761	3564	
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)	49	484	93	55	1923	544	0	0	0	247	357	27
RTOR Reduction (vph)	0	18	0	0	41	0	0	0	0	0	5	0
Lane Group Flow (vph)	49	559	0	0	2481	0	0	0	0	247	379	0
Confl. Peds. (#/hr)	18		13	13		18	19		21	21		19
Confl. Bikes (#/hr)					6							
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	68.9	68.9			59.3					20.1	20.1	
Effective Green, g (s)	70.9	70.9			61.3					23.1	23.1	
Actuated g/C Ratio	0.71	0.71			0.61					0.23	0.23	
Clearance Time (s)	4.0	5.0			5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0			1.0					3.0	3.0	
Lane Grp Cap (vph)	213	4499			3429					407	823	
v/s Ratio Prot	c0.02	0.09									0.11	
v/s Ratio Perm	0.15				c0.44					c0.14		
v/c Ratio	0.23	0.12			0.72					0.61	0.46	
Uniform Delay, d1	8.7	4.6			13.5					34.4	33.1	
Progression Factor	2.83	2.70			1.00					1.00	1.00	
Incremental Delay, d2	0.2	0.1			0.7					2.6	0.4	
Delay (s)	24.8	12.6			14.1					36.9	33.5	
Level of Service	C	B			B					D	C	
Approach Delay (s)		13.6			14.1			0.0			34.8	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	673	2095	294	116
v/c Ratio	0.17	0.47	0.70	0.25
Control Delay	6.1	8.1	43.3	22.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.1	8.1	43.3	22.2
Queue Length 50th (ft)	40	163	169	43
Queue Length 95th (ft)	59	213	249	85
Internal Link Dist (ft)	223	206		315
Turn Bay Length (ft)				
Base Capacity (vph)	4053	4448	497	534
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.47	0.59	0.22

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	600	0	0	1825	60	265	65	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		3.0	3.0				
Lane Util. Factor		0.86			0.86		1.00	1.00				
Frpb, ped/bikes		1.00			1.00		1.00	0.99				
Flpb, ped/bikes		1.00			1.00		0.95	1.00				
Frt		1.00			1.00		1.00	0.94				
Flt Protected		1.00			1.00		0.95	1.00				
Satd. Flow (prot)		6533			6489		1715	1765				
Flt Permitted		0.91			1.00		0.95	1.00				
Satd. Flow (perm)		5915			6489		1715	1765				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	667	0	0	2028	67	294	72	44	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	673	0	0	2092	0	294	93	0	0	0	0
Confl. Peds. (#/hr)	14		13	13		14	40		22	22		40
Confl. Bikes (#/hr)		2			11							
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)		66.5			66.5		21.5	21.5				
Effective Green, g (s)		68.5			68.5		24.5	24.5				
Actuated g/C Ratio		0.68			0.68		0.24	0.24				
Clearance Time (s)		6.0			6.0		6.0	6.0				
Vehicle Extension (s)		1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)		4052			4445		420	432				
v/s Ratio Prot					c0.32			0.05				
v/s Ratio Perm		0.11					c0.17					
v/c Ratio		0.17			0.47		0.70	0.21				
Uniform Delay, d1		5.6			7.3		34.4	30.1				
Progression Factor		1.00			1.00		1.00	1.00				
Incremental Delay, d2		0.0			0.4		5.1	0.2				
Delay (s)		5.6			7.7		39.5	30.3				
Level of Service		A			A		D	C				
Approach Delay (s)		5.6			7.7			36.9			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	702	2078	61	61
v/c Ratio	0.15	0.41	0.34	0.29
Control Delay	2.0	2.9	38.7	37.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	2.0	2.9	38.7	37.4
Queue Length 50th (ft)	20	81	30	30
Queue Length 95th (ft)	33	120	66	66
Internal Link Dist (ft)	284	248	445	227
Turn Bay Length (ft)				
Base Capacity (vph)	4826	5104	401	469
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.41	0.15	0.13

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	585	30	10	1830	10	35	10	10	15	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		0.86			0.86			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			1.00			0.98			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		6476			6527			1781			1758	
Flt Permitted		0.88			0.93			0.76			0.92	
Satd. Flow (perm)		5721			6056			1403			1644	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	11	657	34	11	2056	11	39	11	11	17	22	22
RTOR Reduction (vph)	0	3	0	0	0	0	0	10	0	0	9	0
Lane Group Flow (vph)	0	699	0	0	2078	0	0	51	0	0	52	0
Confl. Peds. (#/hr)	14		1	1		14	8		6	6		8
Confl. Bikes (#/hr)		3			6						6	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		80.3			80.3			7.7			7.7	
Effective Green, g (s)		82.3			82.3			10.7			10.7	
Actuated g/C Ratio		0.82			0.82			0.11			0.11	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)		4708			4984			150			176	
v/s Ratio Prot												
v/s Ratio Perm		0.12			c0.34			c0.04			0.03	
v/c Ratio		0.15			0.42			0.34			0.30	
Uniform Delay, d1		1.8			2.4			41.4			41.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			1.4			0.9	
Delay (s)		1.8			2.4			42.7			42.1	
Level of Service		A			A			D			D	
Approach Delay (s)		1.8			2.4			42.7			42.1	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	739	2193	28
v/c Ratio	0.13	0.38	0.15
Control Delay	1.3	1.8	30.5
Queue Delay	0.0	0.1	0.0
Total Delay	1.3	1.9	30.5
Queue Length 50th (ft)	18	73	10
Queue Length 95th (ft)	26	94	35
Internal Link Dist (ft)	184	190	477
Turn Bay Length (ft)			
Base Capacity (vph)	5841	5841	683
Starvation Cap Reductn	0	1897	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.56	0.04

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑			↑↑↑↑	↰	
Volume (vph)	650	0	0	1930	15	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	6536			6536	1732	
Flt Permitted	1.00			1.00	0.97	
Satd. Flow (perm)	6536			6536	1732	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	739	0	0	2193	17	11
RTOR Reduction (vph)	0	0	0	0	10	0
Lane Group Flow (vph)	739	0	0	2193	18	0
Confl. Peds. (#/hr)					2	8
Confl. Bikes (#/hr)	4			4		
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.4			83.4	4.6	
Effective Green, g (s)	85.4			85.4	7.6	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5582			5582	132	
v/s Ratio Prot	0.11			c0.34	c0.01	
v/s Ratio Perm						
v/c Ratio	0.13			0.39	0.14	
Uniform Delay, d1	1.2			1.6	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.0			0.2	0.5	
Delay (s)	1.3			1.8	43.6	
Level of Service	A			A	D	
Approach Delay (s)	1.3			1.8	43.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	702	2159	69
v/c Ratio	0.22	0.56	0.14
Control Delay	7.4	4.1	20.2
Queue Delay	0.0	0.2	0.0
Total Delay	7.4	4.3	20.2
Queue Length 50th (ft)	47	24	22
Queue Length 95th (ft)	61	26	56
Internal Link Dist (ft)	171	174	446
Turn Bay Length (ft)			
Base Capacity (vph)	3177	3864	504
Starvation Cap Reductn	0	684	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.22	0.68	0.14

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	30	630	1825	205	45	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	
Lane Util. Factor		0.86	0.86		1.00	
Frpb, ped/bikes		1.00	0.99		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.98		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		6059	5926		1686	
Flt Permitted		0.81	1.00		0.97	
Satd. Flow (perm)		4890	5926		1686	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	670	1941	218	48	21
RTOR Reduction (vph)	0	0	12	0	15	0
Lane Group Flow (vph)	0	702	2147	0	54	0
Confl. Peds. (#/hr)	17			17	19	16
Heavy Vehicles (%)	0%	8%	8%	5%	5%	0%
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)		63.0	63.0		26.0	
Effective Green, g (s)		65.0	65.0		29.0	
Actuated g/C Ratio		0.65	0.65		0.29	
Clearance Time (s)		5.0	5.0		6.0	
Vehicle Extension (s)		1.0	1.0		3.0	
Lane Grp Cap (vph)		3179	3852		489	
v/s Ratio Prot			c0.36		c0.03	
v/s Ratio Perm		0.14				
v/c Ratio		0.22	0.56		0.11	
Uniform Delay, d1		7.2	9.6		26.0	
Progression Factor		1.00	0.38		1.00	
Incremental Delay, d2		0.0	0.5		0.5	
Delay (s)		7.2	4.1		26.5	
Level of Service		A	A		C	
Approach Delay (s)		7.2	4.1		26.5	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	734	2282	75
v/c Ratio	0.16	0.60	0.19
Control Delay	2.6	7.5	32.6
Queue Delay	0.1	0.0	0.0
Total Delay	2.7	7.5	32.6
Queue Length 50th (ft)	20	197	39
Queue Length 95th (ft)	25	231	78
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	4629	3791	478
Starvation Cap Reductn	2269	0	0
Spillback Cap Reductn	0	28	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.61	0.16

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	660	30	120	2025	45	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	6026			6047	1709	
Flt Permitted	1.00			0.81	0.97	
Satd. Flow (perm)	6026			4935	1709	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	702	32	128	2154	48	27
RTOR Reduction (vph)	3	0	0	0	0	0
Lane Group Flow (vph)	731	0	0	2282	75	0
Confl. Peds. (#/hr)		1	1		1	1
Heavy Vehicles (%)	8%	0%	4%	8%	2%	2%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	73.0			73.0	16.0	
Effective Green, g (s)	75.0			75.0	19.0	
Actuated g/C Ratio	0.75			0.75	0.19	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	4520			3701	325	
v/s Ratio Prot	0.12				c0.04	
v/s Ratio Perm				c0.46		
v/c Ratio	0.16			0.62	0.23	
Uniform Delay, d1	3.6			5.8	34.3	
Progression Factor	0.62			1.00	1.00	
Incremental Delay, d2	0.1			0.2	0.4	
Delay (s)	2.3			6.0	34.7	
Level of Service	A			A	C	
Approach Delay (s)	2.3			6.0	34.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	5.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	1224	53	564	202
v/c Ratio	0.33	0.56	0.14	0.43
Control Delay	4.8	60.4	2.4	24.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.8	60.4	2.4	24.7
Queue Length 50th (ft)	84	19	15	34
Queue Length 95th (ft)	119	#74	50	65
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)				
Base Capacity (vph)	3655	94	3914	904
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.56	0.14	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1060	90	50	530	105	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4864		1570	4759	3347	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4864		1570	4759	3347	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1128	96	53	564	112	90
RTOR Reduction (vph)	6	0	0	0	79	0
Lane Group Flow (vph)	1218	0	53	564	123	0
Confl. Peds. (#/hr)		22	22			
Heavy Vehicles (%)	4%	16%	15%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	73.2		4.0	81.2	9.8	
Effective Green, g (s)	74.2		5.0	82.2	11.8	
Actuated g/C Ratio	0.74		0.05	0.82	0.12	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3609		79	3912	395	
v/s Ratio Prot	c0.25		c0.03	0.12	c0.04	
v/s Ratio Perm						
v/c Ratio	0.34		0.67	0.14	0.31	
Uniform Delay, d1	4.4		46.7	1.8	40.4	
Progression Factor	1.00		0.80	1.18	1.00	
Incremental Delay, d2	0.3		21.7	0.1	0.6	
Delay (s)	4.7		58.9	2.2	41.0	
Level of Service	A		E	A	D	
Approach Delay (s)	4.7			7.1	41.0	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	9.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1239	5	5	614	32
v/c Ratio	0.29	0.00	0.06	0.14	0.24
Control Delay	2.4	2.0	34.0	3.4	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	2.0	34.0	3.4	32.2
Queue Length 50th (ft)	43	0	2	70	10
Queue Length 95th (ft)	114	m2	m10	97	39
Internal Link Dist (ft)	450			494	263
Turn Bay Length (ft)			100		
Base Capacity (vph)	4308	1222	116	4303	213
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.29	0.00	0.04	0.14	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1140	5	5	565	15	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	
Frpb, ped/bikes	1.00	0.87	1.00	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.93	
Flt Protected	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (prot)	4940	1401	1289	4803	1643	
Flt Permitted	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (perm)	4940	1401	1289	4803	1643	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1239	5	5	614	16	16
RTOR Reduction (vph)	0	1	0	0	15	0
Lane Group Flow (vph)	1239	4	5	614	17	0
Confl. Peds. (#/hr)		55	55		6	3
Heavy Vehicles (%)	5%	0%	40%	8%	7%	0%
Turn Type	NA	Perm	Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases		2				
Actuated Green, G (s)	79.2	79.2	1.4	85.6	4.4	
Effective Green, g (s)	79.2	79.2	1.4	85.6	4.4	
Actuated g/C Ratio	0.79	0.79	0.01	0.86	0.04	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	1.0	1.0	2.0	1.0	2.0	
Lane Grp Cap (vph)	3912	1110	18	4111	72	
v/s Ratio Prot	c0.25		0.00	c0.13	c0.01	
v/s Ratio Perm		0.00				
v/c Ratio	0.32	0.00	0.28	0.15	0.23	
Uniform Delay, d1	2.9	2.2	48.8	1.2	46.2	
Progression Factor	0.93	0.91	0.75	2.72	1.00	
Incremental Delay, d2	0.2	0.0	3.0	0.1	0.6	
Delay (s)	2.9	2.0	39.7	3.3	46.8	
Level of Service	A	A	D	A	D	
Approach Delay (s)	2.9			3.6	46.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1229	554	144	208
v/c Ratio	0.42	0.24	0.43	0.58
Control Delay	6.5	7.8	34.9	38.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.5	7.8	34.9	38.0
Queue Length 50th (ft)	46	33	72	106
Queue Length 95th (ft)	168	48	132	183
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	2923	2338	336	359
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.24	0.43	0.58

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	985	60	15	465	40	45	65	25	60	75	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		4838			4672			1742			1728	
Flt Permitted		0.82			0.89			0.80			0.85	
Satd. Flow (perm)		3963			4160			1426			1491	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	117	1048	64	16	495	43	48	69	27	64	80	64
RTOR Reduction (vph)	0	6	0	0	10	0	0	8	0	0	16	0
Lane Group Flow (vph)	0	1223	0	0	544	0	0	136	0	0	192	0
Confl. Peds. (#/hr)	28		41	41		28	33		10	10		33
Heavy Vehicles (%)	0%	5%	2%	7%	9%	0%	5%	3%	0%	0%	0%	5%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		68.0			53.0			20.0			20.0	
Effective Green, g (s)		71.0			56.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.56			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		2936			2330			328			343	
v/s Ratio Prot		c0.06										
v/s Ratio Perm		0.24			0.13			0.10			c0.13	
v/c Ratio		0.42			0.23			0.41			0.56	
Uniform Delay, d1		6.0			11.1			32.8			34.0	
Progression Factor		1.10			0.71			1.00			1.00	
Incremental Delay, d2		0.4			0.2			3.8			6.4	
Delay (s)		7.0			8.1			36.6			40.5	
Level of Service		A			A			D			D	
Approach Delay (s)		7.0			8.1			36.6			40.5	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	1162	511	294	82
v/c Ratio	0.36	0.18	0.67	0.24
Control Delay	2.4	5.3	43.3	16.9
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.5	5.3	43.3	16.9
Queue Length 50th (ft)	31	35	170	16
Queue Length 95th (ft)	28	48	263	56
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	3206	2892	436	345
Starvation Cap Reductn	667	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.46	0.18	0.67	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1015	50	25	445	0	0	0	0	75	195	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.91			0.91						1.00	1.00
Frpb, ped/bikes		0.99			1.00						1.00	0.96
Flpb, ped/bikes		1.00			1.00						0.99	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			1.00						0.99	1.00
Satd. Flow (prot)		4873			4836						1815	1389
Flt Permitted		0.94			0.85						0.99	1.00
Satd. Flow (perm)		4573			4129						1815	1389
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	1103	54	27	484	0	0	0	0	82	212	82
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	1157	0	0	511	0	0	0	0	0	294	42
Confl. Peds. (#/hr)	34		40	40		34	15		20	20		15
Heavy Vehicles (%)	0%	5%	0%	4%	7%	0%	0%	0%	0%	3%	2%	12%
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)		68.0			68.0						21.0	21.0
Effective Green, g (s)		70.0			70.0						24.0	22.0
Actuated g/C Ratio		0.70			0.70						0.24	0.22
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		3201			2890						436	306
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.12						0.16	0.03
v/c Ratio		0.36			0.18						0.67	0.14
Uniform Delay, d1		6.0			5.1						34.5	31.4
Progression Factor		0.35			1.00						1.00	1.00
Incremental Delay, d2		0.3			0.1						8.1	0.9
Delay (s)		2.4			5.3						42.6	32.3
Level of Service		A			A						D	C
Approach Delay (s)		2.4			5.3			0.0			40.3	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	1215	473	333
v/c Ratio	0.45	0.15	0.64
Control Delay	9.3	10.1	36.5
Queue Delay	0.0	0.0	0.0
Total Delay	9.3	10.1	36.5
Queue Length 50th (ft)	126	56	179
Queue Length 95th (ft)	156	77	275
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	2714	3055	522
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.45	0.15	0.64

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	1045	0	0	395	45	45	215	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.91			0.91			1.00				
Frpb, ped/bikes		1.00			0.98			0.99				
Flpb, ped/bikes		0.99			1.00			1.00				
Frt		1.00			0.98			0.98				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		4899			4678			1775				
Flt Permitted		0.85			1.00			0.99				
Satd. Flow (perm)		4174			4678			1775				
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	91	1124	0	0	425	48	48	231	54	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1215	0	0	459	0	0	326	0	0	0	0
Confl. Peds. (#/hr)	41		44	44		41	21		47	47		21
Heavy Vehicles (%)	16%	4%	0%	0%	8%	2%	5%	2%	0%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		63.0			63.0			26.0				
Effective Green, g (s)		65.0			65.0			29.0				
Actuated g/C Ratio		0.65			0.65			0.29				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		2713			3041			515				
v/s Ratio Prot					0.10							
v/s Ratio Perm		c0.29						0.18				
v/c Ratio		0.45			0.15			0.63				
Uniform Delay, d1		8.6			6.8			30.9				
Progression Factor		1.00			1.60			1.00				
Incremental Delay, d2		0.5			0.1			5.8				
Delay (s)		9.2			11.0			36.7				
Level of Service		A			B			D				
Approach Delay (s)		9.2			11.0			36.7			0.0	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBT
Lane Group Flow (vph)	1166	489	123
v/c Ratio	0.37	0.17	0.30
Control Delay	1.1	3.0	30.7
Queue Delay	0.0	0.0	0.0
Total Delay	1.1	3.0	30.7
Queue Length 50th (ft)	11	19	58
Queue Length 95th (ft)	12	20	109
Internal Link Dist (ft)	570	260	350
Turn Bay Length (ft)			
Base Capacity (vph)	3150	2849	414
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.17	0.30

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1015	55	25	415	20	0	0	0	35	55	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.91			0.91						1.00	
Frpb, ped/bikes		0.98			0.99						0.99	
Flpb, ped/bikes		1.00			1.00						0.99	
Frt		0.99			0.99						0.97	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		4809			4703						1756	
Flt Permitted		0.92			0.85						0.99	
Satd. Flow (perm)		4428			4006						1756	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	1080	59	27	441	21	0	0	0	37	59	27
RTOR Reduction (vph)	0	6	0	0	5	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	1160	0	0	484	0	0	0	0	0	113	0
Confl. Peds. (#/hr)	42		72	72		42	29		26	26		29
Heavy Vehicles (%)	0%	5%	4%	10%	8%	6%	0%	0%	0%	0%	0%	4%
Parking (#/hr)						0						0
Turn Type	Perm	NA		Perm	NA					Perm	NA	
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		69.0			69.0						20.0	
Effective Green, g (s)		71.0			71.0						23.0	
Actuated g/C Ratio		0.71			0.71						0.23	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		3144			2844						404	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.12						0.06	
v/c Ratio		0.37			0.17						0.28	
Uniform Delay, d1		5.7			4.8						31.7	
Progression Factor		0.14			0.62						1.00	
Incremental Delay, d2		0.3			0.1						1.7	
Delay (s)		1.1			3.1						33.4	
Level of Service		A			A						C	
Approach Delay (s)		1.1			3.1			0.0			33.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1117	484	272	239
v/c Ratio	0.39	0.17	0.59	0.59
Control Delay	2.0	10.4	35.7	37.0
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.1	10.4	35.7	37.0
Queue Length 50th (ft)	16	45	142	127
Queue Length 95th (ft)	19	61	229	210
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	2842	2782	458	402
Starvation Cap Reductn	514	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.17	0.59	0.59

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	960	40	10	410	35	15	185	55	45	145	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			0.98			0.96			0.97	
Flpb, ped/bikes		0.99			1.00			0.99			0.98	
Frt		0.99			0.99			0.97			0.98	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		4838			4604			1633			1651	
Flt Permitted		0.89			0.91			0.98			0.85	
Satd. Flow (perm)		4303			4199			1599			1412	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	53	1021	43	11	436	37	16	197	59	48	154	37
RTOR Reduction (vph)	0	4	0	0	10	0	0	10	0	0	6	0
Lane Group Flow (vph)	0	1113	0	0	474	0	0	262	0	0	233	0
Confl. Peds. (#/hr)	131		220	220		131	123		121	121		123
Heavy Vehicles (%)	2%	4%	0%	11%	9%	3%	7%	8%	7%	5%	7%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		64.0			64.0			26.0			26.0	
Effective Green, g (s)		66.0			66.0			28.0			28.0	
Actuated g/C Ratio		0.66			0.66			0.28			0.28	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2840			2771			448			395	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.11			0.16			c0.16	
v/c Ratio		0.39			0.17			0.58			0.59	
Uniform Delay, d1		7.8			6.5			31.0			31.0	
Progression Factor		0.20			1.67			1.00			1.00	
Incremental Delay, d2		0.4			0.1			5.5			6.3	
Delay (s)		2.0			11.0			36.5			37.3	
Level of Service		A			B			D			D	
Approach Delay (s)		2.0			11.0			36.5			37.3	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1104	495	68	77
v/c Ratio	0.36	0.19	0.18	0.22
Control Delay	2.3	1.7	22.2	21.9
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.4	1.7	22.2	21.9
Queue Length 50th (ft)	25	11	21	23
Queue Length 95th (ft)	30	16	57	63
Internal Link Dist (ft)	264	235	411	349
Turn Bay Length (ft)				
Base Capacity (vph)	3034	2627	385	353
Starvation Cap Reductn	624	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.46	0.19	0.18	0.22

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	990	45	30	405	40	20	20	25	35	10	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.98	
Frt		0.99			0.99			0.95			0.95	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		4835			4567			1728			1651	
Flt Permitted		0.92			0.84			0.90			0.85	
Satd. Flow (perm)		4451			3849			1588			1431	
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)	26	1031	47	31	422	42	21	21	26	36	10	31
RTOR Reduction (vph)	0	5	0	0	11	0	0	20	0	0	24	0
Lane Group Flow (vph)	0	1099	0	0	484	0	0	48	0	0	53	0
Confl. Peds. (#/hr)	57		77	77		57	17		24	24		17
Heavy Vehicles (%)	0%	5%	0%	4%	10%	3%	0%	0%	0%	3%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		66.0			66.0			23.0			23.0	
Effective Green, g (s)		68.0			68.0			23.0			23.0	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		3027			2617			365			329	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.13			0.03			c0.04	
v/c Ratio		0.36			0.18			0.13			0.16	
Uniform Delay, d1		6.8			5.9			30.6			30.8	
Progression Factor		0.29			0.28			1.00			1.00	
Incremental Delay, d2		0.3			0.2			0.7			1.1	
Delay (s)		2.3			1.8			31.3			31.8	
Level of Service		A			A			C			C	
Approach Delay (s)		2.3			1.8			31.3			31.8	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1105	453	100	122
v/c Ratio	0.35	0.17	0.31	0.32
Control Delay	2.7	5.7	20.9	32.9
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.8	5.7	20.9	32.9
Queue Length 50th (ft)	22	35	26	61
Queue Length 95th (ft)	28	53	73	113
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	3121	2711	320	382
Starvation Cap Reductn	800	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.17	0.31	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1005	45	15	415	0	45	0	50	30	70	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			0.98			1.00	
Frt		0.99			1.00			0.93			0.98	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4867			4794			1646			1807	
Flt Permitted		1.00			0.88			0.79			0.89	
Satd. Flow (perm)		4867			4235			1330			1636	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1058	47	16	437	0	47	0	53	32	74	16
RTOR Reduction (vph)	0	5	0	0	0	0	0	40	0	0	5	0
Lane Group Flow (vph)	0	1100	0	0	453	0	0	60	0	0	117	0
Confl. Peds. (#/hr)	62		96	96		62	33		14	14		33
Heavy Vehicles (%)	0%	4%	5%	0%	8%	0%	2%	0%	0%	0%	1%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		3115			2710			279			376	
v/s Ratio Prot		c0.23										
v/s Ratio Perm					0.11			0.04			c0.07	
v/c Ratio		0.35			0.17			0.21			0.31	
Uniform Delay, d1		8.4			7.3			32.7			31.9	
Progression Factor		0.29			0.77			1.00			1.00	
Incremental Delay, d2		0.3			0.1			1.7			2.1	
Delay (s)		2.7			5.7			34.4			34.1	
Level of Service		A			A			C			C	
Approach Delay (s)		2.7			5.7			34.4			34.1	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1141	490	63	206
v/c Ratio	0.40	0.19	0.12	0.39
Control Delay	7.1	11.2	17.0	29.3
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	7.3	11.2	17.0	29.3
Queue Length 50th (ft)	80	61	17	101
Queue Length 95th (ft)	90	87	47	166
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	2823	2599	533	523
Starvation Cap Reductn	818	0	0	0
Spillback Cap Reductn	16	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.19	0.12	0.39

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1035	25	15	410	40	5	30	25	50	130	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.97			0.98			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.99			0.94			0.99	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		4860			4603			1689			1812	
Flt Permitted		0.92			0.89			0.98			0.91	
Satd. Flow (perm)		4477			4110			1660			1677	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	1089	26	16	432	42	5	32	26	53	137	16
RTOR Reduction (vph)	0	2	0	0	11	0	0	18	0	0	3	0
Lane Group Flow (vph)	0	1139	0	0	479	0	0	45	0	0	203	0
Confl. Peds. (#/hr)	70		110	110		70	23		21	21		23
Heavy Vehicles (%)	0%	5%	0%	0%	9%	0%	0%	4%	4%	0%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		61.0			61.0			28.0			28.0	
Effective Green, g (s)		63.0			63.0			31.0			31.0	
Actuated g/C Ratio		0.63			0.63			0.31			0.31	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2821			2589			515			520	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.12			0.03			c0.12	
v/c Ratio		0.40			0.18			0.09			0.39	
Uniform Delay, d1		9.2			7.7			24.5			27.1	
Progression Factor		0.73			1.51			1.00			1.00	
Incremental Delay, d2		0.4			0.2			0.3			2.2	
Delay (s)		7.1			11.9			24.8			29.3	
Level of Service		A			B			C			C	
Approach Delay (s)		7.1			11.9			24.8			29.3	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1171	489	37	33
v/c Ratio	0.36	0.17	0.10	0.09
Control Delay	10.2	1.7	18.4	23.4
Queue Delay	0.8	0.0	0.0	0.0
Total Delay	11.0	1.7	18.4	23.4
Queue Length 50th (ft)	82	12	8	11
Queue Length 95th (ft)	99	16	34	36
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	3275	2886	376	383
Starvation Cap Reductn	1654	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.72	0.17	0.10	0.09

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1060	30	25	430	5	10	5	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.97			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.98	
Frt		1.00			1.00			0.92			0.95	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4927			4775			1644			1723	
Flt Permitted		0.93			0.85			0.94			0.93	
Satd. Flow (perm)		4608			4066			1565			1630	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	1128	32	27	457	5	11	5	21	11	11	11
RTOR Reduction (vph)	0	3	0	0	1	0	0	16	0	0	8	0
Lane Group Flow (vph)	0	1168	0	0	488	0	0	21	0	0	25	0
Confl. Peds. (#/hr)	79		67	67		79	30		32	32		30
Heavy Vehicles (%)	0%	4%	8%	4%	8%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			69.0			20.0			20.0	
Effective Green, g (s)		71.0			71.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.71			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		3272			2887			360			375	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.12			0.01			c0.02	
v/c Ratio		0.36			0.17			0.06			0.07	
Uniform Delay, d1		5.6			4.8			30.0			30.1	
Progression Factor		1.76			0.34			1.00			1.00	
Incremental Delay, d2		0.3			0.1			0.3			0.3	
Delay (s)		10.2			1.7			30.4			30.4	
Level of Service		B			A			C			C	
Approach Delay (s)		10.2			1.7			30.4			30.4	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1124	391	181	216
v/c Ratio	0.37	0.13	0.44	0.57
Control Delay	1.8	17.0	32.1	35.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.8	17.0	32.1	35.6
Queue Length 50th (ft)	15	59	89	109
Queue Length 95th (ft)	17	84	155	187
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	3039	2923	414	380
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.37	0.13	0.44	0.57

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1030	30	10	355	15	50	90	35	80	75	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.99			0.97			0.96	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4923			4781			1738			1692	
Flt Permitted		0.92			0.91			0.85			0.79	
Satd. Flow (perm)		4530			4355			1500			1357	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	31	1062	31	10	366	15	52	93	36	82	77	57
RTOR Reduction (vph)	0	3	0	0	4	0	0	9	0	0	13	0
Lane Group Flow (vph)	0	1121	0	0	387	0	0	172	0	0	203	0
Confl. Peds. (#/hr)	35		74	74		35	16		20	20		16
Heavy Vehicles (%)	0%	4%	4%	0%	7%	14%	6%	2%	3%	4%	3%	6%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		3035			2918			405			366	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.09			0.11			c0.15	
v/c Ratio		0.37			0.13			0.43			0.55	
Uniform Delay, d1		7.2			6.0			30.1			31.3	
Progression Factor		0.21			2.91			1.00			1.00	
Incremental Delay, d2		0.3			0.1			3.2			5.9	
Delay (s)		1.8			17.5			33.3			37.3	
Level of Service		A			B			C			D	
Approach Delay (s)		1.8			17.5			33.3			37.3	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	1168	403	308	462
v/c Ratio	0.46	0.15	0.66	0.50
Control Delay	3.0	3.2	39.3	31.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.0	3.2	39.3	31.5
Queue Length 50th (ft)	31	15	189	132
Queue Length 95th (ft)	39	21	294	185
Internal Link Dist (ft)	721	273		111
Turn Bay Length (ft)				
Base Capacity (vph)	2548	2708	465	927
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.46	0.15	0.66	0.50

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1095	50	30	365	0	0	0	0	605	135	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.91			0.91					0.91	0.91	
Frpb, ped/bikes		1.00			1.00					1.00	1.00	
Flpb, ped/bikes		1.00			1.00					0.99	1.00	
Frt		0.99			1.00					1.00	1.00	
Flt Protected		1.00			1.00					0.95	0.97	
Satd. Flow (prot)		4893			4795					1602	3188	
Flt Permitted		1.00			0.84					0.95	0.97	
Satd. Flow (perm)		4893			4052					1602	3188	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1117	51	31	372	0	0	0	0	617	138	15
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1163	0	0	403	0	0	0	0	308	460	0
Confl. Peds. (#/hr)	38		46	46		38	76		4	4		76
Heavy Vehicles (%)	0%	5%	2%	4%	8%	0%	0%	0%	0%	2%	7%	8%
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		51.0			63.0					27.0	27.0	
Effective Green, g (s)		52.0			65.0					29.0	29.0	
Actuated g/C Ratio		0.52			0.65					0.29	0.29	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		2544			2708					465	925	
v/s Ratio Prot		c0.24			c0.01							
v/s Ratio Perm					0.08					c0.19	0.14	
v/c Ratio		0.46			0.15					0.66	0.50	
Uniform Delay, d1		15.1			6.8					31.2	29.5	
Progression Factor		0.16			0.45					1.00	1.00	
Incremental Delay, d2		0.6			0.1					7.2	1.9	
Delay (s)		3.0			3.2					38.4	31.4	
Level of Service		A			A					D	C	
Approach Delay (s)		3.0			3.2			0.0			34.2	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	353	1437	721	326	295	168	410
v/c Ratio	0.99	0.54	0.30	0.85	0.32	0.26	0.71
Control Delay	71.4	11.2	14.2	62.2	15.8	5.3	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	11.2	14.2	62.2	15.8	5.3	44.2
Queue Length 50th (ft)	119	161	120	103	84	1	140
Queue Length 95th (ft)	#319	186	19	#180	125	80	196
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	355	2641	2418	382	909	646	574
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.54	0.30	0.85	0.32	0.26	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	335	1355	10	590	95	265	45	280	160	325	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	3.0		2.0		4.0		7.0	7.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		0.99		0.98		1.00	0.99	0.98	
Flpb, ped/bikes	0.99	1.00		1.00		1.00		1.00	1.00	1.00	
Frt	1.00	1.00		0.98		0.98		0.85	0.85	0.98	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1678	4981		5975		2836		2456	1460	2869	
Flt Permitted	0.30	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	532	4981		5975		2836		2456	1460	2869	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	353	1426	11	621	100	279	47	295	168	342	68
RTOR Reduction (vph)	0	1	0	29	0	14	0	0	106	0	0
Lane Group Flow (vph)	353	1436	0	692	0	312	0	295	62	410	0
Confl. Peds. (#/hr)	51		23		51		65		1		65
Heavy Vehicles (%)	7%	4%	0%	6%	6%	8%	2%	8%	9%	4%	5%
Parking (#/hr)						2				2	
Turn Type	pm+pt	NA		NA		NA		custom	custom	NA	
Protected Phases	5	2		6		3				4	
Permitted Phases	2							8	8		
Actuated Green, G (s)	50.0	50.0		38.0		13.0		37.0	37.0	20.0	
Effective Green, g (s)	50.0	53.0		40.0		13.0		37.0	37.0	20.0	
Actuated g/C Ratio	0.50	0.53		0.40		0.13		0.37	0.37	0.20	
Clearance Time (s)	6.0	6.0		4.0		4.0		7.0	7.0	7.0	
Lane Grp Cap (vph)	358	2640		2390		369		909	540	574	
v/s Ratio Prot	c0.08	0.29		0.12		c0.11				c0.14	
v/s Ratio Perm	c0.41							0.12	0.04		
v/c Ratio	0.99	0.54		0.29		0.85		0.32	0.12	0.71	
Uniform Delay, d1	27.0	15.5		20.4		42.5		22.6	20.7	37.3	
Progression Factor	0.82	0.67		0.73		1.00		0.65	1.23	0.98	
Incremental Delay, d2	41.8	0.7		0.3		20.6		0.9	0.4	7.3	
Delay (s)	63.9	11.1		15.1		63.1		15.6	25.9	43.7	
Level of Service	E	B		B		E		B	C	D	
Approach Delay (s)		21.5		15.1		63.1				43.7	
Approach LOS		C		B		E				D	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	101	47	49	1085	436
v/c Ratio	0.25	0.17	0.15	0.37	0.22
Control Delay	29.2	31.3	28.4	5.5	14.2
Queue Delay	0.0	0.0	0.0	0.3	0.0
Total Delay	29.2	31.3	28.4	5.8	14.2
Queue Length 50th (ft)	47	25	23	61	53
Queue Length 95th (ft)	92	57	55	m69	74
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	411	284	323	2917	1945
Starvation Cap Reductn	0	0	0	1051	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.17	0.15	0.58	0.22

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	50	15	75	10	5	45	865	110	25	350	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		0.99		1.00	0.99			0.99			0.99	
Flpb, ped/bikes		0.98		0.97	0.98			1.00			1.00	
Frt		0.98		1.00	0.98			0.98			0.99	
Flt Protected		0.98		0.95	0.97			1.00			1.00	
Satd. Flow (prot)		1767		1505	1562			4766			4687	
Flt Permitted		0.90		0.72	0.79			0.90			0.84	
Satd. Flow (perm)		1617		1135	1276			4311			3948	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	53	16	80	11	5	48	920	117	27	372	37
RTOR Reduction (vph)	0	7	0	0	4	0	0	14	0	0	11	0
Lane Group Flow (vph)	0	94	0	47	45	0	0	1071	0	0	425	0
Confl. Peds. (#/hr)	40		23	23		40	25		62	62		25
Heavy Vehicles (%)	4%	0%	0%	11%	0%	0%	0%	6%	6%	0%	9%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		25.0		25.0	25.0			65.0			48.0	
Effective Green, g (s)		25.0		25.0	25.0			68.0			49.0	
Actuated g/C Ratio		0.25		0.25	0.25			0.68			0.49	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)		404		284	319			2995			1935	
v/s Ratio Prot								c0.05				
v/s Ratio Perm		c0.06		0.04	0.04			c0.19			0.11	
v/c Ratio		0.23		0.17	0.14			0.36			0.22	
Uniform Delay, d1		29.9		29.3	29.2			6.8			14.6	
Progression Factor		1.00		1.00	1.00			0.71			1.00	
Incremental Delay, d2		1.4		1.3	0.9			0.2			0.3	
Delay (s)		31.2		30.6	30.1			5.0			14.8	
Level of Service		C		C	C			A			B	
Approach Delay (s)		31.2			30.3			5.0			14.8	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	32	1526	697	138	91
v/c Ratio	0.05	0.30	0.19	0.54	0.42
Control Delay	1.6	2.0	14.7	36.7	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	2.0	14.7	36.7	33.8
Queue Length 50th (ft)	2	29	85	62	40
Queue Length 95th (ft)	m5	65	148	116	83
Internal Link Dist (ft)		329	556	273	214
Turn Bay Length (ft)	250				
Base Capacity (vph)	623	5017	3748	448	390
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.05	0.30	0.19	0.31	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1415	20	30	610	15	50	30	50	40	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0			2.0			3.0			3.0	
Lane Util. Factor	1.00	0.86			0.86			1.00			1.00	
Frpb, ped/bikes	1.00	1.00			1.00			0.98			0.98	
Flpb, ped/bikes	0.98	1.00			1.00			0.99			0.98	
Frt	1.00	1.00			1.00			0.95			0.96	
Flt Protected	0.95	1.00			1.00			0.98			0.98	
Satd. Flow (prot)	1722	6317			6179			1704			1676	
Flt Permitted	0.35	1.00			0.83			0.84			0.76	
Satd. Flow (perm)	637	6317			5139			1467			1295	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	1505	21	32	649	16	53	32	53	43	21	27
RTOR Reduction (vph)	0	1	0	0	3	0	0	27	0	0	18	0
Lane Group Flow (vph)	32	1525	0	0	694	0	0	111	0	0	73	0
Confl. Peds. (#/hr)	40		50	50		40	40		41	41		40
Heavy Vehicles (%)	3%	3%	0%	0%	5%	0%	0%	0%	0%	3%	0%	5%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	75.4	75.4			67.2			12.6			12.6	
Effective Green, g (s)	79.4	79.4			71.2			15.6			15.6	
Actuated g/C Ratio	0.79	0.79			0.71			0.16			0.16	
Clearance Time (s)	4.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)	595	5016			3659			229			202	
v/s Ratio Prot	0.00	c0.24										
v/s Ratio Perm	0.04				0.14			c0.08			0.06	
v/c Ratio	0.05	0.30			0.19			0.48			0.36	
Uniform Delay, d1	2.2	2.8			4.8			38.5			37.8	
Progression Factor	0.57	0.60			2.76			1.00			1.00	
Incremental Delay, d2	0.0	0.1			0.0			1.6			1.1	
Delay (s)	1.3	1.8			13.2			40.1			38.9	
Level of Service	A	A			B			D			D	
Approach Delay (s)		1.8			13.2			40.1			38.9	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	68	1500	1036	411	479
v/c Ratio	0.18	0.38	0.37	0.73	0.42
Control Delay	6.4	5.6	12.6	37.4	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	5.6	12.6	37.4	26.5
Queue Length 50th (ft)	8	54	91	227	121
Queue Length 95th (ft)	22	81	130	312	153
Internal Link Dist (ft)		556	454		345
Turn Bay Length (ft)	250				
Base Capacity (vph)	375	3978	2775	668	1359
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.18	0.38	0.37	0.62	0.35

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1310	130	35	625	335	0	0	0	395	430	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0			3.0					3.0	3.0	
Lane Util. Factor	1.00	0.86			0.86					1.00	0.95	
Frpb, ped/bikes	1.00	1.00			0.98					1.00	1.00	
Flpb, ped/bikes	1.00	1.00			1.00					0.97	1.00	
Frt	1.00	0.99			0.95					1.00	0.99	
Flt Protected	0.95	1.00			1.00					0.95	1.00	
Satd. Flow (prot)	1803	6421			6077					1757	3564	
Flt Permitted	0.21	1.00			0.83					0.95	1.00	
Satd. Flow (perm)	396	6421			5064					1757	3564	
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)	68	1365	135	36	651	349	0	0	0	411	448	31
RTOR Reduction (vph)	0	11	0	0	93	0	0	0	0	0	5	0
Lane Group Flow (vph)	68	1489	0	0	943	0	0	0	0	411	474	0
Confl. Peds. (#/hr)	14		22	22		14	33		23	23		33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	59.8	59.8			50.2					29.2	29.2	
Effective Green, g (s)	61.8	61.8			52.2					32.2	32.2	
Actuated g/C Ratio	0.62	0.62			0.52					0.32	0.32	
Clearance Time (s)	4.0	5.0			5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0			1.0					3.0	3.0	
Lane Grp Cap (vph)	352	3968			2643					566	1148	
v/s Ratio Prot	0.01	c0.23									0.13	
v/s Ratio Perm	0.10				0.19					c0.23		
v/c Ratio	0.19	0.38			0.36					0.73	0.41	
Uniform Delay, d1	8.0	9.5			14.0					30.0	26.5	
Progression Factor	0.62	0.54			1.00					1.00	1.00	
Incremental Delay, d2	0.1	0.3			0.0					4.6	0.2	
Delay (s)	5.1	5.4			14.1					34.6	26.7	
Level of Service	A	A			B					C	C	
Approach Delay (s)		5.4			14.1			0.0			30.4	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	1698	854	198	104
v/c Ratio	0.39	0.18	0.58	0.28
Control Delay	5.6	4.4	42.6	25.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.6	4.4	42.6	25.4
Queue Length 50th (ft)	98	39	116	41
Queue Length 95th (ft)	149	63	174	82
Internal Link Dist (ft)	223	206		315
Turn Bay Length (ft)				
Base Capacity (vph)	4384	4714	510	530
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.18	0.39	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1610	0	0	755	65	190	60	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		3.0	3.0				
Lane Util. Factor		0.86			0.86		1.00	1.00				
Frpb, ped/bikes		1.00			0.99		1.00	0.99				
Flpb, ped/bikes		1.00			1.00		0.97	1.00				
Frt		1.00			0.99		1.00	0.94				
Flt Protected		1.00			1.00		0.95	1.00				
Satd. Flow (prot)		6530			6406		1760	1759				
Flt Permitted		0.91			1.00		0.95	1.00				
Satd. Flow (perm)		5962			6406		1760	1759				
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)	21	1677	0	0	786	68	198	62	42	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	23	0	0	0	0
Lane Group Flow (vph)	0	1698	0	0	846	0	198	81	0	0	0	0
Confl. Peds. (#/hr)	20		18	18		20	20		20	20		20
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)		71.5			71.5		16.5	16.5				
Effective Green, g (s)		73.5			73.5		19.5	19.5				
Actuated g/C Ratio		0.74			0.74		0.20	0.20				
Clearance Time (s)		6.0			6.0		6.0	6.0				
Vehicle Extension (s)		1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)		4382			4708		343	343				
v/s Ratio Prot					0.13			0.05				
v/s Ratio Perm		c0.28					c0.11					
v/c Ratio		0.39			0.18		0.58	0.24				
Uniform Delay, d1		4.9			4.0		36.5	34.0				
Progression Factor		1.00			1.00		1.00	1.00				
Incremental Delay, d2		0.0			0.1		2.4	0.4				
Delay (s)		4.9			4.1		38.9	34.3				
Level of Service		A			A		D	C				
Approach Delay (s)		4.9			4.1			37.3			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1629	706	98	144
v/c Ratio	0.37	0.16	0.43	0.55
Control Delay	4.7	3.8	36.2	42.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.7	3.8	36.2	42.1
Queue Length 50th (ft)	83	29	48	78
Queue Length 95th (ft)	130	50	92	131
Internal Link Dist (ft)	284	248	445	227
Turn Bay Length (ft)				
Base Capacity (vph)	4360	4446	363	417
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.37	0.16	0.27	0.35

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1505	30	10	665	10	65	10	20	75	40	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		0.86			0.86			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.97			0.97	
Satd. Flow (prot)		6499			6512			1739			1767	
Flt Permitted		0.88			0.90			0.70			0.80	
Satd. Flow (perm)		5750			5862			1261			1455	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	46	1552	31	10	686	10	67	10	21	77	41	26
RTOR Reduction (vph)	0	1	0	0	1	0	0	12	0	0	9	0
Lane Group Flow (vph)	0	1628	0	0	705	0	0	86	0	0	135	0
Confl. Peds. (#/hr)	9		9	9		9	33		18	18		33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		73.8			73.8			14.2			14.2	
Effective Green, g (s)		75.8			75.8			17.2			17.2	
Actuated g/C Ratio		0.76			0.76			0.17			0.17	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)		4359			4443			217			250	
v/s Ratio Prot												
v/s Ratio Perm		c0.28			0.12			0.07			c0.09	
v/c Ratio		0.37			0.16			0.40			0.54	
Uniform Delay, d1		4.1			3.3			36.8			37.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			1.2			2.2	
Delay (s)		4.1			3.3			38.0			40.0	
Level of Service		A			A			D			D	
Approach Delay (s)		4.1			3.3			38.0			40.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	1758	811	27
v/c Ratio	0.30	0.14	0.14
Control Delay	1.6	1.3	28.5
Queue Delay	0.0	0.0	0.0
Total Delay	1.6	1.3	28.5
Queue Length 50th (ft)	53	20	8
Queue Length 95th (ft)	71	29	34
Internal Link Dist (ft)	184	190	477
Turn Bay Length (ft)			
Base Capacity (vph)	5846	5846	666
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.30	0.14	0.04

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑			↑↑↑↑	↑	
Volume (vph)	1670	0	0	770	10	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.92	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	6536			6536	1688	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	6536			6536	1688	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1758	0	0	811	11	16
RTOR Reduction (vph)	0	0	0	0	12	0
Lane Group Flow (vph)	1758	0	0	811	15	0
Confl. Peds. (#/hr)					10	11
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.4			83.4	4.6	
Effective Green, g (s)	85.4			85.4	7.6	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5582			5582	128	
v/s Ratio Prot	c0.27			0.12	c0.01	
v/s Ratio Perm						
v/c Ratio	0.31			0.15	0.12	
Uniform Delay, d1	1.5			1.2	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.1			0.1	0.4	
Delay (s)	1.6			1.3	43.5	
Level of Service	A			A	D	
Approach Delay (s)	1.6			1.3	43.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	1.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1729	890	146
v/c Ratio	0.37	0.18	0.50
Control Delay	3.9	2.3	40.5
Queue Delay	0.0	0.1	0.0
Total Delay	3.9	2.4	40.5
Queue Length 50th (ft)	78	14	79
Queue Length 95th (ft)	121	18	133
Internal Link Dist (ft)	171	174	446
Turn Bay Length (ft)			
Base Capacity (vph)	4655	4929	523
Starvation Cap Reductn	0	2563	0
Spillback Cap Reductn	39	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.38	0.28

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	20	1640	750	105	115	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	
Lane Util. Factor		0.86	0.86		1.00	
Frpb, ped/bikes		1.00	0.98		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.98		0.98	
Flt Protected		1.00	1.00		0.96	
Satd. Flow (prot)		6529	6302		1775	
Flt Permitted		0.91	1.00		0.96	
Satd. Flow (perm)		5962	6302		1775	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	21	1708	781	109	120	26
RTOR Reduction (vph)	0	0	10	0	9	0
Lane Group Flow (vph)	0	1729	880	0	137	0
Confl. Peds. (#/hr)	33			33	9	6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)		76.0	76.0		13.0	
Effective Green, g (s)		78.0	78.0		16.0	
Actuated g/C Ratio		0.78	0.78		0.16	
Clearance Time (s)		5.0	5.0		6.0	
Vehicle Extension (s)		1.0	1.0		3.0	
Lane Grp Cap (vph)		4650	4916		284	
v/s Ratio Prot			0.14		c0.08	
v/s Ratio Perm		c0.29				
v/c Ratio		0.37	0.18		0.48	
Uniform Delay, d1		3.4	2.8		38.2	
Progression Factor		1.00	0.76		1.00	
Incremental Delay, d2		0.0	0.1		1.3	
Delay (s)		3.4	2.2		39.5	
Level of Service		A	A		D	
Approach Delay (s)		3.4	2.2		39.5	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	4.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	1807	906	146
v/c Ratio	0.36	0.23	0.51
Control Delay	2.0	3.7	43.4
Queue Delay	0.1	0.0	0.0
Total Delay	2.0	3.7	43.4
Queue Length 50th (ft)	22	38	86
Queue Length 95th (ft)	24	62	139
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	5010	3889	468
Starvation Cap Reductn	1288	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.23	0.31

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1685	50	55	815	40	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.90	
Flt Protected	1.00			1.00	0.99	
Satd. Flow (prot)	6504			6515	1670	
Flt Permitted	1.00			0.77	0.99	
Satd. Flow (perm)	6504			5055	1670	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1755	52	57	849	42	104
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1805	0	0	906	146	0
Confl. Peds. (#/hr)		1	1		3	6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	75.0			75.0	14.0	
Effective Green, g (s)	77.0			77.0	17.0	
Actuated g/C Ratio	0.77			0.77	0.17	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5008			3892	284	
v/s Ratio Prot	c0.28				c0.09	
v/s Ratio Perm				0.18		
v/c Ratio	0.36			0.23	0.51	
Uniform Delay, d1	3.7			3.2	37.7	
Progression Factor	0.44			1.00	1.00	
Incremental Delay, d2	0.2			0.0	1.6	
Delay (s)	1.8			3.2	39.3	
Level of Service	A			A	D	
Approach Delay (s)	1.8			3.2	39.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	828	129	1538	81
v/c Ratio	0.25	0.87	0.38	0.36
Control Delay	4.5	107.7	7.2	26.2
Queue Delay	0.0	0.0	0.1	0.0
Total Delay	4.5	107.7	7.3	26.2
Queue Length 50th (ft)	51	86	281	23
Queue Length 95th (ft)	76	#198	346	65
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)				
Base Capacity (vph)	3364	148	4095	278
Starvation Cap Reductn	0	0	733	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.87	0.46	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	650	120	120	1430	35	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.98		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	4548		1641	4759	1723	
Flt Permitted	1.00		0.95	1.00	0.98	
Satd. Flow (perm)	4548		1641	4759	1723	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	699	129	129	1538	38	43
RTOR Reduction (vph)	23	0	0	0	39	0
Lane Group Flow (vph)	805	0	129	1538	42	0
Confl. Peds. (#/hr)		25	25			
Confl. Bikes (#/hr)	2			5		
Heavy Vehicles (%)	11%	7%	10%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	71.4		8.0	83.4	7.6	
Effective Green, g (s)	72.4		9.0	84.4	9.6	
Actuated g/C Ratio	0.72		0.09	0.84	0.10	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3293		148	4017	165	
v/s Ratio Prot	0.18		c0.08	c0.32	c0.02	
v/s Ratio Perm						
v/c Ratio	0.24		0.87	0.38	0.26	
Uniform Delay, d1	4.6		44.9	1.8	41.9	
Progression Factor	1.00		1.42	3.43	1.00	
Incremental Delay, d2	0.2		38.5	0.3	1.1	
Delay (s)	4.8		102.4	6.4	43.0	
Level of Service	A		F	A	D	
Approach Delay (s)	4.8			13.9	43.0	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	726	16	48	1656	22
v/c Ratio	0.19	0.02	0.36	0.37	0.17
Control Delay	3.0	2.2	55.4	1.8	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	2.2	55.4	1.8	32.6
Queue Length 50th (ft)	24	0	30	0	7
Queue Length 95th (ft)	58	5	m39	110	31
Internal Link Dist (ft)	450			494	263
Turn Bay Length (ft)			100		
Base Capacity (vph)	3885	934	155	4516	213
Starvation Cap Reductn	0	0	0	457	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.02	0.31	0.41	0.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	675	15	45	1540	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	
Frpb, ped/bikes	1.00	0.79	1.00	1.00	0.93	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.93	
Flt Protected	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (prot)	4631	1110	1671	4848	1609	
Flt Permitted	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (perm)	4631	1110	1671	4848	1609	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	726	16	48	1656	11	11
RTOR Reduction (vph)	0	4	0	0	11	0
Lane Group Flow (vph)	726	12	48	1656	11	0
Confl. Peds. (#/hr)		93	93		19	12
Confl. Bikes (#/hr)	2			3		
Heavy Vehicles (%)	12%	15%	8%	7%	0%	0%
Turn Type	NA	Perm	Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases		2				
Actuated Green, G (s)	76.9	76.9	5.3	87.2	2.8	
Effective Green, g (s)	76.9	76.9	5.3	87.2	2.8	
Actuated g/C Ratio	0.77	0.77	0.05	0.87	0.03	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	1.0	1.0	2.0	1.0	2.0	
Lane Grp Cap (vph)	3561	854	89	4227	45	
v/s Ratio Prot	0.16		0.03	c0.34	c0.01	
v/s Ratio Perm		0.01				
v/c Ratio	0.20	0.01	0.54	0.39	0.25	
Uniform Delay, d1	3.2	2.7	46.2	1.2	47.6	
Progression Factor	0.88	0.88	1.15	1.52	1.00	
Incremental Delay, d2	0.1	0.0	2.4	0.2	1.1	
Delay (s)	2.9	2.4	55.5	2.1	48.6	
Level of Service	A	A	E	A	D	
Approach Delay (s)	2.9			3.6	48.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	744	1679	212	147
v/c Ratio	0.32	0.65	0.74	0.38
Control Delay	6.4	27.9	50.9	20.8
Queue Delay	0.0	9.0	0.0	0.0
Total Delay	6.4	36.9	50.9	20.8
Queue Length 50th (ft)	73	360	119	41
Queue Length 95th (ft)	116	414	#231	98
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	2339	2576	286	392
Starvation Cap Reductn	0	876	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.32	0.99	0.74	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	565	40	50	1405	90	100	55	40	25	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			2.0			2.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			0.99			0.93	
Flpb, ped/bikes		1.00			1.00			0.96			1.00	
Frt		0.99			0.99			0.97			0.92	
Flt Protected		0.99			1.00			0.97			0.99	
Satd. Flow (prot)		4460			4707			1684			1577	
Flt Permitted		0.69			0.88			0.70			0.93	
Satd. Flow (perm)		3109			4147			1204			1474	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	614	43	54	1527	98	109	60	43	27	33	87
RTOR Reduction (vph)	0	7	0	0	7	0	0	9	0	0	52	0
Lane Group Flow (vph)	0	737	0	0	1672	0	0	203	0	0	95	0
Confl. Peds. (#/hr)	28		56	56		28	75		16	16		75
Confl. Bikes (#/hr)	1	4			5	1	1	8			3	
Heavy Vehicles (%)	4%	15%	0%	2%	8%	8%	1%	0%	9%	6%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			59.0			20.0			20.0	
Effective Green, g (s)		72.0			62.0			23.0			23.0	
Actuated g/C Ratio		0.72			0.62			0.23			0.23	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		2360			2571			277			339	
v/s Ratio Prot		c0.03										
v/s Ratio Perm		0.20			c0.40			c0.17			0.06	
v/c Ratio		0.31			0.65			0.73			0.28	
Uniform Delay, d1		5.1			12.1			35.6			31.7	
Progression Factor		1.33			2.20			1.00			1.00	
Incremental Delay, d2		0.3			1.0			15.7			2.0	
Delay (s)		7.0			27.7			51.3			33.7	
Level of Service		A			C			D			C	
Approach Delay (s)		7.0			27.7			51.3			33.7	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	649	1639	196	52
v/c Ratio	0.23	0.65	0.36	0.13
Control Delay	9.6	13.1	29.1	13.2
Queue Delay	0.0	0.1	0.0	0.3
Total Delay	9.6	13.2	29.1	13.5
Queue Length 50th (ft)	47	218	97	7
Queue Length 95th (ft)	90	266	159	36
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	2828	2530	547	412
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	190	0	149
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.70	0.36	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	590	40	95	1495	0	0	0	0	35	155	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.91			0.91						1.00	1.00
Frpb, ped/bikes		0.99			1.00						1.00	0.97
Flpb, ped/bikes		1.00			1.00						1.00	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			1.00						0.99	1.00
Satd. Flow (prot)		4475			4802						1764	1334
Flt Permitted		1.00			0.83						0.99	1.00
Satd. Flow (perm)		4475			4018						1764	1334
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	608	41	98	1541	0	0	0	0	36	160	52
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	26
Lane Group Flow (vph)	0	642	0	0	1639	0	0	0	0	0	196	26
Confl. Peds. (#/hr)	23		42	42		23	8		13	13		8
Confl. Bikes (#/hr)		2		1	5			1			12	
Heavy Vehicles (%)	0%	14%	5%	12%	7%	0%	0%	0%	0%	12%	5%	18%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		61.0			61.0						28.0	28.0
Effective Green, g (s)		63.0			63.0						31.0	29.0
Actuated g/C Ratio		0.63			0.63						0.31	0.29
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		2819			2531						547	387
v/s Ratio Prot		0.14										
v/s Ratio Perm					c0.41						0.11	0.02
v/c Ratio		0.23			0.65						0.36	0.07
Uniform Delay, d1		8.0			11.6						26.8	25.7
Progression Factor		1.22			1.00						1.00	1.00
Incremental Delay, d2		0.2			1.3						1.8	0.3
Delay (s)		9.9			12.9						28.6	26.1
Level of Service		A			B						C	C
Approach Delay (s)		9.9			12.9			0.0			28.1	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	652	1521	547
v/c Ratio	1.48dl	0.51	0.98
Control Delay	10.1	1.6	67.5
Queue Delay	0.0	0.0	0.0
Total Delay	10.1	1.6	67.5
Queue Length 50th (ft)	68	15	341
Queue Length 95th (ft)	92	18	#562
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	1778	2956	560
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.51	0.98

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	465	0	0	1410	35	180	305	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.91			0.91			1.00				
Frpb, ped/bikes		1.00			1.00			0.99				
Flpb, ped/bikes		1.00			1.00			0.99				
Frt		1.00			1.00			0.99				
Flt Protected		0.99			1.00			0.98				
Satd. Flow (prot)		4379			4766			1741				
Flt Permitted		0.65			1.00			0.98				
Satd. Flow (perm)		2868			4766			1741				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	163	489	0	0	1484	37	189	321	37	0	0	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	652	0	0	1518	0	0	544	0	0	0	0
Confl. Peds. (#/hr)	34		44	44		34	20		46	46		20
Confl. Bikes (#/hr)		3		1	4			11			1	
Heavy Vehicles (%)	32%	12%	0%	0%	8%	11%	2%	5%	15%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		60.0			60.0			29.0				
Effective Green, g (s)		62.0			62.0			32.0				
Actuated g/C Ratio		0.62			0.62			0.32				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		1778			2955			557				
v/s Ratio Prot					c0.32							
v/s Ratio Perm		0.23						0.31				
v/c Ratio		1.48dl			0.51			0.98				
Uniform Delay, d1		9.3			10.6			33.6				
Progression Factor		1.00			0.10			1.00				
Incremental Delay, d2		0.6			0.6			32.9				
Delay (s)		9.9			1.6			66.5				
Level of Service		A			A			E				
Approach Delay (s)		9.9			1.6			66.5			0.0	
Approach LOS		A			A			E			A	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	532	1543	10	106
v/c Ratio	0.19	0.52	no cap	0.23
Control Delay	4.8	0.8		20.2
Queue Delay	0.0	0.2		0.0
Total Delay	4.8	1.1	Error	20.2
Queue Length 50th (ft)	27	6	0	33
Queue Length 95th (ft)	m36	8	0	77
Internal Link Dist (ft)	570	260	380	350
Turn Bay Length (ft)				
Base Capacity (vph)	2777	2968	1	455
Starvation Cap Reductn	0	623	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.19	0.66	10.00	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	320	35	30	1170	20	0	0	0	15	35	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.91			0.91						1.00	
Frpb, ped/bikes		0.96			1.00						0.96	
Flpb, ped/bikes		1.00			0.99						0.99	
Frt		0.99			1.00						0.94	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		4380			4797						1631	
Flt Permitted		0.90			0.92						0.99	
Satd. Flow (perm)		3945			4422						1631	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	340	37	32	1245	21	0	0	0	16	37	48
RTOR Reduction (vph)	0	12	0	0	2	0	0	0	0	0	33	0
Lane Group Flow (vph)	0	376	0	0	1296	0	0	0	0	0	68	0
Confl. Peds. (#/hr)	30		82	82		30	43		26	26		43
Confl. Bikes (#/hr)	1	5			5			1			2	
Heavy Vehicles (%)	0%	12%	18%	7%	7%	0%	0%	0%	0%	0%	3%	5%
Parking (#/hr)						0						0
Turn Type	Perm			Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		66.0			66.0						23.0	
Effective Green, g (s)		68.0			68.0						26.0	
Actuated g/C Ratio		0.68			0.68						0.26	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		2683			3007						424	
v/s Ratio Prot												
v/s Ratio Perm		0.10			c0.29						0.04	
v/c Ratio		0.14			0.43						0.16	
Uniform Delay, d1		5.7			7.2						28.6	
Progression Factor		0.82			0.04						1.00	
Incremental Delay, d2		0.1			0.4						0.8	
Delay (s)		4.8			0.7						29.4	
Level of Service		A			A						C	
Approach Delay (s)		4.8			0.7			0.0			29.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	511	1543	334	178
v/c Ratio	0.24	0.66	0.50	0.27
Control Delay	24.0	26.9	23.9	18.8
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	24.0	26.9	23.9	18.8
Queue Length 50th (ft)	78	315	149	66
Queue Length 95th (ft)	105	371	232	116
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	2099	2341	670	652
Starvation Cap Reductn	0	66	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.68	0.50	0.27

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	450	10	10	1385	40	35	240	35	20	115	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.98			0.96	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		4614			4800			1653			1617	
Flt Permitted		0.87			0.94			0.95			0.94	
Satd. Flow (perm)		4029			4493			1584			1531	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	16	484	11	11	1489	43	38	258	38	22	124	32
RTOR Reduction (vph)	0	2	0	0	3	0	0	5	0	0	8	0
Lane Group Flow (vph)	0	509	0	0	1540	0	0	329	0	0	170	0
Confl. Peds. (#/hr)	85		147	147		85	123		92	92		123
Confl. Bikes (#/hr)		3		3	8			5		1	8	1
Heavy Vehicles (%)	0%	11%	30%	17%	7%	0%	0%	11%	5%	7%	10%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		50.0			50.0			40.0			40.0	
Effective Green, g (s)		52.0			52.0			42.0			42.0	
Actuated g/C Ratio		0.52			0.52			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2095			2336			665			643	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.34			c0.21			0.11	
v/c Ratio		0.24			0.66			0.50			0.26	
Uniform Delay, d1		13.2			17.5			21.2			18.9	
Progression Factor		1.81			1.45			1.00			1.00	
Incremental Delay, d2		0.3			1.3			2.6			1.0	
Delay (s)		24.1			26.7			23.9			19.9	
Level of Service		C			C			C			B	
Approach Delay (s)		24.1			26.7			23.9			19.9	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	25.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	532	1532	74	53
v/c Ratio	0.20	0.51	0.19	0.14
Control Delay	3.8	7.5	24.8	21.5
Queue Delay	0.0	0.7	0.0	0.0
Total Delay	3.8	8.2	24.8	21.5
Queue Length 50th (ft)	18	77	28	16
Queue Length 95th (ft)	21	191	66	48
Internal Link Dist (ft)	264	235	401	349
Turn Bay Length (ft)				
Base Capacity (vph)	2651	2978	385	375
Starvation Cap Reductn	0	973	0	0
Spillback Cap Reductn	0	612	3	3
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.76	0.19	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	440	50	15	1385	55	30	20	20	15	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.97			1.00			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			0.99			0.96			0.95	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4486			4761			1743			1610	
Flt Permitted		0.88			0.93			0.87			0.92	
Satd. Flow (perm)		3937			4440			1546			1497	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	463	53	16	1458	58	32	21	21	16	16	21
RTOR Reduction (vph)	0	14	0	0	4	0	0	14	0	0	16	0
Lane Group Flow (vph)	0	518	0	0	1528	0	0	60	0	0	37	0
Confl. Peds. (#/hr)	27		59	59		27	19		23	23		19
Confl. Bikes (#/hr)		7			9		1		1			
Heavy Vehicles (%)	0%	12%	3%	0%	8%	0%	0%	0%	0%	8%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			24.0			24.0	
Actuated g/C Ratio		0.67			0.67			0.24			0.24	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2638			2975			371			359	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.34			c0.04			0.02	
v/c Ratio		0.20			0.51			0.16			0.10	
Uniform Delay, d1		6.3			8.3			30.0			29.6	
Progression Factor		0.63			0.84			1.00			1.00	
Incremental Delay, d2		0.2			0.5			0.9			0.6	
Delay (s)		4.1			7.5			31.0			30.2	
Level of Service		A			A			C			C	
Approach Delay (s)		4.1			7.5			31.0			30.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	510	1549	81	75
v/c Ratio	0.17	0.56	0.27	0.18
Control Delay	8.8	21.8	27.0	27.2
Queue Delay	0.0	106.1	0.0	0.0
Total Delay	8.8	127.9	27.0	27.2
Queue Length 50th (ft)	83	326	31	32
Queue Length 95th (ft)	109	379	73	70
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	2925	2751	304	417
Starvation Cap Reductn	0	1493	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	1.23	0.27	0.18

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	445	30	50	1390	0	50	0	25	5	50	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			1.00			0.96			0.97	
Flt Protected		1.00			1.00			0.97			1.00	
Satd. Flow (prot)		4557			4816			1682			1799	
Flt Permitted		1.00			0.89			0.78			0.98	
Satd. Flow (perm)		4557			4299			1363			1771	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	478	32	54	1495	0	54	0	27	5	54	16
RTOR Reduction (vph)	0	8	0	0	0	0	0	18	0	0	10	0
Lane Group Flow (vph)	0	502	0	0	1549	0	0	63	0	0	65	0
Confl. Peds. (#/hr)	41		62	62		41	16		8	8		16
Confl. Bikes (#/hr)		2			7							
Heavy Vehicles (%)	0%	11%	8%	8%	7%	0%	0%	0%	6%	20%	0%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		2916			2751			286			407	
v/s Ratio Prot		0.11										
v/s Ratio Perm					c0.36			c0.05			0.04	
v/c Ratio		0.17			0.56			0.22			0.16	
Uniform Delay, d1		7.3			10.1			32.7			30.8	
Progression Factor		1.24			2.06			1.00			1.00	
Incremental Delay, d2		0.1			0.6			1.8			0.8	
Delay (s)		9.1			21.5			34.5			31.6	
Level of Service		A			C			C			C	
Approach Delay (s)		9.1			21.5			34.5			31.6	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	495	1796	245	62
v/c Ratio	0.22	0.73	0.39	0.10
Control Delay	30.9	10.9	26.1	21.1
Queue Delay	0.0	87.5	0.1	0.0
Total Delay	30.9	98.5	26.3	21.1
Queue Length 50th (ft)	113	86	114	24
Queue Length 95th (ft)	149	195	181	53
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	2290	2471	635	604
Starvation Cap Reductn	0	3	0	0
Spillback Cap Reductn	0	963	55	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	1.19	0.42	0.10

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	445	10	60	1420	245	15	200	20	10	45	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.97			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.98			0.99			0.99	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		4634			4627			1830			1796	
Flt Permitted		0.84			0.90			0.98			0.95	
Satd. Flow (perm)		3878			4148			1807			1717	
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)	21	464	10	62	1479	255	16	208	21	10	47	5
RTOR Reduction (vph)	0	2	0	0	23	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	493	0	0	1773	0	0	242	0	0	59	0
Confl. Peds. (#/hr)	47		65	65		47	17		60	60		17
Confl. Bikes (#/hr)		10			11			3			5	1
Heavy Vehicles (%)	0%	11%	20%	0%	7%	0%	0%	0%	14%	7%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		57.0			57.0			32.0			32.0	
Effective Green, g (s)		59.0			59.0			35.0			35.0	
Actuated g/C Ratio		0.59			0.59			0.35			0.35	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2288			2447			632			601	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.43			c0.13			0.03	
v/c Ratio		0.22			0.72			0.38			0.10	
Uniform Delay, d1		9.6			14.7			24.4			21.9	
Progression Factor		3.20			0.65			1.00			1.00	
Incremental Delay, d2		0.2			1.6			1.8			0.3	
Delay (s)		31.0			11.1			26.1			22.2	
Level of Service		C			B			C			C	
Approach Delay (s)		31.0			11.1			26.1			22.2	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	500	1805	74	90
v/c Ratio	0.18	0.56	0.22	0.23
Control Delay	0.9	2.9	30.6	27.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	0.9	2.9	30.6	27.1
Queue Length 50th (ft)	6	48	35	37
Queue Length 95th (ft)	7	54	75	81
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	2844	3227	330	388
Starvation Cap Reductn	0	88	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.58	0.22	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	445	15	25	1665	25	35	25	10	10	50	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		1.00			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4570			4828			1706			1743	
Flt Permitted		0.86			0.93			0.84			0.97	
Satd. Flow (perm)		3945			4478			1472			1698	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	468	16	26	1753	26	37	26	11	11	53	26
RTOR Reduction (vph)	0	3	0	0	1	0	0	6	0	0	15	0
Lane Group Flow (vph)	0	497	0	0	1804	0	0	68	0	0	75	0
Confl. Peds. (#/hr)	39		54	54		39	17		27	27		17
Confl. Bikes (#/hr)		9			12	1		3		1	4	
Heavy Vehicles (%)	17%	12%	11%	0%	7%	0%	9%	0%	0%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		70.0			70.0			19.0			19.0	
Effective Green, g (s)		72.0			72.0			22.0			22.0	
Actuated g/C Ratio		0.72			0.72			0.22			0.22	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2840			3224			324			374	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.40			c0.05			0.04	
v/c Ratio		0.17			0.56			0.21			0.20	
Uniform Delay, d1		4.5			6.6			31.9			31.8	
Progression Factor		0.17			0.34			1.00			1.00	
Incremental Delay, d2		0.1			0.6			1.5			1.2	
Delay (s)		0.9			2.9			33.4			33.0	
Level of Service		A			A			C			C	
Approach Delay (s)		0.9			2.9			33.4			33.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	490	1611	278	63
v/c Ratio	0.17	0.53	0.76	0.15
Control Delay	1.2	6.9	47.7	19.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.2	6.9	47.7	19.3
Queue Length 50th (ft)	6	90	157	18
Queue Length 95th (ft)	8	101	#285	50
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	2883	3031	364	421
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.53	0.76	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	450	10	15	1515	0	175	45	45	20	15	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		1.00			1.00			0.98			0.94	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		4654			4846			1651			1664	
Flt Permitted		0.92			0.93			0.77			0.88	
Satd. Flow (perm)		4301			4524			1322			1488	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	474	11	16	1595	0	184	47	47	21	16	26
RTOR Reduction (vph)	0	2	0	0	0	0	0	7	0	0	19	0
Lane Group Flow (vph)	0	488	0	0	1611	0	0	271	0	0	44	0
Confl. Peds. (#/hr)	22		28	28		22	6		15	15		6
Confl. Bikes (#/hr)		10			12				1		7	1
Heavy Vehicles (%)	10%	11%	0%	0%	7%	0%	8%	12%	0%	7%	9%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2882			3031			357			402	
v/s Ratio Prot												
v/s Ratio Perm		0.11			c0.36			c0.20			0.03	
v/c Ratio		0.17			0.53			0.76			0.11	
Uniform Delay, d1		6.1			8.5			33.5			27.5	
Progression Factor		0.18			0.75			1.00			1.00	
Incremental Delay, d2		0.1			0.5			14.0			0.5	
Delay (s)		1.2			6.8			47.5			28.0	
Level of Service		A			A			D			C	
Approach Delay (s)		1.2			6.8			47.5			28.0	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	531	1675	56	183	327
v/c Ratio	0.26	0.67	no cap	0.44	0.38
Control Delay	22.5	2.5		30.5	25.9
Queue Delay	0.1	110.7		95.7	0.7
Total Delay	22.6	113.2	Error	126.3	26.7
Queue Length 50th (ft)	110	26	0	100	82
Queue Length 95th (ft)	136	m7	0	172	123
Internal Link Dist (ft)	721	273	253		111
Turn Bay Length (ft)					
Base Capacity (vph)	2034	2498	1	412	858
Starvation Cap Reductn	0	1150	0	0	0
Spillback Cap Reductn	441	349	0	256	265
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	1.24	56.00	1.17	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	340	40	110	1060	0	0	0	0	245	90	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.91			0.91					0.91	0.91	
Frpb, ped/bikes		0.99			1.00					1.00	0.98	
Flpb, ped/bikes		1.00			0.99					0.98	0.99	
Frt		0.98			1.00					1.00	0.98	
Flt Protected		1.00			1.00					0.95	0.98	
Satd. Flow (prot)		4580			4762					1543	2981	
Flt Permitted		1.00			0.85					0.95	0.98	
Satd. Flow (perm)		4580			4049					1543	2981	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	351	41	113	1093	0	0	0	0	253	93	31
RTOR Reduction (vph)	0	15	0	0	0	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	377	0	0	1206	0	0	0	0	126	240	0
Confl. Peds. (#/hr)	47		69	69		47	102		17	17		102
Confl. Bikes (#/hr)		9	1		7	2	1	2			6	3
Heavy Vehicles (%)	0%	11%	0%	6%	8%	0%	0%	0%	0%	4%	14%	4%
Turn Type				pm+pt						Perm		
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		43.0			59.0					31.0	31.0	
Effective Green, g (s)		44.0			61.0					33.0	33.0	
Actuated g/C Ratio		0.44			0.61					0.33	0.33	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		2015			2570					509	984	
v/s Ratio Prot		0.08			c0.07							
v/s Ratio Perm					c0.22					c0.08	0.08	
v/c Ratio		0.19			0.47					0.25	0.24	
Uniform Delay, d1		17.1			10.7					24.4	24.4	
Progression Factor		1.32			1.66					1.00	1.00	
Incremental Delay, d2		0.2			0.1					1.2	0.6	
Delay (s)		22.8			17.7					25.6	25.0	
Level of Service		C			B					C	C	
Approach Delay (s)		22.8			17.7			0.0			25.2	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	SBR	NEL
Lane Group Flow (vph)	214	656	2531	438	797	412
v/c Ratio	1.04	0.23	0.90	1.12	0.72	1.10
Control Delay	56.8	2.2	27.1	120.8	18.8	106.2
Queue Delay	0.0	1.3	21.6	0.0	42.8	0.0
Total Delay	56.8	3.5	48.8	120.8	61.5	106.2
Queue Length 50th (ft)	~98	0	271	~165	194	~150
Queue Length 95th (ft)	m56	m0	232	#267	253	m#196
Internal Link Dist (ft)		124	112	356		542
Turn Bay Length (ft)						
Base Capacity (vph)	205	2883	2799	392	1101	373
Starvation Cap Reductn	0	1950	0	0	2	0
Spillback Cap Reductn	0	0	370	0	363	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.70	1.04	1.12	1.08	1.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	205	605	25	2195	235	355	65	675	90	325	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0		7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.76		0.97	
Frpb, ped/bikes	1.00	1.00		1.00		0.99		1.00		0.99	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	
Frt	1.00	0.99		0.99		0.98		0.85		0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (prot)	1703	4720		6050		2903		3198		2667	
Flt Permitted	0.09	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (perm)	163	4720		6050		2903		3198		2667	
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
Adj. Flow (vph)	214	630	26	2286	245	370	68	703	94	339	73
RTOR Reduction (vph)	0	5	0	18	0	15	0	14	0	0	0
Lane Group Flow (vph)	214	651	0	2513	0	423	0	783	0	412	0
Confl. Peds. (#/hr)	51		4		26		29	4	1	26	29
Confl. Bikes (#/hr)			4					9	2		1
Heavy Vehicles (%)	6%	9%	13%	6%	6%	6%	5%	7%	11%	13%	10%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom		NA	
Protected Phases	5	2 5		2		3		3 4		4	
Permitted Phases	2										
Actuated Green, G (s)	52.0	56.0		44.0		13.0		31.0		14.0	
Effective Green, g (s)	52.0	59.0		46.0		13.0		31.0		14.0	
Actuated g/C Ratio	0.52	0.59		0.46		0.13		0.31		0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	208	2785		2783		377		991		373	
v/s Ratio Prot	c0.08	0.14		0.42		c0.15		0.24		c0.15	
v/s Ratio Perm	c0.45										
v/c Ratio	1.03	0.23		0.90		1.12		0.79		1.10	
Uniform Delay, d1	40.7	9.8		24.9		43.5		31.5		43.0	
Progression Factor	0.57	0.24		0.91		1.00		0.52		1.02	
Incremental Delay, d2	26.6	0.0		4.3		83.9		6.2		64.6	
Delay (s)	49.7	2.4		27.0		127.4		22.5		108.2	
Level of Service	D	A		C		F		C		F	
Approach Delay (s)		14.0		27.0		127.4				108.2	
Approach LOS		B		C		F				F	

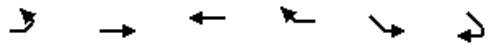
Intersection Summary			
HCM Average Control Delay	39.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR
Lane Group Flow (vph)	3340	6500	2640
v/c Ratio	1.21	3.63	1.19
Control Delay	122.0	1199.6	103.0
Queue Delay	5.8	0.0	15.0
Total Delay	127.8	1199.6	118.0
Queue Length 50th (ft)	~973	~4027	~1127
Queue Length 95th (ft)	106	#659	0
Internal Link Dist (ft)	273	124	
Turn Bay Length (ft)			
Base Capacity (vph)	2754	1789	2216
Starvation Cap Reductn	29	0	61
Spillback Cap Reductn	25	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.23	3.63	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑↑	↑↑	↱↱		
Volume (vph)	0	835	1625	660	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	12	12
Total Lost time (s)		3.0	3.0	3.0		
Lane Util. Factor		0.91	0.95	0.88		
Frt		1.00	1.00	0.85		
Flt Protected		1.00	1.00	1.00		
Satd. Flow (prot)		4668	3032	2388		
Flt Permitted		1.00	1.00	1.00		
Satd. Flow (perm)		4668	3032	2388		
Peak-hour factor, PHF	0.25	0.25	0.25	0.25	0.90	0.90
Adj. Flow (vph)	0	3340	6500	2640	0	0
RTOR Reduction (vph)	0	0	0	428	0	0
Lane Group Flow (vph)	0	3340	6500	2212	0	0
Heavy Vehicles (%)	0%	0%	0%	0%	2%	2%
Turn Type		NA	NA	custom		
Protected Phases		2 5	2 5	2 5 4		
Permitted Phases						
Actuated Green, G (s)		56.0	56.0	77.0		
Effective Green, g (s)		57.0	57.0	72.0		
Actuated g/C Ratio		0.57	0.57	0.72		
Clearance Time (s)						
Lane Grp Cap (vph)		2661	1728	1719		
v/s Ratio Prot		0.72	c2.14	c0.93		
v/s Ratio Perm						
v/c Ratio		1.26	3.76	1.29		
Uniform Delay, d1		21.5	21.5	14.0		
Progression Factor		1.01	0.80	1.87		
Incremental Delay, d2		118.1	1244.1	133.6		
Delay (s)		139.7	1261.3	159.8		
Level of Service		F	F	F		
Approach Delay (s)		139.7	943.1		0.0	
Approach LOS		F	F		A	

Intersection Summary			
HCM Average Control Delay	728.1	HCM Level of Service	F
HCM Volume to Capacity ratio	3.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	66	47	50	1204	774
v/c Ratio	0.08	0.09	0.07	0.72	0.42
Control Delay	13.0	18.2	16.4	18.5	20.5
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	13.0	18.2	16.4	18.6	20.5
Queue Length 50th (ft)	15	16	15	158	123
Queue Length 95th (ft)	46	47	45	m82	127
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	794	539	721	2514	2201
Starvation Cap Reductn	0	0	0	365	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.07	0.56	0.35

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	20	60	25	5	80	910	130	5	685	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		0.99		1.00	1.00			0.99			1.00	
Flpb, ped/bikes		0.99		0.99	1.00			1.00			1.00	
Frt		0.96		1.00	0.98			0.98			0.99	
Flt Protected		0.98		0.95	0.98			1.00			1.00	
Satd. Flow (prot)		1762		1510	1618			4705			4761	
Flt Permitted		0.92		0.71	0.92			0.80			0.93	
Satd. Flow (perm)		1651		1135	1514			3780			4433	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	22	22	22	65	27	5	86	978	140	5	737	32
RTOR Reduction (vph)	0	12	0	0	3	0	0	28	0	0	5	0
Lane Group Flow (vph)	0	54	0	47	47	0	0	1176	0	0	769	0
Confl. Peds. (#/hr)	16		11	11		16	24		32	32		24
Confl. Bikes (#/hr)				2				4	1		1	
Heavy Vehicles (%)	0%	0%	0%	12%	5%	0%	0%	7%	13%	50%	8%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		47.5		47.5	47.5			40.5			40.5	
Effective Green, g (s)		47.5		47.5	47.5			43.5			41.5	
Actuated g/C Ratio		0.48		0.48	0.48			0.44			0.42	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)		3.0		3.0	3.0			1.0			1.0	
Lane Grp Cap (vph)		784		539	719			1644			1840	
v/s Ratio Prot												
v/s Ratio Perm		0.03		c0.04	0.03			c0.31			0.17	
v/c Ratio		0.07		0.09	0.07			0.72			0.42	
Uniform Delay, d1		14.3		14.4	14.2			23.2			20.7	
Progression Factor		1.00		1.00	1.00			0.85			1.00	
Incremental Delay, d2		0.0		0.3	0.2			0.1			0.1	
Delay (s)		14.3		14.7	14.4			19.7			20.8	
Level of Service		B		B	B			B			C	
Approach Delay (s)		14.3			14.5			19.7			20.8	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	16	780	2549	151	21
v/c Ratio	0.06	0.17	0.63	0.58	0.08
Control Delay	5.0	5.1	4.7	41.3	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	5.1	4.7	41.3	27.2
Queue Length 50th (ft)	3	45	60	79	9
Queue Length 95th (ft)	m10	m69	m70	133	27
Internal Link Dist (ft)		329	556	273	214
Turn Bay Length (ft)	250				
Base Capacity (vph)	272	4592	4040	401	435
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.17	0.63	0.38	0.05

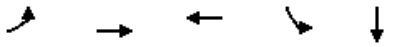
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	715	10	25	2335	10	90	15	35	10	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0			2.0			3.0			3.0	
Lane Util. Factor	1.00	0.86			0.86			1.00			1.00	
Frpb, ped/bikes	1.00	1.00			1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00			1.00			0.98			0.98	
Frt	1.00	1.00			1.00			0.97			0.97	
Flt Protected	0.95	1.00			1.00			0.97			0.97	
Satd. Flow (prot)	1805	5979			6098			1637			1653	
Flt Permitted	0.06	1.00			0.91			0.79			0.88	
Satd. Flow (perm)	109	5979			5582			1341			1491	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	16	769	11	27	2511	11	97	16	38	11	5	5
RTOR Reduction (vph)	0	1	0	0	1	0	0	14	0	0	3	0
Lane Group Flow (vph)	16	779	0	0	2548	0	0	137	0	0	18	0
Confl. Peds. (#/hr)	26		31	31		26	23		50	50		23
Confl. Bikes (#/hr)		4			6		2	3		1	1	
Heavy Vehicles (%)	0%	9%	0%	5%	7%	0%	5%	0%	7%	10%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	72.8	72.8			66.0			15.2			15.2	
Effective Green, g (s)	76.8	76.8			70.0			18.2			18.2	
Actuated g/C Ratio	0.77	0.77			0.70			0.18			0.18	
Clearance Time (s)	4.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)	199	4592			3907			244			271	
v/s Ratio Prot	0.01	c0.13										
v/s Ratio Perm	0.06				c0.46			c0.10			0.01	
v/c Ratio	0.08	0.17			0.65			0.56			0.07	
Uniform Delay, d1	4.7	3.1			8.3			37.3			33.9	
Progression Factor	1.38	1.43			0.52			1.00			1.00	
Incremental Delay, d2	0.1	0.1			0.0			2.9			0.1	
Delay (s)	6.6	4.5			4.3			40.2			34.0	
Level of Service	A	A			A			D			C	
Approach Delay (s)		4.5			4.3			40.2			34.0	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	6.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	71	764	3241	352	631
v/c Ratio	0.30	0.19	1.05	0.66	0.59
Control Delay	21.7	9.1	54.5	35.8	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.7	9.1	54.5	35.8	31.1
Queue Length 50th (ft)	18	50	~677	193	177
Queue Length 95th (ft)	55	70	#829	259	207
Internal Link Dist (ft)		556	454		345
Turn Bay Length (ft)	250				
Base Capacity (vph)	238	4050	3095	669	1352
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.30	0.19	1.05	0.53	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	565	130	55	2325	570	0	0	0	320	530	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0			3.0					3.0	3.0	
Lane Util. Factor	1.00	0.86			0.86					1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99					1.00	1.00	
Flpb, ped/bikes	1.00	1.00			1.00					0.98	1.00	
Frt	1.00	0.97			0.97					1.00	0.99	
Flt Protected	0.95	1.00			1.00					0.95	1.00	
Satd. Flow (prot)	1805	6314			6259					1761	3559	
Flt Permitted	0.07	1.00			0.89					0.95	1.00	
Satd. Flow (perm)	135	6314			5564					1761	3559	
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)	71	621	143	60	2555	626	0	0	0	352	582	49
RTOR Reduction (vph)	0	27	0	0	42	0	0	0	0	0	1	0
Lane Group Flow (vph)	71	737	0	0	3199	0	0	0	0	352	630	0
Confl. Peds. (#/hr)	18		13	13		18	19		21	21		19
Confl. Bikes (#/hr)					6							
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	61.7	61.7			52.1					27.3	27.3	
Effective Green, g (s)	63.7	63.7			54.1					30.3	30.3	
Actuated g/C Ratio	0.64	0.64			0.54					0.30	0.30	
Clearance Time (s)	4.0	5.0			5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0			1.0					3.0	3.0	
Lane Grp Cap (vph)	213	4022			3010					534	1078	
v/s Ratio Prot	c0.03	0.12									0.18	
v/s Ratio Perm	0.19				c0.57					c0.20		
v/c Ratio	0.33	0.18			1.06					0.66	0.58	
Uniform Delay, d1	19.9	7.5			23.0					30.4	29.5	
Progression Factor	2.26	1.22			1.00					1.00	1.00	
Incremental Delay, d2	0.3	0.1			36.1					2.9	0.8	
Delay (s)	45.2	9.2			59.1					33.3	30.3	
Level of Service	D	A			E					C	C	
Approach Delay (s)		12.3			59.1			0.0			31.4	
Approach LOS		B			E			A			C	

Intersection Summary			
HCM Average Control Delay	46.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	972	2550	528	400
v/c Ratio	0.27	0.62	1.06	0.74
Control Delay	8.0	11.4	93.7	40.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.0	11.4	93.7	40.6
Queue Length 50th (ft)	70	253	~373	221
Queue Length 95th (ft)	87	286	#575	#333
Internal Link Dist (ft)	223	206		315
Turn Bay Length (ft)				
Base Capacity (vph)	3656	4123	497	537
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.27	0.62	1.06	0.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	865	0	0	2130	165	475	270	90	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		3.0	3.0				
Lane Util. Factor		0.86			0.86		1.00	1.00				
Frpb, ped/bikes		1.00			0.99		1.00	0.99				
Flpb, ped/bikes		1.00			1.00		0.95	1.00				
Frt		1.00			0.99		1.00	0.96				
Flt Protected		1.00			1.00		0.95	1.00				
Satd. Flow (prot)		6532			6430		1715	1811				
Flt Permitted		0.87			1.00		0.95	1.00				
Satd. Flow (perm)		5712			6430		1715	1811				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	961	0	0	2367	183	528	300	100	0	0	0
RTOR Reduction (vph)	0	0	0	0	9	0	0	12	0	0	0	0
Lane Group Flow (vph)	0	972	0	0	2541	0	528	388	0	0	0	0
Confl. Peds. (#/hr)	14		13	13		14	40		22	22		40
Confl. Bikes (#/hr)		2			11							
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)		62.0			62.0		26.0	26.0				
Effective Green, g (s)		64.0			64.0		29.0	29.0				
Actuated g/C Ratio		0.64			0.64		0.29	0.29				
Clearance Time (s)		6.0			6.0		6.0	6.0				
Vehicle Extension (s)		1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)		3656			4115		497	525				
v/s Ratio Prot					c0.40			0.21				
v/s Ratio Perm		0.17					c0.31					
v/c Ratio		0.27			0.62		1.06	0.74				
Uniform Delay, d1		7.8			10.7		35.5	32.1				
Progression Factor		1.00			1.00		1.00	1.00				
Incremental Delay, d2		0.0			0.7		57.9	5.4				
Delay (s)		7.8			11.4		93.4	37.5				
Level of Service		A			B		F	D				
Approach Delay (s)		7.8			11.4			69.3			0.0	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1073	2483	67	67
v/c Ratio	0.22	0.49	0.38	0.32
Control Delay	2.3	3.5	40.2	40.6
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	2.3	3.6	40.2	40.6
Queue Length 50th (ft)	34	113	34	37
Queue Length 95th (ft)	54	165	73	75
Internal Link Dist (ft)	284	248	445	227
Turn Bay Length (ft)				
Base Capacity (vph)	4783	5059	383	464
Starvation Cap Reductn	0	1090	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.22	0.63	0.17	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	895	50	10	2190	10	40	10	10	15	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		0.86			0.86			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			1.00			0.98			0.94	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		6473			6528			1782			1743	
Flt Permitted		0.88			0.93			0.73			0.93	
Satd. Flow (perm)		5706			6042			1341			1638	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	11	1006	56	11	2461	11	45	11	11	17	22	28
RTOR Reduction (vph)	0	4	0	0	0	0	0	9	0	0	4	0
Lane Group Flow (vph)	0	1069	0	0	2483	0	0	58	0	0	63	0
Confl. Peds. (#/hr)	14		1	1		14	8		6	6		8
Confl. Bikes (#/hr)		3			6						6	
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		79.8			79.8			8.2			8.2	
Effective Green, g (s)		81.8			81.8			11.2			11.2	
Actuated g/C Ratio		0.82			0.82			0.11			0.11	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)		4668			4942			150			183	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.41			c0.04			0.04	
v/c Ratio		0.23			0.50			0.39			0.35	
Uniform Delay, d1		2.0			2.8			41.2			41.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			1.7			1.1	
Delay (s)		2.0			2.8			42.9			42.2	
Level of Service		A			A			D			D	
Approach Delay (s)		2.0			2.8			42.9			42.2	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	4.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	1102	2540	34
v/c Ratio	0.19	0.44	0.17
Control Delay	1.4	2.0	27.5
Queue Delay	0.0	0.1	0.0
Total Delay	1.4	2.2	27.5
Queue Length 50th (ft)	29	92	10
Queue Length 95th (ft)	40	118	38
Internal Link Dist (ft)	184	190	477
Turn Bay Length (ft)			
Base Capacity (vph)	5837	5837	677
Starvation Cap Reductn	0	1735	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.19	0.62	0.05

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑			↑↑↑↑	↑	
Volume (vph)	970	0	0	2235	15	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	6536			6536	1710	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	6536			6536	1710	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	1102	0	0	2540	17	17
RTOR Reduction (vph)	0	0	0	0	16	0
Lane Group Flow (vph)	1102	0	0	2540	18	0
Confl. Peds. (#/hr)					2	8
Confl. Bikes (#/hr)	4			4		
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.3			83.3	4.7	
Effective Green, g (s)	85.3			85.3	7.7	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5575			5575	132	
v/s Ratio Prot	0.17			c0.39	c0.01	
v/s Ratio Perm						
v/c Ratio	0.20			0.46	0.14	
Uniform Delay, d1	1.3			1.8	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.1			0.3	0.5	
Delay (s)	1.4			2.0	43.5	
Level of Service	A			A	D	
Approach Delay (s)	1.4			2.0	43.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	1053	2671	112
v/c Ratio	0.32	0.64	0.21
Control Delay	8.1	4.3	23.3
Queue Delay	0.0	0.4	0.0
Total Delay	8.1	4.6	23.3
Queue Length 50th (ft)	78	28	44
Queue Length 95th (ft)	96	31	88
Internal Link Dist (ft)	171	174	446
Turn Bay Length (ft)			
Base Capacity (vph)	3255	4155	521
Starvation Cap Reductn	0	771	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.32	0.79	0.21

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	945	2235	275	75	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	
Lane Util. Factor		0.86	0.86		1.00	
Frpb, ped/bikes		1.00	0.99		0.99	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.98		0.96	
Flt Protected		1.00	1.00		0.97	
Satd. Flow (prot)		6521	6369		1749	
Flt Permitted		0.77	1.00		0.97	
Satd. Flow (perm)		5006	6369		1749	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	48	1005	2378	293	80	32
RTOR Reduction (vph)	0	0	14	0	14	0
Lane Group Flow (vph)	0	1053	2657	0	98	0
Confl. Peds. (#/hr)	17			17	19	16
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)		63.0	63.0		26.0	
Effective Green, g (s)		65.0	65.0		29.0	
Actuated g/C Ratio		0.65	0.65		0.29	
Clearance Time (s)		5.0	5.0		6.0	
Vehicle Extension (s)		1.0	1.0		3.0	
Lane Grp Cap (vph)		3254	4140		507	
v/s Ratio Prot			c0.42		c0.06	
v/s Ratio Perm		0.21				
v/c Ratio		0.32	0.64		0.19	
Uniform Delay, d1		7.8	10.5		26.7	
Progression Factor		1.00	0.35		1.00	
Incremental Delay, d2		0.0	0.6		0.8	
Delay (s)		7.8	4.3		27.5	
Level of Service		A	A		C	
Approach Delay (s)		7.8	4.3		27.5	
Approach LOS		A	A		C	

Intersection Summary			
HCM Average Control Delay	5.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	1074	2750	96
v/c Ratio	0.22	0.70	0.24
Control Delay	2.7	9.0	33.4
Queue Delay	0.1	0.0	0.0
Total Delay	2.8	9.1	33.4
Queue Length 50th (ft)	31	276	50
Queue Length 95th (ft)	37	321	95
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	4992	3931	484
Starvation Cap Reductn	2060	0	0
Spillback Cap Reductn	0	49	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.71	0.20

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	975	35	120	2465	50	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.94	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	6497			6521	1727	
Flt Permitted	1.00			0.78	0.97	
Satd. Flow (perm)	6497			5119	1727	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1037	37	128	2622	53	43
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1072	0	0	2750	96	0
Confl. Peds. (#/hr)		1	1		1	1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	73.0			73.0	16.0	
Effective Green, g (s)	75.0			75.0	19.0	
Actuated g/C Ratio	0.75			0.75	0.19	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	4873			3839	328	
v/s Ratio Prot	0.16				c0.06	
v/s Ratio Perm				c0.54		
v/c Ratio	0.22			0.72	0.29	
Uniform Delay, d1	3.7			6.8	34.7	
Progression Factor	0.61			1.00	1.00	
Incremental Delay, d2	0.1			0.5	0.5	
Delay (s)	2.4			7.3	35.2	
Level of Service	A			A	D	
Approach Delay (s)	2.4			7.3	35.2	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	744	1679	212	147
v/c Ratio	0.38	0.81	0.74	0.38
Control Delay	7.1	15.4	50.9	20.8
Queue Delay	0.0	0.2	0.0	0.0
Total Delay	7.1	15.6	50.9	20.8
Queue Length 50th (ft)	69	324	119	41
Queue Length 95th (ft)	27	389	#231	98
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	1937	2079	286	392
Starvation Cap Reductn	0	43	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.82	0.74	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	565	40	50	1405	90	100	55	40	25	30	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			2.0			2.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			0.99			0.93	
Flpb, ped/bikes		1.00			1.00			0.96			1.00	
Frt		0.99			0.99			0.97			0.92	
Flt Protected		0.99			1.00			0.97			0.99	
Satd. Flow (prot)		4460			4707			1684			1577	
Flt Permitted		0.68			0.88			0.70			0.93	
Satd. Flow (perm)		3056			4143			1204			1474	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	614	43	54	1527	98	109	60	43	27	33	87
RTOR Reduction (vph)	0	7	0	0	7	0	0	9	0	0	52	0
Lane Group Flow (vph)	0	737	0	0	1672	0	0	203	0	0	95	0
Confl. Peds. (#/hr)	28		56	56		28	75		16	16		75
Confl. Bikes (#/hr)	1	4			5	1	1	8			3	
Heavy Vehicles (%)	4%	15%	0%	2%	8%	8%	1%	0%	9%	6%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		57.0			47.0			20.0			20.0	
Effective Green, g (s)		60.0			50.0			23.0			23.0	
Actuated g/C Ratio		0.60			0.50			0.23			0.23	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1960			2072			277			339	
v/s Ratio Prot		c0.03										
v/s Ratio Perm		0.19			c0.40			c0.17			0.06	
v/c Ratio		0.38			0.81			0.73			0.28	
Uniform Delay, d1		10.3			21.0			35.6			31.7	
Progression Factor		0.68			0.59			1.00			1.00	
Incremental Delay, d2		0.5			2.8			15.7			2.0	
Delay (s)		7.6			15.3			51.3			33.7	
Level of Service		A			B			D			C	
Approach Delay (s)		7.6			15.3			51.3			33.7	
Approach LOS		A			B			D			C	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	SBR	NEL
Lane Group Flow (vph)	214	656	2531	438	797	412
v/c Ratio	1.05	0.23	1.34	1.12	0.72	1.10
Control Delay	60.8	2.9	186.0	120.8	52.8	100.5
Queue Delay	3.5	2.5	73.7	0.0	43.4	0.0
Total Delay	64.3	5.4	259.7	120.8	96.2	100.5
Queue Length 50th (ft)	~96	0	~610	~165	231	~161
Queue Length 95th (ft)	m20	m0	#713	#267	286	m#207
Internal Link Dist (ft)		124	112	356		542
Turn Bay Length (ft)						
Base Capacity (vph)	203	2883	1893	392	1101	373
Starvation Cap Reductn	0	2060	0	0	7	0
Spillback Cap Reductn	2	0	207	0	364	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.80	1.50	1.12	1.08	1.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	205	605	25	2195	235	355	65	675	90	325	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0		7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.76		0.97	
Frpb, ped/bikes	1.00	1.00		1.00		0.99		1.00		0.99	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00		1.00	
Frt	1.00	0.99		0.99		0.98		0.85		0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (prot)	1703	4721		6050		2903		3198		2667	
Flt Permitted	0.14	1.00		1.00		1.00		1.00		0.96	
Satd. Flow (perm)	247	4721		6050		2903		3198		2667	
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
Adj. Flow (vph)	214	630	26	2286	245	370	68	703	94	339	73
RTOR Reduction (vph)	0	5	0	18	0	15	0	14	0	0	0
Lane Group Flow (vph)	214	651	0	2513	0	423	0	783	0	412	0
Confl. Peds. (#/hr)	51		4		26		29	4	1	26	29
Confl. Bikes (#/hr)			4					9	2		1
Heavy Vehicles (%)	6%	9%	13%	6%	6%	6%	5%	7%	11%	13%	10%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom		NA	
Protected Phases	5	1 2 5		2		3		3 4		4	
Permitted Phases	2										
Actuated Green, G (s)	37.0	56.0		29.0		13.0		31.0		14.0	
Effective Green, g (s)	37.0	59.0		31.0		13.0		31.0		14.0	
Actuated g/C Ratio	0.37	0.59		0.31		0.13		0.31		0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	208	2785		1876		377		991		373	
v/s Ratio Prot	c0.08	c0.14		c0.42		c0.15		0.24		c0.15	
v/s Ratio Perm	0.30										
v/c Ratio	1.03	0.23		1.34		1.12		0.79		1.10	
Uniform Delay, d1	42.8	9.8		34.5		43.5		31.5		43.0	
Progression Factor	0.54	0.34		1.05		1.00		1.71		0.84	
Incremental Delay, d2	26.6	0.0		155.7		83.9		6.2		64.6	
Delay (s)	49.5	3.3		192.1		127.4		60.1		100.6	
Level of Service	D	A		F		F		E		F	
Approach Delay (s)		14.7		192.1		127.4				100.6	
Approach LOS		B		F		F				F	

Intersection Summary			
HCM Average Control Delay	127.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	1074	2750	96
v/c Ratio	0.22	0.70	0.24
Control Delay	2.6	9.0	33.4
Queue Delay	0.1	0.0	0.0
Total Delay	2.7	9.1	33.4
Queue Length 50th (ft)	29	276	50
Queue Length 95th (ft)	35	321	95
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	4992	3931	484
Starvation Cap Reductn	2060	0	0
Spillback Cap Reductn	0	49	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.37	0.71	0.20

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	975	35	120	2465	50	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.94	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	6497			6521	1727	
Flt Permitted	1.00			0.78	0.97	
Satd. Flow (perm)	6497			5119	1727	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1037	37	128	2622	53	43
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	1072	0	0	2750	96	0
Confl. Peds. (#/hr)		1	1		1	1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	73.0			73.0	16.0	
Effective Green, g (s)	75.0			75.0	19.0	
Actuated g/C Ratio	0.75			0.75	0.19	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	4873			3839	328	
v/s Ratio Prot	0.16				c0.06	
v/s Ratio Perm				c0.54		
v/c Ratio	0.22			0.72	0.29	
Uniform Delay, d1	3.7			6.8	34.7	
Progression Factor	0.58			1.00	1.00	
Incremental Delay, d2	0.1			0.5	0.5	
Delay (s)	2.3			7.3	35.2	
Level of Service	A			A	D	
Approach Delay (s)	2.3			7.3	35.2	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	1441	85	851	223
v/c Ratio	0.40	0.90	0.22	0.45
Control Delay	5.7	118.4	5.1	23.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.7	118.4	5.1	23.7
Queue Length 50th (ft)	107	37	61	35
Queue Length 95th (ft)	150	#137	123	68
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)				
Base Capacity (vph)	3566	94	3904	913
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.40	0.90	0.22	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1260	95	80	800	110	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4877		1570	4759	3336	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4877		1570	4759	3336	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1340	101	85	851	117	106
RTOR Reduction (vph)	6	0	0	0	93	0
Lane Group Flow (vph)	1435	0	85	851	130	0
Confl. Peds. (#/hr)		22	22			
Heavy Vehicles (%)	4%	16%	15%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	72.0		5.0	81.0	10.0	
Effective Green, g (s)	73.0		6.0	82.0	12.0	
Actuated g/C Ratio	0.73		0.06	0.82	0.12	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3560		94	3902	400	
v/s Ratio Prot	c0.29		c0.05	0.18	c0.04	
v/s Ratio Perm						
v/c Ratio	0.40		0.90	0.22	0.32	
Uniform Delay, d1	5.2		46.7	2.0	40.3	
Progression Factor	1.00		1.01	2.32	1.00	
Incremental Delay, d2	0.3		62.6	0.1	0.6	
Delay (s)	5.5		109.9	4.7	40.9	
Level of Service	A		F	A	D	
Approach Delay (s)	5.5			14.3	40.9	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Group Flow (vph)	1473	5	5	940	32
v/c Ratio	0.34	0.00	0.06	0.22	0.24
Control Delay	2.6	2.0	32.2	3.6	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.6	2.0	32.2	3.6	32.2
Queue Length 50th (ft)	55	0	2	120	10
Queue Length 95th (ft)	142	m1	m6	m153	39
Internal Link Dist (ft)	450			494	263
Turn Bay Length (ft)			100		
Base Capacity (vph)	4308	1222	116	4303	213
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.00	0.04	0.22	0.15

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1355	5	5	865	15	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.91	1.00	1.00	0.91	1.00	
Frpb, ped/bikes	1.00	0.87	1.00	1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.93	
Flt Protected	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (prot)	4940	1401	1289	4803	1643	
Flt Permitted	1.00	1.00	0.95	1.00	0.98	
Satd. Flow (perm)	4940	1401	1289	4803	1643	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1473	5	5	940	16	16
RTOR Reduction (vph)	0	1	0	0	15	0
Lane Group Flow (vph)	1473	4	5	940	17	0
Confl. Peds. (#/hr)		55	55		6	3
Heavy Vehicles (%)	5%	0%	40%	8%	7%	0%
Turn Type	NA	Perm	Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases		2				
Actuated Green, G (s)	79.2	79.2	1.4	85.6	4.4	
Effective Green, g (s)	79.2	79.2	1.4	85.6	4.4	
Actuated g/C Ratio	0.79	0.79	0.01	0.86	0.04	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	1.0	1.0	2.0	1.0	2.0	
Lane Grp Cap (vph)	3912	1110	18	4111	72	
v/s Ratio Prot	c0.30		0.00	c0.20	c0.01	
v/s Ratio Perm		0.00				
v/c Ratio	0.38	0.00	0.28	0.23	0.23	
Uniform Delay, d1	3.1	2.2	48.8	1.3	46.2	
Progression Factor	0.93	0.93	0.71	2.66	1.00	
Incremental Delay, d2	0.3	0.0	2.8	0.1	0.6	
Delay (s)	3.1	2.0	37.4	3.5	46.8	
Level of Service	A	A	D	A	D	
Approach Delay (s)	3.1			3.7	46.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1457	883	132	308
v/c Ratio	0.56	0.38	0.40	0.89
Control Delay	8.1	8.1	34.7	62.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.1	8.1	34.7	62.1
Queue Length 50th (ft)	58	52	67	177
Queue Length 95th (ft)	197	67	124	#335
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	2596	2300	329	348
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	0.38	0.40	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	1130	65	20	735	75	35	70	20	90	100	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			0.99			0.98			0.95	
Flt Protected		0.99			1.00			0.99			0.98	
Satd. Flow (prot)		4853			4661			1762			1712	
Flt Permitted		0.70			0.88			0.78			0.82	
Satd. Flow (perm)		3406			4089			1398			1427	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	186	1202	69	21	782	80	37	74	21	96	106	106
RTOR Reduction (vph)	0	5	0	0	12	0	0	7	0	0	19	0
Lane Group Flow (vph)	0	1452	0	0	871	0	0	125	0	0	289	0
Confl. Peds. (#/hr)	28		41	41		28	33		10	10		33
Heavy Vehicles (%)	0%	5%	2%	7%	9%	0%	5%	3%	0%	0%	0%	5%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		68.0			53.0			20.0			20.0	
Effective Green, g (s)		71.0			56.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.56			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		2621			2290			322			328	
v/s Ratio Prot		c0.08										
v/s Ratio Perm		0.32			0.21			0.09			c0.20	
v/c Ratio		0.55			0.38			0.39			0.88	
Uniform Delay, d1		6.9			12.3			32.6			37.2	
Progression Factor		1.20			0.64			1.00			1.00	
Incremental Delay, d2		0.8			0.5			3.5			26.9	
Delay (s)		9.2			8.3			36.1			64.1	
Level of Service		A			A			D			E	
Approach Delay (s)		9.2			8.3			36.1			64.1	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	1348	891	380	92
v/c Ratio	0.42	0.34	0.87	0.27
Control Delay	3.0	6.4	58.1	20.5
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	3.1	6.4	58.1	20.5
Queue Length 50th (ft)	46	71	233	24
Queue Length 95th (ft)	m33	91	#396	68
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	3197	2584	437	341
Starvation Cap Reductn	669	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.34	0.87	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1170	65	60	760	0	0	0	0	85	265	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.91			0.91						1.00	1.00
Frpb, ped/bikes		0.99			1.00						1.00	0.96
Flpb, ped/bikes		1.00			1.00						0.99	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			1.00						0.99	1.00
Satd. Flow (prot)		4865			4834						1821	1389
Flt Permitted		0.94			0.76						0.99	1.00
Satd. Flow (perm)		4561			3692						1821	1389
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	1272	71	65	826	0	0	0	0	92	288	92
RTOR Reduction (vph)	0	6	0	0	0	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	1342	0	0	891	0	0	0	0	0	380	57
Confl. Peds. (#/hr)	34		40	40		34	15		20	20		15
Heavy Vehicles (%)	0%	5%	0%	4%	7%	0%	0%	0%	0%	3%	2%	12%
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)		68.0			68.0						21.0	21.0
Effective Green, g (s)		70.0			70.0						24.0	22.0
Actuated g/C Ratio		0.70			0.70						0.24	0.22
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		3193			2584						437	306
v/s Ratio Prot												
v/s Ratio Perm		c0.29			0.24						0.21	0.04
v/c Ratio		0.42			0.34						0.87	0.19
Uniform Delay, d1		6.4			5.9						36.5	31.7
Progression Factor		0.42			1.00						1.00	1.00
Incremental Delay, d2		0.3			0.4						20.4	1.3
Delay (s)		3.0			6.3						56.9	33.1
Level of Service		A			A						E	C
Approach Delay (s)		3.0			6.3			0.0			52.2	
Approach LOS		A			A			A			D	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	1365	828	409
v/c Ratio	0.53	0.27	0.79
Control Delay	10.3	10.1	44.5
Queue Delay	0.0	0.0	0.0
Total Delay	10.3	10.1	44.5
Queue Length 50th (ft)	153	97	234
Queue Length 95th (ft)	189	118	#382
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	2580	3076	518
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.53	0.27	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	1185	0	0	720	50	75	240	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.91			0.91			1.00				
Frpb, ped/bikes		1.00			0.99			0.99				
Flpb, ped/bikes		1.00			1.00			0.99				
Frt		1.00			0.99			0.98				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		4920			4722			1761				
Flt Permitted		0.80			1.00			0.99				
Satd. Flow (perm)		3968			4722			1761				
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	91	1274	0	0	774	54	81	258	70	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	7	0	0	0	0
Lane Group Flow (vph)	0	1365	0	0	820	0	0	402	0	0	0	0
Confl. Peds. (#/hr)	41		44	44		41	21		47	47		21
Heavy Vehicles (%)	16%	4%	0%	0%	8%	2%	5%	2%	0%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		63.0			63.0			26.0				
Effective Green, g (s)		65.0			65.0			29.0				
Actuated g/C Ratio		0.65			0.65			0.29				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		2579			3069			511				
v/s Ratio Prot					0.17							
v/s Ratio Perm		c0.34						0.23				
v/c Ratio		0.53			0.27			0.79				
Uniform Delay, d1		9.3			7.4			32.7				
Progression Factor		1.00			1.36			1.00				
Incremental Delay, d2		0.8			0.2			11.6				
Delay (s)		10.1			10.3			44.2				
Level of Service		B			B			D				
Approach Delay (s)		10.1			10.3			44.2			0.0	
Approach LOS		B			B			D			A	

Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1329	750	5	133
v/c Ratio	0.42	0.22	no cap	0.32
Control Delay	1.3	3.4		18.2
Queue Delay	0.0	0.0		0.0
Total Delay	1.3	3.4	Error	18.2
Queue Length 50th (ft)	16	32	0	32
Queue Length 95th (ft)	16	m36	0	83
Internal Link Dist (ft)	570	260	380	350
Turn Bay Length (ft)				
Base Capacity (vph)	3135	3388	1	421
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.22	5.00	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1015	55	25	415	20	0	0	0	35	55	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.91			0.91						1.00	
Frpb, ped/bikes		0.98			0.99						0.99	
Flpb, ped/bikes		1.00			1.00						0.99	
Frt		0.99			0.99						0.97	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		4809			4703						1756	
Flt Permitted		0.92			0.85						0.99	
Satd. Flow (perm)		4428			4006						1756	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	1080	59	27	441	21	0	0	0	37	59	27
RTOR Reduction (vph)	0	6	0	0	5	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	1160	0	0	484	0	0	0	0	0	113	0
Confl. Peds. (#/hr)	42		72	72		42	29		26	26		29
Heavy Vehicles (%)	0%	5%	4%	10%	8%	6%	0%	0%	0%	0%	0%	4%
Parking (#/hr)						0						0
Turn Type	Perm			Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		69.0			69.0						20.0	
Effective Green, g (s)		71.0			71.0						23.0	
Actuated g/C Ratio		0.71			0.71						0.23	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		3144			2844						404	
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.12						0.06	
v/c Ratio		0.37			0.17						0.28	
Uniform Delay, d1		5.7			4.8						31.7	
Progression Factor		0.14			0.62						1.00	
Incremental Delay, d2		0.3			0.1						1.7	
Delay (s)		1.1			3.1						33.4	
Level of Service		A			A						C	
Approach Delay (s)		1.1			3.1			0.0			33.4	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	3.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1313	628	277	431
v/c Ratio	0.48	0.22	0.65	1.11
Control Delay	1.9	10.8	38.9	112.2
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.0	10.8	38.9	112.2
Queue Length 50th (ft)	15	62	150	~308
Queue Length 95th (ft)	20	79	241	#500
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	2736	2799	425	389
Starvation Cap Reductn	223	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.22	0.65	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	1120	45	10	545	35	25	190	45	65	235	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.98			0.98			0.97			0.94	
Flpb, ped/bikes		0.99			1.00			1.00			0.99	
Frt		0.99			0.99			0.98			0.96	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		4843			4641			1662			1601	
Flt Permitted		0.85			0.91			0.89			0.83	
Satd. Flow (perm)		4138			4231			1492			1342	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	74	1191	48	11	580	37	27	202	48	69	250	112
RTOR Reduction (vph)	0	4	0	0	7	0	0	7	0	0	13	0
Lane Group Flow (vph)	0	1309	0	0	621	0	0	270	0	0	418	0
Confl. Peds. (#/hr)	131		220	220		131	123		121	121		123
Heavy Vehicles (%)	2%	4%	0%	11%	9%	3%	7%	8%	7%	5%	7%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		64.0			64.0			26.0			26.0	
Effective Green, g (s)		66.0			66.0			28.0			28.0	
Actuated g/C Ratio		0.66			0.66			0.28			0.28	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		2731			2792			418			376	
v/s Ratio Prot												
v/s Ratio Perm		c0.32			0.15			0.18			c0.31	
v/c Ratio		0.48			0.22			0.65			1.11	
Uniform Delay, d1		8.5			6.8			31.6			36.0	
Progression Factor		0.16			1.61			1.00			1.00	
Incremental Delay, d2		0.6			0.2			7.5			80.2	
Delay (s)		1.9			11.1			39.1			116.2	
Level of Service		A			B			D			F	
Approach Delay (s)		1.9			11.1			39.1			116.2	
Approach LOS		A			B			D			F	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1281	620	73	82
v/c Ratio	0.43	0.24	0.19	0.23
Control Delay	2.1	1.1	22.9	21.1
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	2.1	1.1	22.9	21.1
Queue Length 50th (ft)	27	10	24	23
Queue Length 95th (ft)	m30	12	61	64
Internal Link Dist (ft)	264	235	411	349
Turn Bay Length (ft)				
Base Capacity (vph)	3007	2637	378	357
Starvation Cap Reductn	381	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.24	0.19	0.23

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1150	50	30	525	40	25	20	25	35	10	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			0.99			0.95			0.94	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		4841			4600			1731			1644	
Flt Permitted		0.91			0.84			0.88			0.85	
Satd. Flow (perm)		4417			3867			1558			1432	
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)	31	1198	52	31	547	42	26	21	26	36	10	36
RTOR Reduction (vph)	0	4	0	0	8	0	0	20	0	0	28	0
Lane Group Flow (vph)	0	1277	0	0	612	0	0	53	0	0	54	0
Confl. Peds. (#/hr)	57		77	77		57	17		24	24		17
Heavy Vehicles (%)	0%	5%	0%	4%	10%	3%	0%	0%	0%	3%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		66.0			66.0			23.0			23.0	
Effective Green, g (s)		68.0			68.0			23.0			23.0	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		3004			2630			358			329	
v/s Ratio Prot												
v/s Ratio Perm		c0.29			0.16			0.03			c0.04	
v/c Ratio		0.42			0.23			0.15			0.16	
Uniform Delay, d1		7.2			6.1			30.7			30.8	
Progression Factor		0.23			0.15			1.00			1.00	
Incremental Delay, d2		0.4			0.2			0.9			1.1	
Delay (s)		2.1			1.1			31.6			31.9	
Level of Service		A			A			C			C	
Approach Delay (s)		2.1			1.1			31.6			31.9	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1373	568	110	132
v/c Ratio	0.44	0.22	0.35	0.35
Control Delay	3.3	5.8	24.4	33.9
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	3.4	5.8	24.4	33.9
Queue Length 50th (ft)	32	51	35	67
Queue Length 95th (ft)	39	80	86	123
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	3134	2625	314	376
Starvation Cap Reductn	551	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.22	0.35	0.35

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1260	45	20	520	0	45	0	60	35	75	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		0.99			1.00			0.92			0.98	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4890			4800			1641			1809	
Flt Permitted		1.00			0.85			0.79			0.88	
Satd. Flow (perm)		4890			4102			1329			1615	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1326	47	21	547	0	47	0	63	37	79	16
RTOR Reduction (vph)	0	4	0	0	0	0	0	35	0	0	5	0
Lane Group Flow (vph)	0	1369	0	0	568	0	0	75	0	0	127	0
Confl. Peds. (#/hr)	62		96	96		62	33		14	14		33
Heavy Vehicles (%)	0%	4%	5%	0%	8%	0%	2%	0%	0%	0%	1%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		3130			2625			279			371	
v/s Ratio Prot		c0.28										
v/s Ratio Perm					0.14			0.06			c0.08	
v/c Ratio		0.44			0.22			0.27			0.34	
Uniform Delay, d1		9.0			7.5			33.1			32.2	
Progression Factor		0.32			0.74			1.00			1.00	
Incremental Delay, d2		0.4			0.2			2.4			2.5	
Delay (s)		3.3			5.7			35.4			34.7	
Level of Service		A			A			D			C	
Approach Delay (s)		3.3			5.7			35.4			34.7	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1426	769	190	410
v/c Ratio	0.49	0.40	0.38	0.93
Control Delay	7.8	14.0	24.5	63.0
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	8.0	14.0	24.5	63.0
Queue Length 50th (ft)	103	80	76	251
Queue Length 95th (ft)	113	120	138	#440
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	2890	1928	505	442
Starvation Cap Reductn	620	0	0	0
Spillback Cap Reductn	348	0	2	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.40	0.38	0.93

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1325	25	125	530	75	5	30	145	120	265	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.97			0.96			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.98			0.89			1.00	
Flt Protected		1.00			0.99			1.00			0.98	
Satd. Flow (prot)		4887			4604			1569			1831	
Flt Permitted		0.94			0.65			0.99			0.77	
Satd. Flow (perm)		4584			3037			1554			1423	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1395	26	132	558	79	5	32	153	126	279	5
RTOR Reduction (vph)	0	2	0	0	14	0	0	23	0	0	1	0
Lane Group Flow (vph)	0	1424	0	0	755	0	0	167	0	0	409	0
Confl. Peds. (#/hr)	70		110	110		70	23		21	21		23
Heavy Vehicles (%)	0%	5%	0%	0%	9%	0%	0%	4%	4%	0%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		61.0			61.0			28.0			28.0	
Effective Green, g (s)		63.0			63.0			31.0			31.0	
Actuated g/C Ratio		0.63			0.63			0.31			0.31	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2888			1913			482			441	
v/s Ratio Prot												
v/s Ratio Perm		c0.31			0.25			0.11			c0.29	
v/c Ratio		0.49			0.39			0.35			0.93	
Uniform Delay, d1		9.9			9.1			26.7			33.4	
Progression Factor		0.73			1.53			1.00			1.00	
Incremental Delay, d2		0.6			0.6			2.0			28.2	
Delay (s)		7.8			14.5			28.6			61.6	
Level of Service		A			B			C			E	
Approach Delay (s)		7.8			14.5			28.6			61.6	
Approach LOS		A			B			C			E	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1692	777	42	38
v/c Ratio	0.52	0.27	0.11	0.10
Control Delay	11.4	13.0	19.5	21.3
Queue Delay	1.5	0.0	0.0	0.0
Total Delay	13.0	13.0	19.5	21.3
Queue Length 50th (ft)	296	117	11	11
Queue Length 95th (ft)	m340	m147	38	38
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	3257	2851	371	384
Starvation Cap Reductn	1299	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.86	0.27	0.11	0.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1535	40	25	700	5	15	5	20	10	10	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.97			0.98	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.93			0.94	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4933			4789			1655			1700	
Flt Permitted		0.93			0.84			0.91			0.94	
Satd. Flow (perm)		4586			4017			1541			1617	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	1633	43	27	745	5	16	5	21	11	11	16
RTOR Reduction (vph)	0	3	0	0	1	0	0	16	0	0	12	0
Lane Group Flow (vph)	0	1689	0	0	776	0	0	26	0	0	26	0
Confl. Peds. (#/hr)	79		67	67		79	30		32	32		30
Heavy Vehicles (%)	0%	4%	8%	4%	8%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			69.0			20.0			20.0	
Effective Green, g (s)		71.0			71.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.71			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		3256			2852			354			372	
v/s Ratio Prot												
v/s Ratio Perm		c0.37			0.19			c0.02			0.02	
v/c Ratio		0.52			0.27			0.07			0.07	
Uniform Delay, d1		6.7			5.2			30.2			30.1	
Progression Factor		1.63			2.43			1.00			1.00	
Incremental Delay, d2		0.5			0.2			0.4			0.4	
Delay (s)		11.3			12.9			30.6			30.5	
Level of Service		B			B			C			C	
Approach Delay (s)		11.3			12.9			30.6			30.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1608	696	222	335
v/c Ratio	0.54	0.25	0.70	0.85
Control Delay	1.8	10.6	44.6	54.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.8	10.6	44.6	54.5
Queue Length 50th (ft)	16	71	121	192
Queue Length 95th (ft)	17	m110	#226	#349
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	2986	2783	317	392
Starvation Cap Reductn	36	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.25	0.70	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1460	65	20	640	15	85	90	40	90	140	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		4900			4812			1734			1698	
Flt Permitted		0.91			0.86			0.65			0.81	
Satd. Flow (perm)		4448			4150			1145			1398	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	36	1505	67	21	660	15	88	93	41	93	144	98
RTOR Reduction (vph)	0	5	0	0	2	0	0	8	0	0	15	0
Lane Group Flow (vph)	0	1603	0	0	694	0	0	214	0	0	320	0
Confl. Peds. (#/hr)	35		74	74		35	16		20	20		16
Heavy Vehicles (%)	0%	4%	4%	0%	7%	14%	6%	2%	3%	4%	3%	6%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2980			2781			309			377	
v/s Ratio Prot												
v/s Ratio Perm		c0.36			0.17			0.19			c0.23	
v/c Ratio		0.54			0.25			0.69			0.85	
Uniform Delay, d1		8.5			6.5			32.8			34.6	
Progression Factor		0.14			1.59			1.00			1.00	
Incremental Delay, d2		0.6			0.2			12.1			20.7	
Delay (s)		1.8			10.6			44.8			55.3	
Level of Service		A			B			D			E	
Approach Delay (s)		1.8			10.6			44.8			55.3	
Approach LOS		A			B			D			E	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	1623	699	15	398	618
v/c Ratio	0.64	0.27	no cap	1.09	1.04dl
Control Delay	5.1	0.2		108.0	44.3
Queue Delay	0.2	0.0		22.3	0.6
Total Delay	5.4	0.2	Error	130.3	44.9
Queue Length 50th (ft)	58	0	0	~315	201
Queue Length 95th (ft)	71	0	0	#517	#296
Internal Link Dist (ft)	721	273	253		111
Turn Bay Length (ft)					
Base Capacity (vph)	2545	2611	1	366	743
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	293	0	0	18	18
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.72	0.27	15.00	1.14	0.85

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1095	50	30	365	0	0	0	0	605	135	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.91			0.91					0.91	0.91	
Frpb, ped/bikes		1.00			1.00					1.00	1.00	
Flpb, ped/bikes		1.00			1.00					0.99	1.00	
Frt		0.99			1.00					1.00	1.00	
Flt Protected		1.00			1.00					0.95	0.97	
Satd. Flow (prot)		4893			4795					1602	3188	
Flt Permitted		1.00			0.84					0.95	0.97	
Satd. Flow (perm)		4893			4052					1602	3188	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1117	51	31	372	0	0	0	0	617	138	15
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1163	0	0	403	0	0	0	0	308	460	0
Confl. Peds. (#/hr)	38		46	46		38	76		4	4		76
Heavy Vehicles (%)	0%	5%	2%	4%	8%	0%	0%	0%	0%	2%	7%	8%
Turn Type				pm+pt						Perm		
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		51.0			63.0					27.0	27.0	
Effective Green, g (s)		52.0			65.0					29.0	29.0	
Actuated g/C Ratio		0.52			0.65					0.29	0.29	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		2544			2708					465	925	
v/s Ratio Prot		c0.24			c0.01							
v/s Ratio Perm					0.08					c0.19	0.14	
v/c Ratio		0.46			0.15					0.66	0.50	
Uniform Delay, d1		15.1			6.8					31.2	29.5	
Progression Factor		0.16			0.99					1.00	1.00	
Incremental Delay, d2		0.6			0.1					7.2	1.9	
Delay (s)		3.0			6.9					38.4	31.4	
Level of Service		A			A					D	C	
Approach Delay (s)		3.0			6.9			0.0			34.2	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	258	2226	1195	436	421	221	595
v/c Ratio	1.03	0.73	0.43	1.14	0.50	0.35	1.49
Control Delay	58.6	2.0	8.2	128.3	17.7	3.0	263.4
Queue Delay	0.0	1.4	0.0	0.0	0.0	0.3	0.0
Total Delay	58.6	3.5	8.2	128.3	17.7	3.3	263.4
Queue Length 50th (ft)	~83	0	30	~166	60	0	~274
Queue Length 95th (ft)	m#103	m0	66	#268	80	15	#385
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	250	3042	2771	383	835	638	398
Starvation Cap Reductn	0	569	0	0	0	114	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.90	0.43	1.14	0.50	0.42	1.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	245	2110	5	980	155	350	65	400	210	470	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		0.99		0.97		1.00	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00	1.00	1.00	
Frt	1.00	1.00		0.98		0.98		0.85	0.85	0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1685	4986		5987		2830		2456	1482	2846	
Flt Permitted	0.16	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	278	4986		5987		2830		2456	1482	2846	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	258	2221	5	1032	163	368	68	421	221	495	100
RTOR Reduction (vph)	0	0	0	15	0	15	0	0	140	0	0
Lane Group Flow (vph)	258	2226	0	1180	0	421	0	421	81	595	0
Confl. Peds. (#/hr)	41		25		41		67	25	1	41	67
Heavy Vehicles (%)	7%	4%	0%	6%	6%	8%	2%	8%	9%	4%	5%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	52.0	56.0		44.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	52.0	59.0		46.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.52	0.59		0.46		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	257	2942		2754		368		761	459	398	
v/s Ratio Prot	0.08	c0.45		0.20		c0.15		0.17	0.05	c0.21	
v/s Ratio Perm	c0.44										
v/c Ratio	1.00	0.76		0.43		1.14		0.55	0.18	1.49	
Uniform Delay, d1	29.0	15.2		18.2		43.5		28.7	25.2	43.0	
Progression Factor	0.45	0.11		0.43		1.00		0.58	0.34	0.78	
Incremental Delay, d2	30.8	0.5		0.5		92.3		2.8	0.8	235.0	
Delay (s)	43.9	2.3		8.3		135.8		19.6	9.4	268.7	
Level of Service	D	A		A		F		B	A	F	
Approach Delay (s)		6.6		8.3		135.8				268.7	
Approach LOS		A		A		F				F	

Intersection Summary			
HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR
Lane Group Flow (vph)	2622	761	500
v/c Ratio	0.97	0.43	0.25
Control Delay	21.9	3.8	0.3
Queue Delay	0.8	0.2	0.2
Total Delay	22.7	3.9	0.5
Queue Length 50th (ft)	493	33	0
Queue Length 95th (ft)	m#577	45	0
Internal Link Dist (ft)	273	124	
Turn Bay Length (ft)			
Base Capacity (vph)	2700	1754	1973
Starvation Cap Reductn	0	277	717
Spillback Cap Reductn	19	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.98	0.52	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑↑	↑↑	↱↱		
Volume (vph)	0	2360	685	450	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	10	10	12	12
Total Lost time (s)		3.0	3.0	3.0		
Lane Util. Factor		0.91	0.95	0.88		
Frt		1.00	1.00	0.85		
Flt Protected		1.00	1.00	1.00		
Satd. Flow (prot)		4577	2973	2341		
Flt Permitted		1.00	1.00	1.00		
Satd. Flow (perm)		4577	2973	2341		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	2622	761	500	0	0
RTOR Reduction (vph)	0	0	0	140	0	0
Lane Group Flow (vph)	0	2622	761	360	0	0
Turn Type		NA	NA	custom		
Protected Phases		2 5	2 5	2 5 4		
Permitted Phases				2 5		
Actuated Green, G (s)		56.0	56.0	77.0		
Effective Green, g (s)		57.0	57.0	72.0		
Actuated g/C Ratio		0.57	0.57	0.72		
Clearance Time (s)						
Lane Grp Cap (vph)		2609	1695	1686		
v/s Ratio Prot		c0.57	0.26	c0.15		
v/s Ratio Perm						
v/c Ratio		1.00	0.45	0.21		
Uniform Delay, d1		21.5	12.4	4.6		
Progression Factor		0.57	0.27	0.00		
Incremental Delay, d2		16.3	0.8	0.3		
Delay (s)		28.5	4.1	0.3		
Level of Service		C	A	A		
Approach Delay (s)		28.5	2.6		0.0	
Approach LOS		C	A		A	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	112	64	64	1298	580
v/c Ratio	0.27	0.23	0.21	0.45	0.30
Control Delay	29.2	32.6	30.3	3.8	15.3
Queue Delay	0.0	0.0	0.0	1.3	0.0
Total Delay	29.2	32.6	30.3	5.1	15.3
Queue Length 50th (ft)	52	34	31	54	75
Queue Length 95th (ft)	99	73	70	m38	101
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	414	276	301	2869	1944
Starvation Cap Reductn	0	0	0	1271	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.23	0.21	0.81	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	55	20	105	10	5	55	1035	130	25	485	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		0.99		1.00	0.99			0.99			1.00	
Flpb, ped/bikes		0.99		0.97	0.98			1.00			1.00	
Frt		0.97		1.00	0.99			0.98			0.99	
Flt Protected		0.99		0.95	0.96			1.00			1.00	
Satd. Flow (prot)		1766		1506	1550			4769			4706	
Flt Permitted		0.91		0.70	0.74			0.88			0.84	
Satd. Flow (perm)		1622		1104	1194			4226			3954	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	59	21	112	11	5	59	1101	138	27	516	37
RTOR Reduction (vph)	0	8	0	0	3	0	0	14	0	0	8	0
Lane Group Flow (vph)	0	104	0	64	61	0	0	1284	0	0	572	0
Confl. Peds. (#/hr)	40		23	23		40	25		62	62		25
Heavy Vehicles (%)	4%	0%	0%	11%	0%	0%	0%	6%	6%	0%	9%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		25.0		25.0	25.0			65.0			48.0	
Effective Green, g (s)		25.0		25.0	25.0			68.0			49.0	
Actuated g/C Ratio		0.25		0.25	0.25			0.68			0.49	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Lane Grp Cap (vph)		406		276	299			2950			1937	
v/s Ratio Prot								c0.06				
v/s Ratio Perm		c0.06		0.06	0.05			c0.24			0.14	
v/c Ratio		0.26		0.23	0.20			0.44			0.30	
Uniform Delay, d1		30.0		29.9	29.6			7.3			15.2	
Progression Factor		1.00		1.00	1.00			0.46			1.00	
Incremental Delay, d2		1.5		2.0	1.5			0.0			0.4	
Delay (s)		31.6		31.8	31.2			3.4			15.6	
Level of Service		C		C	C			A			B	
Approach Delay (s)		31.6			31.5			3.4			15.6	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

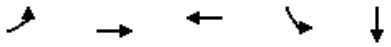
Lane Group	EBL	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	90	2325	1176	160	192
v/c Ratio	0.22	0.50	0.36	0.46	0.73
Control Delay	5.6	6.3	24.1	30.3	47.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	6.3	24.1	30.3	47.2
Queue Length 50th (ft)	14	130	212	71	101
Queue Length 95th (ft)	m20	m143	261	122	166
Internal Link Dist (ft)		329	556	273	214
Turn Bay Length (ft)	250				
Base Capacity (vph)	412	4637	3290	457	345
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.50	0.36	0.35	0.56

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	2170	15	25	1035	45	45	50	55	100	25	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0			2.0			3.0			3.0	
Lane Util. Factor	1.00	0.86			0.86			1.00			1.00	
Frpb, ped/bikes	1.00	1.00			0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00			1.00			0.99			0.98	
Frt	1.00	1.00			0.99			0.95			0.96	
Flt Protected	0.95	1.00			1.00			0.99			0.97	
Satd. Flow (prot)	1747	6331			6154			1726			1658	
Flt Permitted	0.19	1.00			0.83			0.86			0.67	
Satd. Flow (perm)	350	6331			5095			1502			1135	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	90	2309	16	27	1101	48	48	53	59	106	27	59
RTOR Reduction (vph)	0	1	0	0	6	0	0	23	0	0	17	0
Lane Group Flow (vph)	90	2324	0	0	1170	0	0	137	0	0	175	0
Confl. Peds. (#/hr)	40		50	50		40	40		41	41		40
Heavy Vehicles (%)	3%	3%	0%	0%	5%	0%	0%	0%	0%	3%	0%	5%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	69.2	69.2			59.6			18.8			18.8	
Effective Green, g (s)	73.2	73.2			63.6			21.8			21.8	
Actuated g/C Ratio	0.73	0.73			0.64			0.22			0.22	
Clearance Time (s)	4.0	6.0			6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)	390	4634			3240			327			247	
v/s Ratio Prot	0.02	c0.37										
v/s Ratio Perm	0.15				0.23			0.09			c0.15	
v/c Ratio	0.23	0.50			0.36			0.42			0.71	
Uniform Delay, d1	4.1	5.7			8.6			33.6			36.2	
Progression Factor	1.13	0.96			2.53			1.00			1.00	
Incremental Delay, d2	0.1	0.2			0.0			0.9			8.9	
Delay (s)	4.7	5.7			21.8			34.5			45.1	
Level of Service	A	A			C			C			D	
Approach Delay (s)		5.6			21.8			34.5			45.1	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	SBL	SBT
Lane Group Flow (vph)	94	2329	1610	318	848
v/c Ratio	0.37	0.61	0.68	0.53	0.70
Control Delay	12.8	9.4	19.8	29.7	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	9.4	19.8	29.7	31.4
Queue Length 50th (ft)	20	143	211	160	239
Queue Length 95th (ft)	m46	160	275	232	291
Internal Link Dist (ft)		556	454		345
Turn Bay Length (ft)	250				
Base Capacity (vph)	251	3817	2359	668	1364
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.61	0.68	0.48	0.62

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	1815	420	90	1070	385	0	0	0	305	780	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0			3.0					3.0	3.0	
Lane Util. Factor	1.00	0.86			0.86					1.00	0.95	
Frpb, ped/bikes	1.00	0.99			0.99					1.00	1.00	
Flpb, ped/bikes	1.00	1.00			1.00					0.97	1.00	
Frt	1.00	0.97			0.96					1.00	0.99	
Flt Protected	0.95	1.00			1.00					0.95	1.00	
Satd. Flow (prot)	1805	6297			6185					1757	3580	
Flt Permitted	0.09	1.00			0.72					0.95	1.00	
Satd. Flow (perm)	170	6297			4476					1757	3580	
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)	94	1891	438	94	1115	401	0	0	0	318	812	36
RTOR Reduction (vph)	0	30	0	0	63	0	0	0	0	0	3	0
Lane Group Flow (vph)	94	2299	0	0	1547	0	0	0	0	318	845	0
Confl. Peds. (#/hr)	14		22	22		14	33		23	23		33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	58.1	58.1			48.5					30.9	30.9	
Effective Green, g (s)	60.1	60.1			50.5					33.9	33.9	
Actuated g/C Ratio	0.60	0.60			0.50					0.34	0.34	
Clearance Time (s)	4.0	5.0			5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0			1.0					3.0	3.0	
Lane Grp Cap (vph)	226	3784			2260					596	1214	
v/s Ratio Prot	0.03	c0.37									c0.24	
v/s Ratio Perm	0.22				c0.35					0.18		
v/c Ratio	0.42	0.61			0.68					0.53	0.70	
Uniform Delay, d1	10.6	12.5			18.7					26.7	28.6	
Progression Factor	1.01	0.69			1.00					1.00	1.00	
Incremental Delay, d2	0.4	0.6			0.7					0.9	1.8	
Delay (s)	11.0	9.3			19.4					27.6	30.3	
Level of Service	B	A			B					C	C	
Approach Delay (s)		9.4			19.4			0.0			29.6	
Approach LOS		A			B			A			C	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	2161	1589	178	78
v/c Ratio	0.51	0.33	0.55	0.23
Control Delay	6.2	4.7	42.9	29.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	6.2	4.7	42.9	29.9
Queue Length 50th (ft)	137	80	104	37
Queue Length 95th (ft)	205	122	161	73
Internal Link Dist (ft)	223	206		315
Turn Bay Length (ft)				
Base Capacity (vph)	4214	4787	510	530
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.33	0.35	0.15

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1915	0	0	1315	115	160	50	20	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		3.0	3.0				
Lane Util. Factor		0.86			0.86		1.00	1.00				
Frpb, ped/bikes		1.00			0.99		1.00	0.99				
Flpb, ped/bikes		1.00			1.00		0.97	1.00				
Frt		1.00			0.99		1.00	0.96				
Flt Protected		1.00			1.00		0.95	1.00				
Satd. Flow (prot)		6530			6404		1760	1801				
Flt Permitted		0.86			1.00		0.95	1.00				
Satd. Flow (perm)		5645			6404		1760	1801				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	2128	0	0	1461	128	178	56	22	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	9	0	0	0	0
Lane Group Flow (vph)	0	2161	0	0	1582	0	178	69	0	0	0	0
Confl. Peds. (#/hr)	20		18	18		20	20		20	20		20
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)		72.6			72.6		15.4	15.4				
Effective Green, g (s)		74.6			74.6		18.4	18.4				
Actuated g/C Ratio		0.75			0.75		0.18	0.18				
Clearance Time (s)		6.0			6.0		6.0	6.0				
Vehicle Extension (s)		1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)		4211			4777		324	331				
v/s Ratio Prot					0.25			0.04				
v/s Ratio Perm		c0.38					c0.10					
v/c Ratio		0.51			0.33		0.55	0.21				
Uniform Delay, d1		5.2			4.3		37.0	34.6				
Progression Factor		1.00			1.00		1.00	1.00				
Incremental Delay, d2		0.0			0.2		1.9	0.3				
Delay (s)		5.3			4.5		38.9	34.9				
Level of Service		A			A		D	C				
Approach Delay (s)		5.3			4.5			37.7			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1995	1319	160	169
v/c Ratio	0.51	0.31	0.66	0.52
Control Delay	7.4	5.8	47.0	35.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.4	5.8	47.0	35.5
Queue Length 50th (ft)	142	76	89	85
Queue Length 95th (ft)	216	118	148	138
Internal Link Dist (ft)	284	248	445	227
Turn Bay Length (ft)				
Base Capacity (vph)	3874	4246	319	429
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.31	0.50	0.39

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	1845	35	10	1260	10	125	10	20	80	40	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			3.0			3.0	
Lane Util. Factor		0.86			0.86			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		6502			6523			1750			1746	
Flt Permitted		0.83			0.90			0.61			0.83	
Satd. Flow (perm)		5381			5890			1117			1481	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	57	1902	36	10	1299	10	129	10	21	82	41	46
RTOR Reduction (vph)	0	2	0	0	1	0	0	6	0	0	15	0
Lane Group Flow (vph)	0	1993	0	0	1318	0	0	154	0	0	154	0
Confl. Peds. (#/hr)	9		9	9		9	33		18	18		33
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		70.0			70.0			18.0			18.0	
Effective Green, g (s)		72.0			72.0			21.0			21.0	
Actuated g/C Ratio		0.72			0.72			0.21			0.21	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Vehicle Extension (s)		1.0			1.0			3.0			3.0	
Lane Grp Cap (vph)		3874			4241			235			311	
v/s Ratio Prot												
v/s Ratio Perm		c0.37			0.22			c0.14			0.10	
v/c Ratio		0.51			0.31			0.65			0.50	
Uniform Delay, d1		6.2			5.1			36.2			34.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.0			0.0			6.4			1.2	
Delay (s)		6.3			5.1			42.6			36.1	
Level of Service		A			A			D			D	
Approach Delay (s)		6.3			5.1			42.6			36.1	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	2089	1353	27
v/c Ratio	0.36	0.23	0.15
Control Delay	1.8	1.5	36.7
Queue Delay	0.0	0.0	0.0
Total Delay	1.8	1.5	36.7
Queue Length 50th (ft)	68	37	13
Queue Length 95th (ft)	93	53	39
Internal Link Dist (ft)	184	190	477
Turn Bay Length (ft)			
Base Capacity (vph)	5833	5833	661
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.36	0.23	0.04

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑			↑↑↑↑	↰	
Volume (vph)	1985	0	0	1285	10	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.92	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	6536			6536	1688	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	6536			6536	1688	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	2089	0	0	1353	11	16
RTOR Reduction (vph)	0	0	0	0	5	0
Lane Group Flow (vph)	2089	0	0	1353	22	0
Confl. Peds. (#/hr)					10	11
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.2			83.2	4.8	
Effective Green, g (s)	85.2			85.2	7.8	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5569			5569	132	
v/s Ratio Prot	c0.32			0.21	c0.01	
v/s Ratio Perm						
v/c Ratio	0.38			0.24	0.17	
Uniform Delay, d1	1.6			1.4	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.2			0.1	0.6	
Delay (s)	1.8			1.5	43.7	
Level of Service	A			A	D	
Approach Delay (s)	1.8			1.5	43.7	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	2083	1416	219
v/c Ratio	0.47	0.30	0.60
Control Delay	6.1	3.1	41.2
Queue Delay	0.2	0.1	0.0
Total Delay	6.2	3.2	41.2
Queue Length 50th (ft)	129	36	123
Queue Length 95th (ft)	195	48	185
Internal Link Dist (ft)	171	174	446
Turn Bay Length (ft)			
Base Capacity (vph)	4453	4725	523
Starvation Cap Reductn	1198	1591	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.64	0.45	0.42

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	10	1990	1255	105	180	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0		3.0	
Lane Util. Factor		0.86	0.86		1.00	
Frpb, ped/bikes		1.00	0.99		1.00	
Flpb, ped/bikes		1.00	1.00		1.00	
Frt		1.00	0.99		0.98	
Flt Protected		1.00	1.00		0.96	
Satd. Flow (prot)		6534	6389		1782	
Flt Permitted		0.92	1.00		0.96	
Satd. Flow (perm)		6023	6389		1782	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	10	2073	1307	109	188	31
RTOR Reduction (vph)	0	0	6	0	6	0
Lane Group Flow (vph)	0	2083	1410	0	213	0
Confl. Peds. (#/hr)	33			33	9	6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)		71.9	71.9		17.1	
Effective Green, g (s)		73.9	73.9		20.1	
Actuated g/C Ratio		0.74	0.74		0.20	
Clearance Time (s)		5.0	5.0		6.0	
Vehicle Extension (s)		1.0	1.0		3.0	
Lane Grp Cap (vph)		4451	4721		358	
v/s Ratio Prot			0.22		c0.12	
v/s Ratio Perm		c0.35				
v/c Ratio		0.47	0.30		0.59	
Uniform Delay, d1		5.2	4.4		36.2	
Progression Factor		1.00	0.64		1.00	
Incremental Delay, d2		0.0	0.2		2.6	
Delay (s)		5.2	2.9		38.9	
Level of Service		A	A		D	
Approach Delay (s)		5.2	2.9		38.9	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	2260	1500	130
v/c Ratio	0.45	1.36dl	0.49
Control Delay	1.4	4.3	43.5
Queue Delay	0.0	0.0	0.0
Total Delay	1.4	4.3	43.5
Queue Length 50th (ft)	34	72	76
Queue Length 95th (ft)	38	114	127
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	5071	3653	463
Starvation Cap Reductn	499	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.41	0.28

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	2120	50	105	1335	25	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.98	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.89	
Flt Protected	1.00			1.00	0.99	
Satd. Flow (prot)	6510			6512	1652	
Flt Permitted	1.00			0.72	0.99	
Satd. Flow (perm)	6510			4696	1652	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2208	52	109	1391	26	104
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	2258	0	0	1500	130	0
Confl. Peds. (#/hr)		1	1		3	6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	75.8			75.8	13.2	
Effective Green, g (s)	77.8			77.8	16.2	
Actuated g/C Ratio	0.78			0.78	0.16	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5065			3653	268	
v/s Ratio Prot	c0.35				c0.08	
v/s Ratio Perm				0.32		
v/c Ratio	0.45			1.36dl	0.49	
Uniform Delay, d1	3.8			3.6	38.1	
Progression Factor	0.28			1.00	1.00	
Incremental Delay, d2	0.3			0.0	1.4	
Delay (s)	1.3			3.6	39.5	
Level of Service	A			A	D	
Approach Delay (s)	1.3			3.6	39.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1457	883	132	308
v/c Ratio	0.68	0.49	0.40	0.89
Control Delay	14.1	16.4	34.7	62.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.1	16.4	34.7	62.1
Queue Length 50th (ft)	208	142	67	177
Queue Length 95th (ft)	242	202	124	#335
Internal Link Dist (ft)	494	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	2154	1803	329	348
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.68	0.49	0.40	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	1130	65	20	735	75	35	70	20	90	100	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			0.99			0.98			0.95	
Flt Protected		0.99			1.00			0.99			0.98	
Satd. Flow (prot)		4855			4661			1762			1712	
Flt Permitted		0.68			0.87			0.78			0.82	
Satd. Flow (perm)		3331			4076			1398			1427	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	186	1202	69	21	782	80	37	74	21	96	106	106
RTOR Reduction (vph)	0	5	0	0	12	0	0	7	0	0	19	0
Lane Group Flow (vph)	0	1452	0	0	871	0	0	125	0	0	289	0
Confl. Peds. (#/hr)	28		41	41		28	33		10	10		33
Heavy Vehicles (%)	0%	5%	2%	7%	9%	0%	5%	3%	0%	0%	0%	5%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		56.0			41.0			20.0			20.0	
Effective Green, g (s)		59.0			44.0			23.0			23.0	
Actuated g/C Ratio		0.59			0.44			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		2179			1793			322			328	
v/s Ratio Prot		c0.09										
v/s Ratio Perm		0.30			0.21			0.09			c0.20	
v/c Ratio		0.67			0.49			0.39			0.88	
Uniform Delay, d1		13.8			19.9			32.6			37.2	
Progression Factor		1.00			0.79			1.00			1.00	
Incremental Delay, d2		1.6			0.9			3.5			26.9	
Delay (s)		15.4			16.6			36.1			64.1	
Level of Service		B			B			D			E	
Approach Delay (s)		15.4			16.6			36.1			64.1	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	258	2226	1195	436	421	221	595
v/c Ratio	1.28	0.73	0.63	1.14	0.50	0.34	1.49
Control Delay	162.7	2.0	14.2	128.3	17.7	2.7	263.4
Queue Delay	0.0	1.4	0.0	0.0	0.0	0.3	0.0
Total Delay	162.7	3.4	14.2	128.3	17.7	3.0	263.4
Queue Length 50th (ft)	~161	0	29	~166	60	0	~274
Queue Length 95th (ft)	m#172	m0	68	#268	80	14	#385
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	201	3043	1885	383	835	650	398
Starvation Cap Reductn	0	569	0	0	0	119	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.28	0.90	0.63	1.14	0.50	0.42	1.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	245	2110	5	980	155	350	65	400	210	470	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	10	12	10	12	10	12
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		0.99		0.97		1.00	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00	1.00	1.00	
Frt	1.00	1.00		0.98		0.98		0.85	0.85	0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1686	4986		5987		2830		2456	1482	2846	
Flt Permitted	0.14	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	245	4986		5987		2830		2456	1482	2846	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	258	2221	5	1032	163	368	68	421	221	495	100
RTOR Reduction (vph)	0	0	0	28	0	15	0	0	152	0	0
Lane Group Flow (vph)	258	2226	0	1167	0	421	0	421	69	595	0
Confl. Peds. (#/hr)	41		25		41		67	25	1	41	67
Heavy Vehicles (%)	7%	4%	0%	6%	6%	8%	2%	8%	9%	4%	5%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	1 2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	37.0	56.0		29.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	37.0	59.0		31.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.37	0.59		0.31		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	206	2942		1856		368		761	459	398	
v/s Ratio Prot	0.10	c0.45		0.19		c0.15		0.17	0.05	c0.21	
v/s Ratio Perm	c0.36										
v/c Ratio	1.25	0.76		0.63		1.14		0.55	0.15	1.49	
Uniform Delay, d1	38.0	15.2		29.6		43.5		28.7	25.0	43.0	
Progression Factor	0.55	0.11		0.44		1.00		0.58	0.39	0.78	
Incremental Delay, d2	124.7	0.5		1.5		92.3		2.8	0.7	235.0	
Delay (s)	145.8	2.3		14.6		135.8		19.6	10.3	268.7	
Level of Service	F	A		B		F		B	B	F	
Approach Delay (s)		17.2		14.6		135.8				268.7	
Approach LOS		B		B		F				F	

Intersection Summary			
HCM Average Control Delay	54.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NEL
Lane Group Flow (vph)	2260	1500	130
v/c Ratio	0.45	1.36dl	0.49
Control Delay	1.4	4.3	43.5
Queue Delay	0.0	0.0	0.0
Total Delay	1.4	4.3	43.5
Queue Length 50th (ft)	34	72	76
Queue Length 95th (ft)	38	114	127
Internal Link Dist (ft)	174	1433	573
Turn Bay Length (ft)			
Base Capacity (vph)	5071	3653	463
Starvation Cap Reductn	499	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.41	0.28

Intersection Summary

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	2120	50	105	1335	25	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	0.86			0.86	1.00	
Frpb, ped/bikes	1.00			1.00	0.98	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.89	
Flt Protected	1.00			1.00	0.99	
Satd. Flow (prot)	6510			6512	1652	
Flt Permitted	1.00			0.72	0.99	
Satd. Flow (perm)	6510			4696	1652	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2208	52	109	1391	26	104
RTOR Reduction (vph)	2	0	0	0	0	0
Lane Group Flow (vph)	2258	0	0	1500	130	0
Confl. Peds. (#/hr)		1	1		3	6
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	75.8			75.8	13.2	
Effective Green, g (s)	77.8			77.8	16.2	
Actuated g/C Ratio	0.78			0.78	0.16	
Clearance Time (s)	5.0			5.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	5065			3653	268	
v/s Ratio Prot	c0.35				c0.08	
v/s Ratio Perm				0.32		
v/c Ratio	0.45			1.36dl	0.49	
Uniform Delay, d1	3.8			3.6	38.1	
Progression Factor	0.28			1.00	1.00	
Incremental Delay, d2	0.3			0.0	1.4	
Delay (s)	1.3			3.6	39.5	
Level of Service	A			A	D	
Approach Delay (s)	1.3			3.6	39.5	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	796	91	1129	81
v/c Ratio	0.23	0.64	0.28	0.23
Control Delay	3.9	77.1	4.5	23.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.9	77.1	4.5	23.7
Queue Length 50th (ft)	46	61	114	11
Queue Length 95th (ft)	66	m91	126	33
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)		100		
Base Capacity (vph)	3424	143	4006	485
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.64	0.28	0.17

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	620	120	85	1050	35	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frpb, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.98		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	4391		1586	4600	3204	
Flt Permitted	1.00		0.95	1.00	0.98	
Satd. Flow (perm)	4391		1586	4600	3204	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	667	129	91	1129	38	43
RTOR Reduction (vph)	22	0	0	0	39	0
Lane Group Flow (vph)	774	0	91	1129	42	0
Confl. Peds. (#/hr)		25	25			
Heavy Vehicles (%)	11%	7%	10%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	74.1		6.4	84.5	6.5	
Effective Green, g (s)	75.1		7.4	85.5	8.5	
Actuated g/C Ratio	0.75		0.07	0.86	0.08	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3298		117	3933	272	
v/s Ratio Prot	0.18		c0.06	c0.25	c0.01	
v/s Ratio Perm						
v/c Ratio	0.23		0.78	0.29	0.15	
Uniform Delay, d1	3.8		45.5	1.4	42.4	
Progression Factor	1.00		1.40	2.83	1.00	
Incremental Delay, d2	0.2		22.2	0.1	0.4	
Delay (s)	3.9		85.7	4.1	42.8	
Level of Service	A		F	A	D	
Approach Delay (s)	3.9			10.2	42.8	
Approach LOS	A			B	D	

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	707	1217	195	152
v/c Ratio	0.47	0.69	0.65	0.43
Control Delay	7.6	28.6	43.9	26.7
Queue Delay	0.0	52.3	0.0	0.0
Total Delay	7.6	80.9	43.9	26.7
Queue Length 50th (ft)	111	389	106	56
Queue Length 95th (ft)	153	461	#185	117
Internal Link Dist (ft)	308	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	1515	1771	300	357
Starvation Cap Reductn	0	672	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	1.11	0.65	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	535	35	40	995	85	80	60	40	35	35	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			2.0			2.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.94	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.99			0.99			0.97			0.93	
Flt Protected		0.99			1.00			0.98			0.99	
Satd. Flow (prot)		3005			3150			1636			1552	
Flt Permitted		0.66			0.90			0.75			0.89	
Satd. Flow (perm)		2001			2846			1261			1397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	582	38	43	1082	92	87	65	43	38	38	76
RTOR Reduction (vph)	0	4	0	0	6	0	0	10	0	0	36	0
Lane Group Flow (vph)	0	703	0	0	1211	0	0	185	0	0	116	0
Confl. Peds. (#/hr)	28		56	56		28	75		16	16		75
Heavy Vehicles (%)	4%	15%	0%	2%	8%	8%	1%	0%	9%	6%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			59.0			20.0			20.0	
Effective Green, g (s)		72.0			62.0			23.0			23.0	
Actuated g/C Ratio		0.72			0.62			0.23			0.23	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1531			1765			290			321	
v/s Ratio Prot		c0.04										
v/s Ratio Perm		0.29			c0.43			c0.15			0.08	
v/c Ratio		0.46			0.69			0.64			0.36	
Uniform Delay, d1		5.9			12.6			34.7			32.3	
Progression Factor		1.27			2.14			1.00			1.00	
Incremental Delay, d2		1.0			1.3			10.3			3.1	
Delay (s)		8.4			28.3			45.0			35.5	
Level of Service		A			C			D			D	
Approach Delay (s)		8.4			28.3			45.0			35.5	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	629	1283	134	15
v/c Ratio	0.33	0.83	0.25	0.04
Control Delay	13.8	20.6	27.4	12.2
Queue Delay	0.0	19.6	0.0	0.1
Total Delay	13.8	40.1	27.4	12.3
Queue Length 50th (ft)	116	305	64	0
Queue Length 95th (ft)	177	419	112	15
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	1889	1542	530	385
Starvation Cap Reductn	0	45	0	0
Spillback Cap Reductn	0	292	0	136
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	1.03	0.25	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	555	55	140	1105	0	0	0	0	20	110	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.95			0.95						1.00	1.00
Frpb, ped/bikes		0.98			1.00						1.00	0.97
Flpb, ped/bikes		1.00			0.99						1.00	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.99	1.00
Satd. Flow (prot)		2988			3206						1712	1290
Flt Permitted		1.00			0.76						0.99	1.00
Satd. Flow (perm)		2988			2448						1712	1290
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	572	57	144	1139	0	0	0	0	21	113	15
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	11
Lane Group Flow (vph)	0	622	0	0	1283	0	0	0	0	0	134	4
Confl. Peds. (#/hr)	23		42	42		23	8		13	13		8
Heavy Vehicles (%)	0%	14%	5%	12%	7%	0%	0%	0%	0%	12%	5%	18%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases				6						4		4
Actuated Green, G (s)		61.0			61.0						28.0	28.0
Effective Green, g (s)		63.0			63.0						31.0	29.0
Actuated g/C Ratio		0.63			0.63						0.31	0.29
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		1882			1542						531	374
v/s Ratio Prot		0.21										
v/s Ratio Perm					c0.52						0.08	0.00
v/c Ratio		0.33			0.83						0.25	0.01
Uniform Delay, d1		8.6			14.4						25.8	25.3
Progression Factor		1.59			1.00						1.00	1.00
Incremental Delay, d2		0.4			5.4						1.1	0.1
Delay (s)		14.1			19.8						27.0	25.3
Level of Service		B			B						C	C
Approach Delay (s)		14.1			19.8			0.0			26.8	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	605	1422	358
v/c Ratio	1.43dl	0.73	0.66
Control Delay	15.6	5.1	35.7
Queue Delay	0.0	0.8	0.0
Total Delay	15.6	5.9	35.7
Queue Length 50th (ft)	116	61	193
Queue Length 95th (ft)	176	m13	295
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	959	1960	544
Starvation Cap Reductn	0	255	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.63	0.83	0.66

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	440	0	0	1245	105	45	265	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.95			0.95			1.00				
Frpb, ped/bikes		1.00			0.99			0.99				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.99			0.99				
Flt Protected		0.99			1.00			0.99				
Satd. Flow (prot)		2956			3152			1690				
Flt Permitted		0.52			1.00			0.99				
Satd. Flow (perm)		1545			3152			1690				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	142	463	0	0	1311	111	47	279	32	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	605	0	0	1416	0	0	355	0	0	0	0
Confl. Peds. (#/hr)	34		44	44		34	20		46	46		20
Heavy Vehicles (%)	32%	12%	0%	0%	8%	11%	2%	5%	15%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		60.0			60.0			29.0				
Effective Green, g (s)		62.0			62.0			32.0				
Actuated g/C Ratio		0.62			0.62			0.32				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		958			1954			541				
v/s Ratio Prot					c0.45							
v/s Ratio Perm		0.39						0.21				
v/c Ratio		1.43dl			0.72			0.66				
Uniform Delay, d1		11.9			13.1			29.3				
Progression Factor		1.00			0.37			1.00				
Incremental Delay, d2		3.2			0.2			6.1				
Delay (s)		15.0			5.0			35.3				
Level of Service		B			A			D				
Approach Delay (s)		15.0			5.0			35.3			0.0	
Approach LOS		B			A			D			A	

Intersection Summary			
HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	501	4644	10	96
v/c Ratio	0.32	2.22	no cap	0.23
Control Delay	6.1	570.0		31.0
Queue Delay	0.0	0.0		0.0
Total Delay	6.1	570.0	Error	31.0
Queue Length 50th (ft)	42	~2584	0	48
Queue Length 95th (ft)	67	m#2672	0	92
Internal Link Dist (ft)	570	260	380	350
Turn Bay Length (ft)				
Base Capacity (vph)	1553	2088	1	413
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.32	2.22	10.00	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	335	35	30	1225	20	0	0	0	15	35	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.95			0.95						1.00	
Frpb, ped/bikes		0.96			1.00						0.96	
Flpb, ped/bikes		1.00			1.00						0.99	
Frt		0.99			1.00						0.94	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		2955			3230						1576	
Flt Permitted		0.91			0.94						0.99	
Satd. Flow (perm)		2699			3030						1576	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	356	37	32	1303	21	0	0	0	16	37	48
RTOR Reduction (vph)	0	8	0	0	1	0	0	0	0	0	33	0
Lane Group Flow (vph)	0	396	0	0	1355	0	0	0	0	0	68	0
Confl. Peds. (#/hr)	30		82	82		30	43		26	26		43
Heavy Vehicles (%)	0%	12%	18%	7%	7%	0%	0%	0%	0%	0%	3%	5%
Parking (#/hr)						0						0
Turn Type	Perm			Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		66.0			66.0						23.0	
Effective Green, g (s)		68.0			68.0						26.0	
Actuated g/C Ratio		0.68			0.68						0.26	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		1835			2060						410	
v/s Ratio Prot												
v/s Ratio Perm		0.15			c0.45						0.04	
v/c Ratio		0.22			0.66						0.17	
Uniform Delay, d1		6.0			9.3						28.6	
Progression Factor		0.80			0.03						1.00	
Incremental Delay, d2		0.3			0.9						0.9	
Delay (s)		5.0			1.2						29.5	
Level of Service		A			A						C	
Approach Delay (s)		5.0			1.2			0.0			29.5	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	3.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	473	1522	355	156
v/c Ratio	0.34	0.98	0.54	0.23
Control Delay	24.5	27.5	24.9	19.2
Queue Delay	0.0	314.3	0.0	0.0
Total Delay	24.5	341.8	24.9	19.2
Queue Length 50th (ft)	111	70	161	60
Queue Length 95th (ft)	137	#650	251	106
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	1389	1547	657	668
Starvation Cap Reductn	0	9	0	0
Spillback Cap Reductn	0	660	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.34	1.72	0.54	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	405	25	40	1325	50	30	260	40	10	125	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			0.99			0.98			0.99	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		3034			3203			1597			1625	
Flt Permitted		0.88			0.93			0.97			0.97	
Satd. Flow (perm)		2665			2970			1550			1584	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	435	27	43	1425	54	32	280	43	11	134	11
RTOR Reduction (vph)	0	4	0	0	2	0	0	5	0	0	3	0
Lane Group Flow (vph)	0	469	0	0	1520	0	0	350	0	0	153	0
Confl. Peds. (#/hr)	85		147	147		85	123		92	92		123
Heavy Vehicles (%)	0%	11%	30%	17%	7%	0%	0%	11%	5%	7%	10%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		50.0			50.0			40.0			40.0	
Effective Green, g (s)		52.0			52.0			42.0			42.0	
Actuated g/C Ratio		0.52			0.52			0.42			0.42	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1386			1544			651			665	
v/s Ratio Prot												
v/s Ratio Perm		0.18			c0.51			c0.23			0.10	
v/c Ratio		0.34			0.98			0.54			0.23	
Uniform Delay, d1		14.0			23.6			21.7			18.6	
Progression Factor		1.72			0.41			1.00			1.00	
Incremental Delay, d2		0.6			15.8			3.2			0.8	
Delay (s)		24.7			25.5			24.9			19.4	
Level of Service		C			C			C			B	
Approach Delay (s)		24.7			25.5			24.9			19.4	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	24.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	479	1506	74	53
v/c Ratio	0.26	0.74	0.20	0.15
Control Delay	3.2	2.6	24.9	21.6
Queue Delay	0.0	0.6	0.0	0.0
Total Delay	3.2	3.1	24.9	21.6
Queue Length 50th (ft)	21	19	28	16
Queue Length 95th (ft)	24	24	66	48
Internal Link Dist (ft)	264	235	418	349
Turn Bay Length (ft)				
Base Capacity (vph)	1861	2040	373	363
Starvation Cap Reductn	0	150	0	0
Spillback Cap Reductn	0	206	1	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.82	0.20	0.15

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	405	40	15	1365	50	30	20	20	15	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.99			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			0.99			0.96			0.95	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3030			3205			1685			1556	
Flt Permitted		0.91			0.95			0.87			0.92	
Satd. Flow (perm)		2765			3040			1495			1447	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	426	42	16	1437	53	32	21	21	16	16	21
RTOR Reduction (vph)	0	7	0	0	3	0	0	14	0	0	16	0
Lane Group Flow (vph)	0	472	0	0	1503	0	0	60	0	0	37	0
Confl. Peds. (#/hr)	27		59	59		27	19		23	23		19
Heavy Vehicles (%)	0%	12%	3%	0%	8%	0%	0%	0%	0%	8%	0%	12%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			24.0			24.0	
Actuated g/C Ratio		0.67			0.67			0.24			0.24	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		1853			2037			359			347	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.49			c0.04			0.03	
v/c Ratio		0.25			0.74			0.17			0.11	
Uniform Delay, d1		6.6			10.8			30.1			29.6	
Progression Factor		0.46			0.09			1.00			1.00	
Incremental Delay, d2		0.3			1.5			1.0			0.6	
Delay (s)		3.3			2.5			31.1			30.3	
Level of Service		A			A			C			C	
Approach Delay (s)		3.3			2.5			31.1			30.3	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	473	1511	81	75
v/c Ratio	0.24	0.79	0.27	0.19
Control Delay	1.6	2.8	27.3	27.4
Queue Delay	0.2	1.7	0.0	0.0
Total Delay	1.8	4.5	27.3	27.4
Queue Length 50th (ft)	14	19	31	32
Queue Length 95th (ft)	20	m21	74	70
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	1964	1919	295	404
Starvation Cap Reductn	760	241	0	0
Spillback Cap Reductn	0	6	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.90	0.27	0.19

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	410	30	40	1365	0	50	0	25	5	50	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		0.99			1.00			0.95			0.97	
Flt Protected		1.00			1.00			0.97			1.00	
Satd. Flow (prot)		3060			3243			1626			1739	
Flt Permitted		1.00			0.92			0.78			0.98	
Satd. Flow (perm)		3060			2996			1318			1712	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	441	32	43	1468	0	54	0	27	5	54	16
RTOR Reduction (vph)	0	5	0	0	0	0	0	18	0	0	10	0
Lane Group Flow (vph)	0	468	0	0	1511	0	0	63	0	0	65	0
Confl. Peds. (#/hr)	41		62	62		41	16		8	8		16
Heavy Vehicles (%)	0%	11%	8%	8%	7%	0%	0%	0%	6%	20%	0%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		1958			1917			277			394	
v/s Ratio Prot		0.15										
v/s Ratio Perm					c0.50			c0.05			0.04	
v/c Ratio		0.24			0.79			0.23			0.16	
Uniform Delay, d1		7.6			13.1			32.8			30.8	
Progression Factor		0.18			0.09			1.00			1.00	
Incremental Delay, d2		0.3			1.6			1.9			0.9	
Delay (s)		1.7			2.8			34.7			31.7	
Level of Service		A			A			C			C	
Approach Delay (s)		1.7			2.8			34.7			31.7	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	458	1594	328	57
v/c Ratio	0.29	0.91	0.54	0.10
Control Delay	11.2	18.0	29.8	21.0
Queue Delay	0.2	0.2	0.0	0.0
Total Delay	11.4	18.2	29.8	21.0
Queue Length 50th (ft)	63	270	163	22
Queue Length 95th (ft)	84	#337	251	50
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	1603	1749	604	576
Starvation Cap Reductn	484	0	0	0
Spillback Cap Reductn	0	12	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.41	0.92	0.54	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	415	10	40	1365	125	35	255	25	10	40	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			0.99			0.99			0.99	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3114			3174			1768			1734	
Flt Permitted		0.87			0.93			0.97			0.93	
Satd. Flow (perm)		2713			2952			1718			1635	
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)	16	432	10	42	1422	130	36	266	26	10	42	5
RTOR Reduction (vph)	0	2	0	0	7	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	456	0	0	1587	0	0	325	0	0	54	0
Confl. Peds. (#/hr)	47		65	65		47	17		60	60		17
Heavy Vehicles (%)	0%	11%	20%	0%	7%	0%	0%	0%	14%	7%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		57.0			57.0			32.0			32.0	
Effective Green, g (s)		59.0			59.0			35.0			35.0	
Actuated g/C Ratio		0.59			0.59			0.35			0.35	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		1601			1742			601			572	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.54			c0.19			0.03	
v/c Ratio		0.29			0.91			0.54			0.09	
Uniform Delay, d1		10.1			18.2			26.1			21.8	
Progression Factor		1.06			0.59			1.00			1.00	
Incremental Delay, d2		0.4			6.4			3.5			0.3	
Delay (s)		11.2			17.1			29.5			22.2	
Level of Service		B			B			C			C	
Approach Delay (s)		11.2			17.1			29.5			22.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	475	1589	74	90
v/c Ratio	0.23	0.72	0.23	0.24
Control Delay	7.1	2.0	30.8	27.3
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	7.1	2.1	30.8	27.3
Queue Length 50th (ft)	51	17	35	37
Queue Length 95th (ft)	51	20	75	81
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	2023	2213	319	376
Starvation Cap Reductn	0	72	0	0
Spillback Cap Reductn	0	26	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.74	0.23	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	430	10	20	1470	20	35	25	10	10	50	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			0.99			1.00	
Frt		1.00			1.00			0.98			0.96	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3086			3249			1650			1685	
Flt Permitted		0.91			0.95			0.84			0.97	
Satd. Flow (perm)		2807			3074			1423			1642	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	453	11	21	1547	21	37	26	11	11	53	26
RTOR Reduction (vph)	0	2	0	0	1	0	0	6	0	0	15	0
Lane Group Flow (vph)	0	473	0	0	1588	0	0	68	0	0	75	0
Confl. Peds. (#/hr)	39		54	54		39	17		27	27		17
Heavy Vehicles (%)	17%	12%	11%	0%	7%	0%	9%	0%	0%	11%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		70.0			70.0			19.0			19.0	
Effective Green, g (s)		72.0			72.0			22.0			22.0	
Actuated g/C Ratio		0.72			0.72			0.22			0.22	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2021			2213			313			361	
v/s Ratio Prot												
v/s Ratio Perm		0.17			c0.52			c0.05			0.05	
v/c Ratio		0.23			0.72			0.22			0.21	
Uniform Delay, d1		4.7			8.1			31.9			31.9	
Progression Factor		1.46			0.08			1.00			1.00	
Incremental Delay, d2		0.3			1.3			1.6			1.3	
Delay (s)		7.2			2.0			33.5			33.2	
Level of Service		A			A			C			C	
Approach Delay (s)		7.2			2.0			33.5			33.2	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	478	1557	137	48
v/c Ratio	0.24	0.76	0.34	0.13
Control Delay	8.4	7.3	28.3	23.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	8.4	7.3	28.3	23.6
Queue Length 50th (ft)	71	130	61	18
Queue Length 95th (ft)	101	m148	115	46
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	1976	2057	400	383
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.24	0.76	0.34	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	445	5	25	1450	5	50	45	35	25	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		1.00			1.00			0.96			0.97	
Flt Protected		1.00			1.00			0.98			0.97	
Satd. Flow (prot)		3137			3258			1595			1611	
Flt Permitted		0.94			0.94			0.88			0.84	
Satd. Flow (perm)		2949			3070			1430			1386	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	468	5	26	1526	5	53	47	37	26	11	11
RTOR Reduction (vph)	0	1	0	0	0	0	0	13	0	0	8	0
Lane Group Flow (vph)	0	477	0	0	1557	0	0	124	0	0	40	0
Confl. Peds. (#/hr)	22		28	28		22	6		15	15		6
Heavy Vehicles (%)	10%	11%	0%	0%	7%	0%	8%	12%	0%	7%	9%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		1976			2057			386			374	
v/s Ratio Prot												
v/s Ratio Perm		0.16			c0.51			c0.09			0.03	
v/c Ratio		0.24			0.76			0.32			0.11	
Uniform Delay, d1		6.5			11.0			29.2			27.4	
Progression Factor		1.25			0.55			1.00			1.00	
Incremental Delay, d2		0.3			1.1			2.2			0.6	
Delay (s)		8.4			7.1			31.4			28.0	
Level of Service		A			A			C			C	
Approach Delay (s)		8.4			7.1			31.4			28.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	521	1603	56	193	338
v/c Ratio	0.38	0.95	no cap	0.48	0.40
Control Delay	16.5	9.1		31.8	26.4
Queue Delay	0.0	4.1		0.0	0.0
Total Delay	16.5	13.2	Error	31.8	26.4
Queue Length 50th (ft)	116	33	0	106	86
Queue Length 95th (ft)	135	m33	0	183	128
Internal Link Dist (ft)	721	273	253		111
Turn Bay Length (ft)					
Base Capacity (vph)	1371	1693	1	398	842
Starvation Cap Reductn	0	62	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.98	56.00	0.48	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	355	40	115	1110	0	0	0	0	255	95	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.95			0.95					0.91	0.91	
Frpb, ped/bikes		0.99			1.00					1.00	0.98	
Flpb, ped/bikes		1.00			0.99					0.98	0.99	
Frt		0.98			1.00					1.00	0.98	
Flt Protected		1.00			1.00					0.95	0.98	
Satd. Flow (prot)		3084			3205					1491	2885	
Flt Permitted		1.00			0.85					0.95	0.98	
Satd. Flow (perm)		3084			2747					1491	2885	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	366	41	119	1144	0	0	0	0	263	98	31
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	10	0
Lane Group Flow (vph)	0	399	0	0	1263	0	0	0	0	131	251	0
Confl. Peds. (#/hr)	47		69	69		47	102		17	17		102
Heavy Vehicles (%)	0%	11%	0%	6%	8%	0%	0%	0%	0%	4%	14%	4%
Turn Type				pm+pt						Perm		
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		43.0			59.0					31.0	31.0	
Effective Green, g (s)		44.0			61.0					33.0	33.0	
Actuated g/C Ratio		0.44			0.61					0.33	0.33	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		1357			1740					492	952	
v/s Ratio Prot		0.13			c0.10							
v/s Ratio Perm					c0.34					c0.09	0.09	
v/c Ratio		0.29			0.73					0.27	0.26	
Uniform Delay, d1		18.0			13.6					24.6	24.6	
Progression Factor		0.84			2.19					1.00	1.00	
Incremental Delay, d2		0.5			1.7					1.3	0.7	
Delay (s)		15.7			31.7					25.9	25.3	
Level of Service		B			C					C	C	
Approach Delay (s)		15.7			31.7			0.0			25.5	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	221	674	2137	458	668	242	421
v/c Ratio	1.12	0.24	0.78	1.13	0.77	0.41	1.09
Control Delay	122.0	0.2	24.6	124.8	18.5	3.1	105.5
Queue Delay	0.0	0.2	0.1	0.0	0.0	0.3	0.0
Total Delay	122.0	0.4	24.8	124.8	18.5	3.4	105.5
Queue Length 50th (ft)	~112	0	226	~175	220	0	~156
Queue Length 95th (ft)	#260	0	299	#278	296	4	#256
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	198	2823	2732	405	873	590	388
Starvation Cap Reductn	0	1196	0	0	0	81	0
Spillback Cap Reductn	0	0	66	0	0	1	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.41	0.80	1.13	0.77	0.48	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	210	605	35	1970	60	375	60	635	230	335	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		1.00		0.99		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	0.99		1.00		0.98		0.85	0.85	0.98	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1646	4616		5926		3018		2568	1406	2770	
Flt Permitted	0.09	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	158	4616		5926		3018		2568	1406	2770	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	221	637	37	2074	63	395	63	668	242	353	68
RTOR Reduction (vph)	0	7	0	4	0	13	0	0	117	0	0
Lane Group Flow (vph)	221	667	0	2133	0	445	0	668	125	421	0
Confl. Peds. (#/hr)	26		14		26		29		1		29
Heavy Vehicles (%)	6%	8%	0%	6%	6%	6%	5%	7%	11%	13%	10%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	52.0	56.0		44.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	52.0	59.0		46.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.52	0.59		0.46		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	201	2723		2726		392		796	436	388	
v/s Ratio Prot	c0.09	0.14		0.36		c0.15		0.26	0.09	c0.15	
v/s Ratio Perm	c0.48										
v/c Ratio	1.10	0.25		0.78		1.14		0.84	0.29	1.09	
Uniform Delay, d1	36.6	9.8		22.8		43.5		32.2	26.1	43.0	
Progression Factor	0.57	0.00		0.99		1.00		0.42	0.13	0.82	
Incremental Delay, d2	91.2	0.2		2.0		87.6		9.8	1.6	69.9	
Delay (s)	112.0	0.2		24.5		131.1		23.2	5.1	105.0	
Level of Service	F	A		C		F		C	A	F	
Approach Delay (s)		27.8		24.5		131.1				105.0	
Approach LOS		C		C		F				F	

Intersection Summary			
HCM Average Control Delay	41.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR
Lane Group Flow (vph)	906	1728	717
v/c Ratio	0.35	0.95	0.34
Control Delay	6.7	18.0	0.3
Queue Delay	0.2	34.2	0.5
Total Delay	6.8	52.2	0.8
Queue Length 50th (ft)	90	437	0
Queue Length 95th (ft)	109	#741	0
Internal Link Dist (ft)	273	124	
Turn Bay Length (ft)			
Base Capacity (vph)	2610	1817	2083
Starvation Cap Reductn	771	213	856
Spillback Cap Reductn	33	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	1.08	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑↑	↑↑	↱↱		
Volume (vph)	0	815	1555	645	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0	3.0		
Lane Util. Factor		0.91	0.95	0.88		
Frt		1.00	1.00	0.85		
Flt Protected		1.00	1.00	1.00		
Satd. Flow (prot)		4424	3079	2424		
Flt Permitted		1.00	1.00	1.00		
Satd. Flow (perm)		4424	3079	2424		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	906	1728	717	0	0
RTOR Reduction (vph)	0	0	0	201	0	0
Lane Group Flow (vph)	0	906	1728	516	0	0
Turn Type		NA	NA	custom		
Protected Phases		2 5	2 5	2 5 4		
Permitted Phases				2 5		
Actuated Green, G (s)		56.0	56.0	77.0		
Effective Green, g (s)		57.0	57.0	72.0		
Actuated g/C Ratio		0.57	0.57	0.72		
Clearance Time (s)						
Lane Grp Cap (vph)		2522	1755	1745		
v/s Ratio Prot		0.20	c0.56	c0.21		
v/s Ratio Perm						
v/c Ratio		0.36	0.98	0.30		
Uniform Delay, d1		11.6	21.1	5.0		
Progression Factor		0.59	0.37	0.00		
Incremental Delay, d2		0.4	14.7	0.3		
Delay (s)		7.3	22.4	0.3		
Level of Service		A	C	A		
Approach Delay (s)		7.3	15.9		0.0	
Approach LOS		A	B		A	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

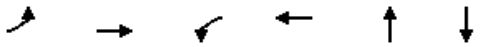
Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	66	52	55	1054	870
v/c Ratio	0.08	0.09	0.07	0.74	0.55
Control Delay	10.9	15.2	13.8	19.1	25.5
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	10.9	15.2	13.8	19.2	25.6
Queue Length 50th (ft)	13	16	15	116	156
Queue Length 95th (ft)	41	46	44	m51	167
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	843	573	750	2401	2110
Starvation Cap Reductn	0	0	0	246	0
Spillback Cap Reductn	0	0	0	0	121
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.07	0.49	0.44

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	20	70	25	5	65	800	115	5	775	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		0.99		1.00	1.00			0.99			1.00	
Flpb, ped/bikes		0.99		0.99	0.99			1.00			1.00	
Frt		0.95		1.00	0.99			0.98			0.99	
Flt Protected		0.98		0.95	0.98			1.00			1.00	
Satd. Flow (prot)		1703		1460	1555			4548			4606	
Flt Permitted		0.92		0.71	0.90			0.79			0.93	
Satd. Flow (perm)		1597		1097	1431			3612			4299	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	22	22	22	75	27	5	70	860	124	5	833	32
RTOR Reduction (vph)	0	10	0	0	2	0	0	31	0	0	5	0
Lane Group Flow (vph)	0	56	0	52	53	0	0	1023	0	0	865	0
Confl. Peds. (#/hr)	16		11	11		16	24		32	32		24
Heavy Vehicles (%)	0%	0%	0%	12%	5%	0%	0%	7%	13%	50%	8%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		52.3		52.3	52.3			35.7			35.7	
Effective Green, g (s)		52.3		52.3	52.3			38.7			36.7	
Actuated g/C Ratio		0.52		0.52	0.52			0.39			0.37	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)		3.0		3.0	3.0			1.0			1.0	
Lane Grp Cap (vph)		835		574	748			1398			1578	
v/s Ratio Prot												
v/s Ratio Perm		0.03		c0.05	0.04			c0.28			0.20	
v/c Ratio		0.07		0.09	0.07			0.73			0.55	
Uniform Delay, d1		11.8		11.9	11.8			26.2			25.1	
Progression Factor		1.00		1.00	1.00			0.77			1.00	
Incremental Delay, d2		0.0		0.3	0.2			0.2			0.2	
Delay (s)		11.8		12.3	12.0			20.4			25.3	
Level of Service		B		B	B			C			C	
Approach Delay (s)		11.8			12.1			20.4			25.3	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



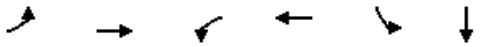
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	774	27	2086	156	21
v/c Ratio	0.04	0.23	0.05	0.56	0.57	0.12
Control Delay	2.3	3.9	0.4	2.7	24.6	30.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	2.3	3.9	0.4	2.7	24.6	30.6
Queue Length 50th (ft)	1	44	1	32	35	9
Queue Length 95th (ft)	m5	m61	m1	m41	92	29
Internal Link Dist (ft)		329		556	273	214
Turn Bay Length (ft)	250		200			
Base Capacity (vph)	286	3419	589	3697	469	368
Starvation Cap Reductn	0	0	0	341	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.23	0.05	0.62	0.33	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	705	15	25	1930	10	35	15	95	10	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0		0.0	2.0			3.0			3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.96			0.99	
Flpb, ped/bikes	1.00	1.00		0.99	1.00			0.99			0.98	
Frt	1.00	1.00		1.00	1.00			0.91			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.97	
Satd. Flow (prot)	1745	4581		1644	4681			1484			1599	
Flt Permitted	0.07	1.00		0.33	1.00			0.92			0.77	
Satd. Flow (perm)	130	4581		575	4681			1381			1257	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	758	16	27	2075	11	38	16	102	11	5	5
RTOR Reduction (vph)	0	1	0	0	0	0	0	83	0	0	4	0
Lane Group Flow (vph)	11	773	0	27	2086	0	0	73	0	0	17	0
Confl. Peds. (#/hr)	26		31	31		26	23		50	50		23
Heavy Vehicles (%)	0%	9%	0%	5%	7%	0%	5%	0%	7%	10%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	70.4	69.0		76.0	71.8			10.8			10.8	
Effective Green, g (s)	78.4	73.0		81.2	75.8			13.8			13.8	
Actuated g/C Ratio	0.78	0.73		0.81	0.76			0.14			0.14	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0			3.0			3.0	
Lane Grp Cap (vph)	189	3344		555	3548			191			173	
v/s Ratio Prot	c0.00	0.17		0.00	c0.45							
v/s Ratio Perm	0.04			0.04				c0.05			0.01	
v/c Ratio	0.06	0.23		0.05	0.59			0.38			0.10	
Uniform Delay, d1	3.3	4.4		1.8	5.3			39.2			37.7	
Progression Factor	0.92	0.76		0.19	0.49			1.00			1.00	
Incremental Delay, d2	0.0	0.2		0.0	0.1			1.3			0.2	
Delay (s)	3.0	3.5		0.3	2.6			40.5			37.9	
Level of Service	A	A		A	A			D			D	
Approach Delay (s)		3.5			2.6			40.5			37.9	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	88	736	49	2785	335	610
v/c Ratio	0.38	0.29	0.11	1.11	0.68	0.60
Control Delay	24.7	13.7	9.3	79.4	36.8	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	13.7	9.3	79.4	36.8	31.0
Queue Length 50th (ft)	33	67	11	~770	184	168
Queue Length 95th (ft)	75	100	30	#937	253	202
Internal Link Dist (ft)		556		454		345
Turn Bay Length (ft)	250		175			
Base Capacity (vph)	230	2495	432	2513	616	1256
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.29	0.11	1.11	0.54	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	545	125	45	1925	610	0	0	0	305	515	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0		3.0	3.0					3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91					1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.98					1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					0.98	1.00	
Frt	1.00	0.97		1.00	0.96					1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1745	4514		1659	4516					1621	3291	
Flt Permitted	0.07	1.00		0.33	1.00					0.95	1.00	
Satd. Flow (perm)	137	4514		568	4516					1621	3291	
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)	88	599	137	49	2115	670	0	0	0	335	566	44
RTOR Reduction (vph)	0	31	0	0	48	0	0	0	0	0	6	0
Lane Group Flow (vph)	88	705	0	49	2737	0	0	0	0	335	604	0
Confl. Peds. (#/hr)	18		13	13		18	19		21	21		19
Heavy Vehicles (%)	0%	9%	0%	5%	7%	0%	0%	0%	0%	5%	5%	0%
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	57.4	51.8		57.4	51.8					27.6	27.6	
Effective Green, g (s)	61.4	53.8		59.4	53.8					30.6	30.6	
Actuated g/C Ratio	0.61	0.54		0.59	0.54					0.31	0.31	
Clearance Time (s)	4.0	5.0		4.0	5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0					3.0	3.0	
Lane Grp Cap (vph)	206	2429		409	2430					496	1007	
v/s Ratio Prot	c0.03	0.16		0.01	c0.61						0.18	
v/s Ratio Perm	0.23			0.06						c0.21		
v/c Ratio	0.43	0.29		0.12	1.13					0.68	0.60	
Uniform Delay, d1	20.9	12.6		8.6	23.1					30.4	29.5	
Progression Factor	1.87	1.07		1.00	1.00					1.00	1.00	
Incremental Delay, d2	0.5	0.3		0.0	62.8					3.6	1.0	
Delay (s)	39.5	13.8		8.7	85.9					34.0	30.5	
Level of Service	D	B		A	F					C	C	
Approach Delay (s)		16.5			84.6			0.0			31.7	
Approach LOS		B			F			A			C	

Intersection Summary			
HCM Average Control Delay	61.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

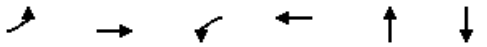
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	17	928	2245	294	450
v/c Ratio	0.07	0.31	0.81	0.65	0.90
Control Delay	6.5	8.3	19.5	39.3	55.7
Queue Delay	0.0	0.0	0.4	0.0	0.0
Total Delay	6.5	8.3	19.9	39.3	55.7
Queue Length 50th (ft)	3	88	328	163	266
Queue Length 95th (ft)	10	110	535	256	#446
Internal Link Dist (ft)		223	206		315
Turn Bay Length (ft)	100				
Base Capacity (vph)	228	2999	2768	458	512
Starvation Cap Reductn	0	0	148	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.31	0.86	0.64	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	835	0	0	1735	285	265	325	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	4.0			4.0		3.0	3.0				
Lane Util. Factor	1.00	0.91			0.91		1.00	1.00				
Frpb, ped/bikes	1.00	1.00			0.99		1.00	0.99				
Flpb, ped/bikes	1.00	1.00			1.00		0.95	1.00				
Frt	1.00	1.00			0.98		1.00	0.97				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1745	4643			4567		1579	1734				
Flt Permitted	0.07	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	123	4643			4567		1579	1734				
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	928	0	0	1928	317	294	361	89	0	0	0
RTOR Reduction (vph)	0	0	0	0	20	0	0	9	0	0	0	0
Lane Group Flow (vph)	17	928	0	0	2225	0	294	441	0	0	0	0
Confl. Peds. (#/hr)	14		13	13		14	40		22	22		40
Heavy Vehicles (%)	0%	8%	0%	0%	7%	2%	5%	2%	2%	0%	0%	0%
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)	62.6	62.6			55.8		25.4	25.4				
Effective Green, g (s)	64.6	64.6			57.8		28.4	28.4				
Actuated g/C Ratio	0.65	0.65			0.58		0.28	0.28				
Clearance Time (s)	4.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)	157	2999			2640		448	492				
v/s Ratio Prot	0.01	c0.20			c0.49			c0.25				
v/s Ratio Perm	0.06						0.19					
v/c Ratio	0.11	0.31			0.84		0.66	0.90				
Uniform Delay, d1	12.3	7.8			17.4		31.5	34.4				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.3			3.5		3.5	18.6				
Delay (s)	12.4	8.1			20.8		35.0	52.9				
Level of Service	B	A			C		C	D				
Approach Delay (s)		8.2			20.8			45.8			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	11	1017	11	2219	61	61
v/c Ratio	0.05	0.27	0.02	0.58	0.34	0.28
Control Delay	2.4	3.4	2.0	5.5	38.9	30.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	2.4	3.4	2.0	5.7	38.9	30.7
Queue Length 50th (ft)	1	42	1	138	30	23
Queue Length 95th (ft)	4	107	4	333	66	59
Internal Link Dist (ft)		295		240	445	227
Turn Bay Length (ft)	150		150			
Base Capacity (vph)	224	3793	511	3846	390	463
Starvation Cap Reductn	0	0	0	723	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.27	0.02	0.71	0.16	0.13

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	855	50	10	1965	10	35	10	10	15	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	4.0		2.0	4.0			3.0			3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
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			0.99			1.00	
Frt	1.00	0.99		1.00	1.00			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1745	4612		1744	4682			1721			1699	
Flt Permitted	0.06	1.00		0.26	1.00			0.77			0.92	
Satd. Flow (perm)	110	4612		482	4682			1362			1590	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	11	961	56	11	2208	11	39	11	11	17	22	22
RTOR Reduction (vph)	0	3	0	0	0	0	0	10	0	0	20	0
Lane Group Flow (vph)	11	1014	0	11	2219	0	0	51	0	0	41	0
Confl. Peds. (#/hr)	14		1	1		14	8		6	6		8
Heavy Vehicles (%)	0%	8%	2%	0%	7%	0%	0%	0%	0%	0%	0%	0%
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	76.2	75.0		76.2	75.0			7.8			7.8	
Effective Green, g (s)	80.2	77.0		80.2	77.0			10.8			10.8	
Actuated g/C Ratio	0.80	0.77		0.80	0.77			0.11			0.11	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0			3.0			3.0	
Lane Grp Cap (vph)	141	3551		427	3605			147			172	
v/s Ratio Prot	c0.00	0.22		0.00	c0.47							
v/s Ratio Perm	0.06			0.02				c0.04			0.03	
v/c Ratio	0.08	0.29		0.03	0.62			0.35			0.24	
Uniform Delay, d1	3.2	3.4		2.0	5.0			41.3			40.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.2		0.0	0.8			1.4			0.7	
Delay (s)	3.3	3.6		2.0	5.8			42.8			41.6	
Level of Service	A	A		A	A			D			D	
Approach Delay (s)		3.6			5.8			42.8			41.6	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	6.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	1091	2375	34
v/c Ratio	0.26	0.57	0.18
Control Delay	1.6	2.9	27.5
Queue Delay	0.0	0.3	0.0
Total Delay	1.6	3.2	27.5
Queue Length 50th (ft)	40	136	10
Queue Length 95th (ft)	57	184	38
Internal Link Dist (ft)	188	178	477
Turn Bay Length (ft)			
Base Capacity (vph)	4144	4144	655
Starvation Cap Reductn	0	918	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.26	0.74	0.05

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↑	
Volume (vph)	960	0	0	2090	15	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.91			0.91	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.93	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	4643			4643	1653	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	4643			4643	1653	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	1091	0	0	2375	17	17
RTOR Reduction (vph)	0	0	0	0	16	0
Lane Group Flow (vph)	1091	0	0	2375	18	0
Confl. Peds. (#/hr)					2	8
Heavy Vehicles (%)	8%	0%	0%	8%	0%	0%
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.3			83.3	4.7	
Effective Green, g (s)	85.3			85.3	7.7	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	3960			3960	127	
v/s Ratio Prot	0.23			c0.51	c0.01	
v/s Ratio Perm						
v/c Ratio	0.28			0.60	0.14	
Uniform Delay, d1	1.4			2.2	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.2			0.7	0.5	
Delay (s)	1.6			2.9	43.6	
Level of Service	A			A	D	
Approach Delay (s)	1.6			2.9	43.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	43	1027	2495	112
v/c Ratio	0.19	0.28	0.75	0.45
Control Delay	4.3	3.1	8.9	38.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.3	3.1	8.9	38.4
Queue Length 50th (ft)	4	47	352	56
Queue Length 95th (ft)	13	79	0	104
Internal Link Dist (ft)		189	190	446
Turn Bay Length (ft)	100			
Base Capacity (vph)	393	3695	3313	486
Starvation Cap Reductn	0	0	2	0
Spillback Cap Reductn	0	45	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.11	0.28	0.75	0.23

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	965	2065	280	80	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0	3.0		3.0	
Lane Util. Factor	1.00	0.91	0.91		1.00	
Frpb, ped/bikes	1.00	1.00	0.99		0.99	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.97	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1745	4643	4529		1637	
Flt Permitted	0.05	1.00	1.00		0.96	
Satd. Flow (perm)	100	4643	4529		1637	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	43	1027	2197	298	85	27
RTOR Reduction (vph)	0	0	9	0	14	0
Lane Group Flow (vph)	43	1027	2486	0	98	0
Confl. Peds. (#/hr)	17			17	19	16
Heavy Vehicles (%)	0%	8%	8%	5%	5%	0%
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)	77.6	77.6	69.4		11.4	
Effective Green, g (s)	79.6	79.6	71.4		14.4	
Actuated g/C Ratio	0.80	0.80	0.71		0.14	
Clearance Time (s)	4.0	5.0	5.0		6.0	
Vehicle Extension (s)	1.0	1.0	1.0		3.0	
Lane Grp Cap (vph)	182	3696	3234		236	
v/s Ratio Prot	0.01	c0.22	c0.55		c0.06	
v/s Ratio Perm	0.17					
v/c Ratio	0.24	0.28	0.77		0.42	
Uniform Delay, d1	7.6	2.7	9.1		39.0	
Progression Factor	1.00	1.00	0.75		1.00	
Incremental Delay, d2	0.2	0.2	1.5		1.2	
Delay (s)	7.9	2.9	8.3		40.2	
Level of Service	A	A	A		D	
Approach Delay (s)		3.1	8.3		40.2	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NEL
Lane Group Flow (vph)	1069	133	2495	10
v/c Ratio	0.29	0.28	0.57	0.03
Control Delay	3.2	3.1	3.1	30.2
Queue Delay	0.1	0.0	0.1	0.0
Total Delay	3.3	3.1	3.2	30.2
Queue Length 50th (ft)	23	0	0	5
Queue Length 95th (ft)	167	41	375	19
Internal Link Dist (ft)	190		888	573
Turn Bay Length (ft)				
Base Capacity (vph)	3735	593	4374	456
Starvation Cap Reductn	1281	0	0	0
Spillback Cap Reductn	0	0	631	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.22	0.67	0.02

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	975	30	125	2345	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	1.00		1.00	1.00	0.99	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	4629		1678	4643	1627	
Flt Permitted	1.00		0.23	1.00	0.98	
Satd. Flow (perm)	4629		412	4643	1627	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1037	32	133	2495	5	5
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1068	0	133	2495	10	0
Confl. Peds. (#/hr)		1	1		1	1
Heavy Vehicles (%)	8%	0%	4%	8%	2%	2%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	73.8		85.0	85.0	4.0	
Effective Green, g (s)	75.8		86.0	87.0	7.0	
Actuated g/C Ratio	0.76		0.86	0.87	0.07	
Clearance Time (s)	5.0		4.0	5.0	6.0	
Vehicle Extension (s)	1.0		1.0	1.0	3.0	
Lane Grp Cap (vph)	3509		458	4039	114	
v/s Ratio Prot	0.23		0.02	c0.54	c0.01	
v/s Ratio Perm			0.23			
v/c Ratio	0.30		0.29	0.62	0.09	
Uniform Delay, d1	3.8		1.4	1.8	43.5	
Progression Factor	0.79		1.00	1.00	1.00	
Incremental Delay, d2	0.2		0.1	0.7	0.3	
Delay (s)	3.2		1.5	2.5	43.8	
Level of Service	A		A	A	D	
Approach Delay (s)	3.2			2.5	43.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	707	1217	195	152
v/c Ratio	0.59	0.84	0.65	0.43
Control Delay	12.7	15.0	43.9	26.7
Queue Delay	0.0	1.6	0.0	0.0
Total Delay	12.7	16.6	43.9	26.7
Queue Length 50th (ft)	94	259	106	56
Queue Length 95th (ft)	114	253	#185	117
Internal Link Dist (ft)	308	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	1197	1456	300	357
Starvation Cap Reductn	0	108	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.59	0.90	0.65	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	535	35	40	995	85	80	60	40	35	35	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			2.0			2.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.94	
Flpb, ped/bikes		1.00			1.00			0.97			1.00	
Frt		0.99			0.99			0.97			0.93	
Flt Protected		0.99			1.00			0.98			0.99	
Satd. Flow (prot)		3005			3150			1636			1552	
Flt Permitted		0.62			0.90			0.75			0.89	
Satd. Flow (perm)		1875			2843			1261			1397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	582	38	43	1082	92	87	65	43	38	38	76
RTOR Reduction (vph)	0	4	0	0	6	0	0	10	0	0	36	0
Lane Group Flow (vph)	0	703	0	0	1211	0	0	185	0	0	116	0
Confl. Peds. (#/hr)	28		56	56		28	75		16	16		75
Heavy Vehicles (%)	4%	15%	0%	2%	8%	8%	1%	0%	9%	6%	0%	1%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		57.0			48.0			20.0			20.0	
Effective Green, g (s)		60.0			51.0			23.0			23.0	
Actuated g/C Ratio		0.60			0.51			0.23			0.23	
Clearance Time (s)		6.0			6.0			5.0			5.0	
Lane Grp Cap (vph)		1215			1450			290			321	
v/s Ratio Prot		c0.05										
v/s Ratio Perm		0.30			c0.43			c0.15			0.08	
v/c Ratio		0.58			0.84			0.64			0.36	
Uniform Delay, d1		12.3			20.9			34.7			32.3	
Progression Factor		0.94			0.53			1.00			1.00	
Incremental Delay, d2		2.0			3.6			10.3			3.1	
Delay (s)		13.5			14.7			45.0			35.5	
Level of Service		B			B			D			D	
Approach Delay (s)		13.5			14.7			45.0			35.5	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	221	674	2137	458	668	242	421
v/c Ratio	1.13	0.24	1.16	1.13	0.77	0.38	1.09
Control Delay	126.1	0.2	109.0	124.8	18.1	2.1	105.5
Queue Delay	0.0	0.2	76.4	0.0	0.0	2.8	0.0
Total Delay	126.1	0.4	185.4	124.8	18.1	4.9	105.5
Queue Length 50th (ft)	~110	0	~459	~175	220	0	~156
Queue Length 95th (ft)	#259	0	#535	#278	296	2	#256
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	196	2801	1842	405	873	638	388
Starvation Cap Reductn	0	1176	0	0	0	125	0
Spillback Cap Reductn	0	0	237	0	0	287	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.41	1.33	1.13	0.77	0.69	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	210	605	35	1970	60	375	60	635	230	335	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	1.5		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		1.00		0.99		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	0.99		1.00		0.98		0.85	0.85	0.98	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1646	4618		5926		3018		2568	1406	2770	
Flt Permitted	0.14	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	239	4618		5926		3018		2568	1406	2770	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	221	637	37	2074	63	395	63	668	242	353	68
RTOR Reduction (vph)	0	7	0	4	0	13	0	0	167	0	0
Lane Group Flow (vph)	221	667	0	2133	0	445	0	668	75	421	0
Confl. Peds. (#/hr)	26		14		26		29		1		29
Heavy Vehicles (%)	6%	8%	0%	6%	6%	6%	5%	7%	11%	13%	10%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	1 2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	37.0	56.0		29.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	37.0	58.0		31.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.37	0.58		0.31		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	201	2678		1837		392		796	436	388	
v/s Ratio Prot	c0.09	c0.14		c0.36		c0.15		0.26	0.05	c0.15	
v/s Ratio Perm	0.32										
v/c Ratio	1.10	0.25		1.16		1.14		0.84	0.17	1.09	
Uniform Delay, d1	42.8	10.3		34.5		43.5		32.2	25.1	43.0	
Progression Factor	0.52	0.00		0.96		1.00		0.40	0.13	0.82	
Incremental Delay, d2	91.1	0.2		77.8		87.6		9.8	0.8	69.9	
Delay (s)	113.5	0.2		110.8		131.1		22.8	4.2	105.0	
Level of Service	F	A		F		F		C	A	F	
Approach Delay (s)		28.2		110.8		131.1				105.0	
Approach LOS		C		F		F				F	

Intersection Summary			
HCM Average Control Delay	79.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.5
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NEL
Lane Group Flow (vph)	1069	133	2495	10
v/c Ratio	0.29	0.28	0.57	0.03
Control Delay	1.7	3.1	3.1	30.2
Queue Delay	0.1	0.0	0.1	0.0
Total Delay	1.8	3.1	3.2	30.2
Queue Length 50th (ft)	10	0	0	5
Queue Length 95th (ft)	71	41	375	19
Internal Link Dist (ft)	190		888	573
Turn Bay Length (ft)				
Base Capacity (vph)	3735	593	4374	456
Starvation Cap Reductn	1281	0	0	0
Spillback Cap Reductn	0	0	631	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.22	0.67	0.02

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	975	30	125	2345	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	1.00		1.00	1.00	0.99	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	4629		1678	4643	1627	
Flt Permitted	1.00		0.23	1.00	0.98	
Satd. Flow (perm)	4629		412	4643	1627	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1037	32	133	2495	5	5
RTOR Reduction (vph)	1	0	0	0	0	0
Lane Group Flow (vph)	1068	0	133	2495	10	0
Confl. Peds. (#/hr)		1	1		1	1
Heavy Vehicles (%)	8%	0%	4%	8%	2%	2%
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	73.8		85.0	85.0	4.0	
Effective Green, g (s)	75.8		86.0	87.0	7.0	
Actuated g/C Ratio	0.76		0.86	0.87	0.07	
Clearance Time (s)	5.0		4.0	5.0	6.0	
Vehicle Extension (s)	1.0		1.0	1.0	3.0	
Lane Grp Cap (vph)	3509		458	4039	114	
v/s Ratio Prot	0.23		0.02	c0.54	c0.01	
v/s Ratio Perm			0.23			
v/c Ratio	0.30		0.29	0.62	0.09	
Uniform Delay, d1	3.8		1.4	1.8	43.5	
Progression Factor	0.40		1.00	1.00	1.00	
Incremental Delay, d2	0.2		0.1	0.7	0.3	
Delay (s)	1.8		1.5	2.5	43.8	
Level of Service	A		A	A	D	
Approach Delay (s)	1.8			2.5	43.8	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	NBL
Lane Group Flow (vph)	920	53	521	181
v/c Ratio	0.26	0.58	0.14	0.40
Control Delay	4.4	60.5	1.6	28.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	4.4	60.5	1.6	28.3
Queue Length 50th (ft)	58	30	13	35
Queue Length 95th (ft)	84	m#76	m23	66
Internal Link Dist (ft)	809		450	323
Turn Bay Length (ft)		100		
Base Capacity (vph)	3494	91	3773	866
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.58	0.14	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	770	95	50	490	110	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	0.97	
Frpb, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.98		1.00	1.00	0.95	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	4655		1517	4600	3269	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	4655		1517	4600	3269	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	819	101	53	521	117	64
RTOR Reduction (vph)	10	0	0	0	56	0
Lane Group Flow (vph)	910	0	53	521	125	0
Confl. Peds. (#/hr)		22	22			
Heavy Vehicles (%)	4%	16%	15%	9%	0%	0%
Turn Type	NA		Prot	NA	NA	
Protected Phases	2		1	6	4	
Permitted Phases						
Actuated Green, G (s)	73.0		4.0	81.0	10.0	
Effective Green, g (s)	74.0		5.0	82.0	12.0	
Actuated g/C Ratio	0.74		0.05	0.82	0.12	
Clearance Time (s)	4.0		4.0	4.0	5.0	
Vehicle Extension (s)	1.0		4.0	1.0	4.0	
Lane Grp Cap (vph)	3445		76	3772	392	
v/s Ratio Prot	c0.20		c0.03	0.11	c0.04	
v/s Ratio Perm						
v/c Ratio	0.26		0.70	0.14	0.32	
Uniform Delay, d1	4.2		46.8	1.8	40.3	
Progression Factor	1.00		0.78	0.79	1.00	
Incremental Delay, d2	0.2		24.3	0.1	0.6	
Delay (s)	4.4		60.8	1.5	40.9	
Level of Service	A		E	A	D	
Approach Delay (s)	4.4			7.0	40.9	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	889	558	101	319
v/c Ratio	0.51	0.35	0.29	0.91
Control Delay	5.8	7.6	32.5	67.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.8	7.6	32.5	67.1
Queue Length 50th (ft)	51	42	50	189
Queue Length 95th (ft)	61	57	97	#354
Internal Link Dist (ft)	304	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	1731	1603	349	350
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.35	0.29	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	625	45	15	425	85	20	65	10	90	125	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.98	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.99			0.98			0.99			0.96	
Flt Protected		0.99			1.00			0.99			0.99	
Satd. Flow (prot)		3246			3076			1726			1681	
Flt Permitted		0.69			0.92			0.86			0.86	
Satd. Flow (perm)		2270			2835			1495			1462	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	176	665	48	16	452	90	21	69	11	96	133	90
RTOR Reduction (vph)	0	4	0	0	16	0	0	5	0	0	14	0
Lane Group Flow (vph)	0	885	0	0	542	0	0	96	0	0	305	0
Confl. Peds. (#/hr)	28		41	41		28	33		10	10		33
Heavy Vehicles (%)	0%	5%	2%	7%	9%	2%	5%	3%	0%	0%	0%	5%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		68.0			53.0			20.0			20.0	
Effective Green, g (s)		71.0			56.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.56			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		1748			1588			344			336	
v/s Ratio Prot		c0.07										
v/s Ratio Perm		0.29			0.19			0.06			c0.21	
v/c Ratio		0.51			0.34			0.28			0.91	
Uniform Delay, d1		6.6			12.0			31.7			37.5	
Progression Factor		0.83			0.62			1.00			1.00	
Incremental Delay, d2		1.0			0.6			2.0			30.5	
Delay (s)		6.5			8.0			33.7			68.0	
Level of Service		A			A			C			E	
Approach Delay (s)		6.5			8.0			33.7			68.0	
Approach LOS		A			A			C			E	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	804	592	386	43
v/c Ratio	0.37	0.34	0.91	0.14
Control Delay	3.7	6.5	63.7	20.6
Queue Delay	0.2	0.0	0.0	0.0
Total Delay	3.8	6.5	63.7	20.6
Queue Length 50th (ft)	46	68	240	11
Queue Length 95th (ft)	m56	94	#413	40
Internal Link Dist (ft)	338	224	337	
Turn Bay Length (ft)				75
Base Capacity (vph)	2171	1739	426	312
Starvation Cap Reductn	537	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.34	0.91	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	675	60	70	475	0	0	0	0	60	295	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	5.0
Lane Util. Factor		0.95			0.95						1.00	1.00
Frpb, ped/bikes		0.99			1.00						1.00	0.96
Flpb, ped/bikes		1.00			0.99						0.99	1.00
Frt		0.99			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.99	1.00
Satd. Flow (prot)		3247			3235						1773	1343
Flt Permitted		0.95			0.76						0.99	1.00
Satd. Flow (perm)		3093			2484						1773	1343
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	734	65	76	516	0	0	0	0	65	321	43
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	16
Lane Group Flow (vph)	0	797	0	0	592	0	0	0	0	0	386	27
Confl. Peds. (#/hr)	3		40	40		34	15		20	20		15
Heavy Vehicles (%)	0%	5%	0%	4%	7%	0%	0%	0%	0%	3%	2%	12%
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		2			6						4	
Permitted Phases	2			6						4		4
Actuated Green, G (s)		68.0			68.0						21.0	21.0
Effective Green, g (s)		70.0			70.0						24.0	22.0
Actuated g/C Ratio		0.70			0.70						0.24	0.22
Clearance Time (s)		5.0			5.0						6.0	6.0
Lane Grp Cap (vph)		2165			1739						426	295
v/s Ratio Prot												
v/s Ratio Perm		c0.26			0.24						0.22	0.02
v/c Ratio		0.37			0.34						0.91	0.09
Uniform Delay, d1		6.1			5.9						36.9	31.0
Progression Factor		0.55			1.00						1.00	1.00
Incremental Delay, d2		0.4			0.5						25.4	0.6
Delay (s)		3.7			6.4						62.4	31.6
Level of Service		A			A						E	C
Approach Delay (s)		3.7			6.4			0.0			59.3	
Approach LOS		A			A			A			E	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT
Lane Group Flow (vph)	834	559	624
v/c Ratio	0.40	0.27	1.24
Control Delay	9.0	11.2	154.9
Queue Delay	0.0	0.0	0.0
Total Delay	9.0	11.2	154.9
Queue Length 50th (ft)	120	107	~477
Queue Length 95th (ft)	156	136	#695
Internal Link Dist (ft)	220	570	396
Turn Bay Length (ft)			
Base Capacity (vph)	2061	2058	503
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.40	0.27	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	765	0	0	470	50	50	250	280	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0				
Lane Util. Factor		0.95			0.95			1.00				
Frpb, ped/bikes		1.00			0.98			0.96				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.99			0.93				
Flt Protected		1.00			1.00			1.00				
Satd. Flow (prot)		3346			3151			1617				
Flt Permitted		0.95			1.00			1.00				
Satd. Flow (perm)		3170			3151			1617				
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	823	0	0	505	54	54	269	301	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	33	0	0	0	0
Lane Group Flow (vph)	0	834	0	0	551	0	0	591	0	0	0	0
Confl. Peds. (#/hr)	41		44	44		41	21		47	47		21
Heavy Vehicles (%)	16%	4%	0%	0%	8%	2%	5%	2%	0%	0%	0%	0%
Parking (#/hr)							0		0			
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)		63.0			63.0			26.0				
Effective Green, g (s)		65.0			65.0			29.0				
Actuated g/C Ratio		0.65			0.65			0.29				
Clearance Time (s)		5.0			5.0			6.0				
Lane Grp Cap (vph)		2061			2048			469				
v/s Ratio Prot					0.17							
v/s Ratio Perm		c0.26						0.37				
v/c Ratio		0.40			0.27			1.26				
Uniform Delay, d1		8.3			7.4			35.5				
Progression Factor		1.00			1.52			1.00				
Incremental Delay, d2		0.6			0.3			133.0				
Delay (s)		8.9			11.6			168.5				
Level of Service		A			B			F				
Approach Delay (s)		8.9			11.6			168.5			0.0	
Approach LOS		A			B			F			A	

Intersection Summary			
HCM Average Control Delay	59.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1101	595	15	128
v/c Ratio	0.50	0.28	no cap	0.36
Control Delay	7.9	5.5		27.3
Queue Delay	0.0	0.1		0.0
Total Delay	7.9	5.7	Error	27.3
Queue Length 50th (ft)	240	52	0	50
Queue Length 95th (ft)	m153	m51	0	105
Internal Link Dist (ft)	570	260	380	350
Turn Bay Length (ft)				
Base Capacity (vph)	2204	2151	1	351
Starvation Cap Reductn	0	666	0	0
Spillback Cap Reductn	67	0	0	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.52	0.40	15.00	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1060	60	25	435	20	0	0	0	35	60	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0						3.0	
Lane Util. Factor		0.95			0.95						1.00	
Frpb, ped/bikes		0.98			0.99						0.99	
Flpb, ped/bikes		1.00			1.00						0.99	
Frt		0.99			0.99						0.97	
Flt Protected		1.00			1.00						0.99	
Satd. Flow (prot)		3234			3175						1703	
Flt Permitted		0.94			0.86						0.99	
Satd. Flow (perm)		3029			2722						1703	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	1128	64	27	463	21	0	0	0	37	64	27
RTOR Reduction (vph)	0	4	0	0	3	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	1215	0	0	508	0	0	0	0	0	119	0
Confl. Peds. (#/hr)	42		72	72		42	29		26	26		29
Heavy Vehicles (%)	0%	5%	4%	10%	8%	6%	0%	0%	0%	0%	0%	4%
Parking (#/hr)						0						0
Turn Type	Perm			Perm						Perm		
Protected Phases		2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)		69.0			69.0						20.0	
Effective Green, g (s)		71.0			71.0						23.0	
Actuated g/C Ratio		0.71			0.71						0.23	
Clearance Time (s)		5.0			5.0						6.0	
Lane Grp Cap (vph)		2151			1933						392	
v/s Ratio Prot												
v/s Ratio Perm		c0.40			0.19						0.07	
v/c Ratio		0.56			0.26						0.30	
Uniform Delay, d1		7.0			5.2						31.9	
Progression Factor		0.11			1.10						1.00	
Incremental Delay, d2		0.8			0.3						2.0	
Delay (s)		1.5			6.0						33.8	
Level of Service		A			A						C	
Approach Delay (s)		1.5			6.0			0.0			33.8	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1165	591	346	330
v/c Ratio	0.59	0.33	0.80	0.88
Control Delay	4.1	9.1	46.7	60.2
Queue Delay	0.0	0.2	0.0	0.0
Total Delay	4.1	9.2	46.7	60.2
Queue Length 50th (ft)	30	77	191	199
Queue Length 95th (ft)	37	84	#337	#362
Internal Link Dist (ft)	260	264	400	355
Turn Bay Length (ft)				
Base Capacity (vph)	1986	1789	432	374
Starvation Cap Reductn	0	460	0	0
Spillback Cap Reductn	28	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.80	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	1010	55	25	495	35	20	200	105	50	235	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			0.98			0.94			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			0.99			0.96			0.99	
Flt Protected		1.00			1.00			1.00			0.99	
Satd. Flow (prot)		3245			3106			1529			1646	
Flt Permitted		0.93			0.87			0.97			0.80	
Satd. Flow (perm)		3006			2703			1481			1325	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	1074	59	27	527	37	21	213	112	53	250	27
RTOR Reduction (vph)	0	4	0	0	5	0	0	17	0	0	3	0
Lane Group Flow (vph)	0	1161	0	0	586	0	0	329	0	0	327	0
Confl. Peds. (#/hr)	131		220	220		131	123		121	121		123
Heavy Vehicles (%)	2%	4%	0%	11%	9%	3%	7%	8%	7%	5%	7%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		64.0			64.0			26.0			26.0	
Effective Green, g (s)		66.0			66.0			28.0			28.0	
Actuated g/C Ratio		0.66			0.66			0.28			0.28	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1984			1784			415			371	
v/s Ratio Prot												
v/s Ratio Perm		c0.39			0.22			0.22			c0.25	
v/c Ratio		0.59			0.33			0.79			0.88	
Uniform Delay, d1		9.4			7.4			33.3			34.4	
Progression Factor		0.31			1.17			1.00			1.00	
Incremental Delay, d2		1.1			0.5			14.3			24.7	
Delay (s)		4.1			9.1			47.6			59.1	
Level of Service		A			A			D			E	
Approach Delay (s)		4.1			9.1			47.6			59.1	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1208	589	73	82
v/c Ratio	0.58	0.30	0.20	0.24
Control Delay	4.4	2.3	23.1	21.2
Queue Delay	0.1	0.2	0.0	0.0
Total Delay	4.5	2.4	23.1	21.2
Queue Length 50th (ft)	57	21	24	23
Queue Length 95th (ft)	m67	33	61	64
Internal Link Dist (ft)	264	235	404	349
Turn Bay Length (ft)				
Base Capacity (vph)	2076	1935	366	346
Starvation Cap Reductn	151	533	0	0
Spillback Cap Reductn	58	0	0	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.42	0.20	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1090	45	30	495	40	25	20	25	35	10	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			6.0			6.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		0.99			0.99			0.95			0.94	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3261			3338			1674			1589	
Flt Permitted		0.93			0.85			0.88			0.85	
Satd. Flow (perm)		3048			2838			1506			1384	
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)	26	1135	47	31	516	42	26	21	26	36	10	36
RTOR Reduction (vph)	0	3	0	0	6	0	0	20	0	0	28	0
Lane Group Flow (vph)	0	1205	0	0	583	0	0	53	0	0	54	0
Confl. Peds. (#/hr)	57		77	77		57	17		24	24		17
Heavy Vehicles (%)	0%	5%	0%	4%	1%	3%	0%	0%	0%	3%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		66.0			66.0			23.0			23.0	
Effective Green, g (s)		68.0			68.0			23.0			23.0	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2073			1930			346			318	
v/s Ratio Prot												
v/s Ratio Perm		c0.40			0.21			0.04			c0.04	
v/c Ratio		0.58			0.30			0.15			0.17	
Uniform Delay, d1		8.5			6.4			30.7			30.9	
Progression Factor		0.40			0.29			1.00			1.00	
Incremental Delay, d2		0.9			0.4			0.9			1.2	
Delay (s)		4.3			2.3			31.7			32.0	
Level of Service		A			A			C			C	
Approach Delay (s)		4.3			2.3			31.7			32.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	5.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1289	553	105	132
v/c Ratio	0.61	0.31	0.34	0.36
Control Delay	4.5	10.1	21.4	34.2
Queue Delay	0.1	0.3	0.0	0.0
Total Delay	4.6	10.4	21.5	34.2
Queue Length 50th (ft)	40	76	28	68
Queue Length 95th (ft)	49	90	76	123
Internal Link Dist (ft)	235	237	413	355
Turn Bay Length (ft)				
Base Capacity (vph)	2106	1800	310	364
Starvation Cap Reductn	142	676	0	0
Spillback Cap Reductn	74	0	1	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.66	0.49	0.34	0.36

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1180	45	20	505	0	45	0	55	35	75	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0			7.0			8.0			6.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.98			1.00			0.98			0.99	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		0.99			1.00			0.93			0.98	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3286			3234			1589			1748	
Flt Permitted		1.00			0.87			0.78			0.88	
Satd. Flow (perm)		3286			2814			1275			1564	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1242	47	21	532	0	47	0	58	37	79	16
RTOR Reduction (vph)	0	3	0	0	0	0	0	42	0	0	5	0
Lane Group Flow (vph)	0	1286	0	0	553	0	0	63	0	0	127	0
Confl. Peds. (#/hr)	62		96	96		62	33		14	14		33
Heavy Vehicles (%)	0%	4%	5%	0%	8%	0%	2%	0%	0%	0%	1%	0%
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		62.0			62.0			20.0			20.0	
Effective Green, g (s)		64.0			64.0			21.0			23.0	
Actuated g/C Ratio		0.64			0.64			0.21			0.23	
Clearance Time (s)		9.0			9.0			9.0			9.0	
Lane Grp Cap (vph)		2103			1801			268			360	
v/s Ratio Prot		c0.39										
v/s Ratio Perm					0.20			0.05			c0.08	
v/c Ratio		0.61			0.31			0.24			0.35	
Uniform Delay, d1		10.6			8.1			32.8			32.3	
Progression Factor		0.31			1.19			1.00			1.00	
Incremental Delay, d2		1.2			0.4			2.1			2.7	
Delay (s)		4.4			9.9			34.9			35.0	
Level of Service		A			A			C			C	
Approach Delay (s)		4.4			9.9			34.9			35.0	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1326	711	147	389
v/c Ratio	0.67	0.62	0.58	0.78
Control Delay	4.9	7.2	39.2	44.0
Queue Delay	0.1	0.0	0.0	0.0
Total Delay	5.1	7.2	39.2	44.0
Queue Length 50th (ft)	36	46	77	224
Queue Length 95th (ft)	45	60	147	#370
Internal Link Dist (ft)	237	284	423	348
Turn Bay Length (ft)				
Base Capacity (vph)	1969	1141	255	498
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	98	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.71	0.62	0.58	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1225	30	110	515	50	110	25	5	90	275	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			0.99			0.99	
Frt		1.00			0.99			1.00			1.00	
Flt Protected		1.00			0.99			0.96			0.99	
Satd. Flow (prot)		3277			3130			1726			1774	
Flt Permitted		0.95			0.57			0.46			0.89	
Satd. Flow (perm)		3123			1801			819			1603	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1289	32	116	542	53	116	26	5	95	289	5
RTOR Reduction (vph)	0	2	0	0	6	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	1324	0	0	705	0	0	146	0	0	388	0
Confl. Peds. (#/hr)	70		110	110		70	23		21	21		23
Heavy Vehicles (%)	0%	5%	0%	0%	9%	0%	0%	4%	4%	0%	2%	0%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		61.0			61.0			28.0			28.0	
Effective Green, g (s)		63.0			63.0			31.0			31.0	
Actuated g/C Ratio		0.63			0.63			0.31			0.31	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		1967			1135			254			497	
v/s Ratio Prot												
v/s Ratio Perm		c0.42			0.39			0.18			c0.24	
v/c Ratio		0.67			0.62			0.57			0.78	
Uniform Delay, d1		11.9			11.2			29.0			31.4	
Progression Factor		0.28			0.42			1.00			1.00	
Incremental Delay, d2		1.5			2.4			9.1			11.6	
Delay (s)		4.8			7.1			38.0			43.0	
Level of Service		A			A			D			D	
Approach Delay (s)		4.8			7.1			38.0			43.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	85.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1511	723	42	38
v/c Ratio	0.67	0.37	0.12	0.10
Control Delay	4.8	13.7	19.6	21.3
Queue Delay	0.3	0.0	0.0	0.0
Total Delay	5.0	13.7	19.6	21.3
Queue Length 50th (ft)	41	156	11	11
Queue Length 95th (ft)	47	m195	38	38
Internal Link Dist (ft)	284	472	450	344
Turn Bay Length (ft)				
Base Capacity (vph)	2239	1956	359	372
Starvation Cap Reductn	198	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.74	0.37	0.12	0.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1375	35	25	650	5	15	5	20	10	10	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.97			0.98	
Flpb, ped/bikes		1.00			1.00			0.98			0.99	
Frt		1.00			1.00			0.93			0.94	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		3320			3222			1600			1643	
Flt Permitted		0.95			0.85			0.91			0.94	
Satd. Flow (perm)		3153			2753			1489			1563	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	11	1463	37	27	691	5	16	5	21	11	11	16
RTOR Reduction (vph)	0	2	0	0	1	0	0	16	0	0	12	0
Lane Group Flow (vph)	0	1509	0	0	722	0	0	26	0	0	26	0
Confl. Peds. (#/hr)	79		67	67		79	30		32	32		30
Heavy Vehicles (%)	0%	4%	8%	4%	8%	0%	0%	1%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			69.0			20.0			20.0	
Effective Green, g (s)		71.0			71.0			23.0			23.0	
Actuated g/C Ratio		0.71			0.71			0.23			0.23	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2239			1955			342			359	
v/s Ratio Prot												
v/s Ratio Perm		c0.48			0.26			c0.02			0.02	
v/c Ratio		0.67			0.37			0.08			0.07	
Uniform Delay, d1		8.1			5.7			30.2			30.1	
Progression Factor		0.42			2.29			1.00			1.00	
Incremental Delay, d2		1.3			0.5			0.4			0.4	
Delay (s)		4.7			13.5			30.6			30.5	
Level of Service		A			B			C			C	
Approach Delay (s)		4.7			13.5			30.6			30.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1465	654	237	361
v/c Ratio	0.71	0.35	0.70	1.06
Control Delay	2.2	10.3	42.9	99.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	2.3	10.3	42.9	99.8
Queue Length 50th (ft)	13	70	127	~247
Queue Length 95th (ft)	15	m155	#232	#428
Internal Link Dist (ft)	472	721	418	334
Turn Bay Length (ft)				
Base Capacity (vph)	2076	1859	340	342
Starvation Cap Reductn	22	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.71	0.35	0.70	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	1345	50	25	595	15	75	100	55	120	150	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			0.99	
Frt		0.99			1.00			0.97			0.97	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		3305			3238			1668			1656	
Flt Permitted		0.94			0.85			0.72			0.73	
Satd. Flow (perm)		3094			2771			1216			1228	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	26	1387	52	26	613	15	77	103	57	124	155	82
RTOR Reduction (vph)	0	3	0	0	2	0	0	12	0	0	10	0
Lane Group Flow (vph)	0	1462	0	0	652	0	0	225	0	0	351	0
Confl. Peds. (#/hr)	35		74	74		35	16		20	20		16
Heavy Vehicles (%)	0%	4%	4%	0%	7%	14%	6%	2%	3%	4%	3%	6%
Parking (#/hr)						0			0			0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		65.0			65.0			24.0			24.0	
Effective Green, g (s)		67.0			67.0			27.0			27.0	
Actuated g/C Ratio		0.67			0.67			0.27			0.27	
Clearance Time (s)		5.0			5.0			6.0			6.0	
Lane Grp Cap (vph)		2073			1857			328			332	
v/s Ratio Prot												
v/s Ratio Perm		c0.47			0.24			0.19			c0.29	
v/c Ratio		0.71			0.35			0.69			1.06	
Uniform Delay, d1		10.3			7.1			32.7			36.5	
Progression Factor		0.07			1.37			1.00			1.00	
Incremental Delay, d2		1.5			0.5			11.2			65.1	
Delay (s)		2.2			10.2			43.9			101.6	
Level of Service		A			B			D			F	
Approach Delay (s)		2.2			10.2			43.9			101.6	
Approach LOS		A			B			D			F	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	1526	648	15	367	593
v/c Ratio	0.89	0.39	no cap	1.04	0.99dl
Control Delay	17.6	0.7		94.2	44.0
Queue Delay	2.3	0.1		18.3	0.6
Total Delay	19.9	0.9	Error	112.5	44.6
Queue Length 50th (ft)	182	0	0	~279	192
Queue Length 95th (ft)	m340	0	0	#473	#285
Internal Link Dist (ft)	721	273	253		111
Turn Bay Length (ft)					
Base Capacity (vph)	1710	1669	1	354	720
Starvation Cap Reductn	0	265	0	0	0
Spillback Cap Reductn	94	0	0	17	17
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.94	0.46	15.00	1.09	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1145	55	30	385	0	0	0	0	635	140	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0					3.0	3.0	
Lane Util. Factor		0.95			0.95					0.91	0.91	
Frpb, ped/bikes		1.00			1.00					1.00	1.00	
Flpb, ped/bikes		1.00			1.00					0.99	1.00	
Frt		0.99			1.00					1.00	1.00	
Flt Protected		1.00			1.00					0.95	0.97	
Satd. Flow (prot)		3290			3314					1548	3083	
Flt Permitted		1.00			0.84					0.95	0.97	
Satd. Flow (perm)		3290			2802					1548	3083	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1168	56	31	393	0	0	0	0	648	143	15
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1221	0	0	424	0	0	0	0	324	480	0
Confl. Peds. (#/hr)	38		46	46		38	76		4	4		76
Heavy Vehicles (%)	0%	5%	2%	4%	5%	0%	0%	0%	0%	2%	7%	8%
Turn Type				pm+pt						Perm		
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Actuated Green, G (s)		51.0			63.0					27.0	27.0	
Effective Green, g (s)		52.0			65.0					29.0	29.0	
Actuated g/C Ratio		0.52			0.65					0.29	0.29	
Clearance Time (s)		4.0			5.0					5.0	5.0	
Lane Grp Cap (vph)		1711			1873					449	894	
v/s Ratio Prot		c0.37			c0.02							
v/s Ratio Perm					0.12					c0.21	0.16	
v/c Ratio		0.71			0.23					0.72	0.54	
Uniform Delay, d1		18.3			7.2					31.9	29.9	
Progression Factor		0.51			1.08					1.00	1.00	
Incremental Delay, d2		2.1			0.3					9.6	2.3	
Delay (s)		11.5			8.0					41.5	32.2	
Level of Service		B			A					D	C	
Approach Delay (s)		11.5			8.0			0.0			35.9	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	389	1700	1116	379	426	174	553
v/c Ratio	1.52	0.60	0.41	0.96	0.50	0.29	1.34
Control Delay	264.1	1.9	7.8	78.4	17.6	2.4	199.5
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Total Delay	264.1	2.4	7.8	78.4	17.6	2.4	199.5
Queue Length 50th (ft)	~260	0	27	123	55	0	~240
Queue Length 95th (ft)	m#359	0	57	#218	91	8	#348
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	256	2855	2691	396	857	606	412
Starvation Cap Reductn	0	628	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.52	0.76	0.41	0.96	0.50	0.29	1.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	370	1595	20	960	100	310	50	405	165	435	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		0.99		0.98		1.00	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00	1.00	1.00	
Frt	1.00	1.00		0.99		0.98		0.85	0.85	0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1628	4679		5834		2946		2521	1446	2947	
Flt Permitted	0.18	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	302	4679		5834		2946		2521	1446	2947	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	389	1679	21	1011	105	326	53	426	174	458	95
RTOR Reduction (vph)	0	1	0	7	0	13	0	0	120	0	0
Lane Group Flow (vph)	389	1699	0	1109	0	366	0	426	54	553	0
Confl. Peds. (#/hr)	51		23		51		65		1		65
Heavy Vehicles (%)	7%	7%	0%	6%	6%	8%	2%	9%	8%	4%	5%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	52.0	56.0		44.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	52.0	59.0		46.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.52	0.59		0.46		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	263	2761		2684		383		782	448	413	
v/s Ratio Prot	c0.12	0.36		0.19		c0.12		0.17	0.04	c0.19	
v/s Ratio Perm	c0.65										
v/c Ratio	1.48	0.62		0.41		0.96		0.54	0.12	1.34	
Uniform Delay, d1	28.4	13.2		18.0		43.2		28.6	24.7	43.0	
Progression Factor	0.48	0.12		0.41		1.00		0.58	0.31	0.79	
Incremental Delay, d2	226.0	0.5		0.4		36.0		2.7	0.5	167.6	
Delay (s)	239.6	2.1		7.9		79.3		19.4	8.2	201.6	
Level of Service	F	A		A		E		B	A	F	
Approach Delay (s)		46.4		7.9		79.3				201.6	
Approach LOS		D		A		E				F	

Intersection Summary			
HCM Average Control Delay	54.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR
Lane Group Flow (vph)	2183	706	544
v/c Ratio	0.84	0.39	0.27
Control Delay	10.7	3.1	0.3
Queue Delay	14.5	0.2	0.2
Total Delay	25.3	3.4	0.5
Queue Length 50th (ft)	225	29	0
Queue Length 95th (ft)	m314	33	0
Internal Link Dist (ft)	273	124	
Turn Bay Length (ft)			
Base Capacity (vph)	2610	1817	2048
Starvation Cap Reductn	466	419	726
Spillback Cap Reductn	103	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	1.02	0.51	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑↑	↑↑	↱↱		
Volume (vph)	0	1965	635	490	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0	3.0	3.0		
Lane Util. Factor		0.91	0.95	0.88		
Frt		1.00	1.00	0.85		
Flt Protected		1.00	1.00	1.00		
Satd. Flow (prot)		4424	3079	2424		
Flt Permitted		1.00	1.00	1.00		
Satd. Flow (perm)		4424	3079	2424		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	2183	706	544	0	0
RTOR Reduction (vph)	0	0	0	152	0	0
Lane Group Flow (vph)	0	2183	706	392	0	0
Turn Type		NA	NA	custom		
Protected Phases		2 5	2 5	2 5 4		
Permitted Phases				2 5		
Actuated Green, G (s)		56.0	56.0	77.0		
Effective Green, g (s)		57.0	57.0	72.0		
Actuated g/C Ratio		0.57	0.57	0.72		
Clearance Time (s)						
Lane Grp Cap (vph)		2522	1755	1745		
v/s Ratio Prot		c0.49	0.23	c0.16		
v/s Ratio Perm						
v/c Ratio		0.87	0.40	0.22		
Uniform Delay, d1		18.2	12.0	4.7		
Progression Factor		0.55	0.23	0.05		
Incremental Delay, d2		1.8	0.6	0.3		
Delay (s)		11.8	3.4	0.5		
Level of Service		B	A	A		
Approach Delay (s)		11.8	2.2		0.0	
Approach LOS		B	A		A	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

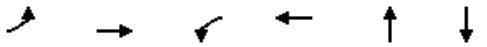
Lane Group	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	112	60	62	1293	543
v/c Ratio	0.15	0.12	0.11	0.71	0.34
Control Delay	16.6	18.9	17.6	11.7	18.8
Queue Delay	0.0	0.0	0.0	0.2	0.0
Total Delay	16.6	18.9	17.6	11.9	18.8
Queue Length 50th (ft)	35	22	21	73	81
Queue Length 95th (ft)	82	57	56	m50	88
Internal Link Dist (ft)	185		112	250	559
Turn Bay Length (ft)					
Base Capacity (vph)	753	493	571	2712	1872
Starvation Cap Reductn	0	0	0	511	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.12	0.11	0.59	0.29

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	55	20	100	10	5	50	1030	135	25	450	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			3.0			5.0	
Lane Util. Factor		1.00		0.95	0.95			0.91			0.91	
Frpb, ped/bikes		1.00		1.00	0.99			0.99			1.00	
Flpb, ped/bikes		0.99		0.97	0.98			1.00			1.00	
Frt		0.97		1.00	0.99			0.98			0.99	
Flt Protected		0.99		0.95	0.96			1.00			1.00	
Satd. Flow (prot)		1712		1453	1498			4604			4546	
Flt Permitted		0.92		0.68	0.78			0.89			0.82	
Satd. Flow (perm)		1595		1048	1211			4088			3755	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	59	21	106	11	5	53	1096	144	27	479	37
RTOR Reduction (vph)	0	6	0	0	2	0	0	26	0	0	9	0
Lane Group Flow (vph)	0	106	0	60	60	0	0	1267	0	0	534	0
Confl. Peds. (#/hr)	40		23	23		40	25		62	62		25
Heavy Vehicles (%)	4%	0%	0%	11%	0%	0%	0%	6%	6%	0%	9%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8			4		1	6			2	
Permitted Phases	8			4			6			2	2	
Actuated Green, G (s)		46.9		46.9	46.9			41.1			41.1	
Effective Green, g (s)		46.9		46.9	46.9			44.1			42.1	
Actuated g/C Ratio		0.47		0.47	0.47			0.44			0.42	
Clearance Time (s)		6.0		6.0	6.0			6.0			6.0	
Vehicle Extension (s)		3.0		3.0	3.0			1.0			1.0	
Lane Grp Cap (vph)		748		492	568			1803			1581	
v/s Ratio Prot												
v/s Ratio Perm		c0.07		0.06	0.05			c0.31			0.14	
v/c Ratio		0.14		0.12	0.11			0.70			0.34	
Uniform Delay, d1		15.1		15.0	14.8			22.6			19.5	
Progression Factor		1.00		1.00	1.00			0.54			1.00	
Incremental Delay, d2		0.1		0.5	0.4			0.1			0.0	
Delay (s)		15.2		15.5	15.2			12.3			19.6	
Level of Service		B		B	B			B			B	
Approach Delay (s)		15.2			15.3			12.3			19.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



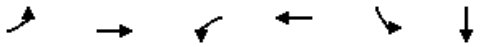
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	80	1766	32	1059	145	181
v/c Ratio	0.18	0.54	0.11	0.34	0.45	0.70
Control Delay	3.8	6.0	12.8	26.2	32.7	44.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	6.0	12.8	26.2	32.7	44.8
Queue Length 50th (ft)	7	92	14	246	69	93
Queue Length 95th (ft)	m14	m119	m27	298	117	154
Internal Link Dist (ft)		329		556	273	214
Turn Bay Length (ft)	250		200			
Base Capacity (vph)	445	3293	304	3109	442	356
Starvation Cap Reductn	0	67	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.55	0.11	0.34	0.33	0.51

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	1645	15	30	965	30	40	55	40	85	30	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	0.0	2.0		0.0	2.0			3.0			3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			0.98			0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.98	
Frt	1.00	1.00		1.00	1.00			0.96			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1686	4854		1745	4736			1693			1604	
Flt Permitted	0.23	1.00		0.09	1.00			0.86			0.71	
Satd. Flow (perm)	404	4854		170	4736			1472			1168	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	80	1750	16	32	1027	32	43	59	43	90	32	59
RTOR Reduction (vph)	0	1	0	0	2	0	0	17	0	0	20	0
Lane Group Flow (vph)	80	1765	0	32	1057	0	0	128	0	0	161	0
Confl. Peds. (#/hr)	40		50	50		40	40		41	41		40
Heavy Vehicles (%)	3%	3%	0%	0%	5%	0%	0%	0%	0%	3%	0%	5%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	67.8	62.2		65.0	60.8			17.6			17.6	
Effective Green, g (s)	74.4	66.2		73.0	64.8			20.6			20.6	
Actuated g/C Ratio	0.74	0.66		0.73	0.65			0.21			0.21	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0			3.0			3.0	
Lane Grp Cap (vph)	424	3213		253	3069			303			241	
v/s Ratio Prot	c0.02	c0.36		0.01	0.22							
v/s Ratio Perm	0.12			0.08				0.09			c0.14	
v/c Ratio	0.19	0.55		0.13	0.34			0.42			0.67	
Uniform Delay, d1	3.8	9.0		5.1	8.0			34.5			36.6	
Progression Factor	0.78	0.55		3.01	2.93			1.00			1.00	
Incremental Delay, d2	0.1	0.5		0.1	0.2			1.0			6.9	
Delay (s)	3.0	5.4		15.5	23.6			35.5			43.4	
Level of Service	A	A		B	C			D			D	
Approach Delay (s)		5.3			23.3			35.5			43.4	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	3.0
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	62	1807	94	1370	339	974
v/c Ratio	0.24	0.77	0.45	0.59	0.56	0.79
Control Delay	6.5	19.4	19.3	19.1	29.2	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	19.4	19.3	19.1	29.2	33.3
Queue Length 50th (ft)	11	420	26	222	166	278
Queue Length 95th (ft)	m20	480	60	271	254	356
Internal Link Dist (ft)		556		454		345
Turn Bay Length (ft)	250		175			
Base Capacity (vph)	257	2346	209	2335	633	1293
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.77	0.45	0.59	0.54	0.75

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	1390	345	90	1010	305	0	0	0	325	900	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0		3.0	3.0					3.0	3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91					1.00	0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99					1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					0.97	1.00	
Frt	1.00	0.97		1.00	0.97					1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1710	4726		1711	4683					1665	3396	
Flt Permitted	0.12	1.00		0.09	1.00					0.95	1.00	
Satd. Flow (perm)	216	4726		153	4683					1665	3396	
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)	62	1448	359	94	1052	318	0	0	0	339	938	36
RTOR Reduction (vph)	0	41	0	0	51	0	0	0	0	0	3	0
Lane Group Flow (vph)	62	1766	0	94	1319	0	0	0	0	339	971	0
Confl. Peds. (#/hr)	14		22	22		14	33		23	23		33
Turn Type	pm+pt	NA		pm+pt	NA					Perm	NA	
Protected Phases	1	6		5	2						8	
Permitted Phases	6			2						8		
Actuated Green, G (s)	51.6	46.0		51.6	46.0					33.4	33.4	
Effective Green, g (s)	55.6	48.0		53.6	48.0					36.4	36.4	
Actuated g/C Ratio	0.56	0.48		0.54	0.48					0.36	0.36	
Clearance Time (s)	4.0	5.0		4.0	5.0					6.0	6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0					3.0	3.0	
Lane Grp Cap (vph)	234	2268		185	2248					606	1236	
v/s Ratio Prot	0.02	c0.37		c0.03	0.28						c0.29	
v/s Ratio Perm	0.13			0.24						0.20		
v/c Ratio	0.26	0.78		0.51	0.59					0.56	0.79	
Uniform Delay, d1	12.0	21.6		16.4	18.8					25.4	28.3	
Progression Factor	0.47	0.80		1.00	1.00					1.00	1.00	
Incremental Delay, d2	0.2	2.3		0.8	1.1					1.1	3.4	
Delay (s)	5.8	19.7		17.2	19.9					26.5	31.7	
Level of Service	A	B		B	B					C	C	
Approach Delay (s)		19.3			19.8			0.0			30.4	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

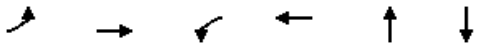
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	21	1688	1339	156	88
v/c Ratio	0.06	0.46	0.39	0.53	0.28
Control Delay	3.8	5.5	7.4	43.2	25.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	5.5	7.4	43.2	25.9
Queue Length 50th (ft)	2	122	86	91	33
Queue Length 95th (ft)	10	189	198	145	72
Internal Link Dist (ft)		223	206		315
Turn Bay Length (ft)	100				
Base Capacity (vph)	358	3704	3418	484	508
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.06	0.46	0.39	0.32	0.17

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1620	0	0	1170	115	150	55	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	4.0			4.0		3.0	3.0				
Lane Util. Factor	1.00	0.91			0.91		1.00	1.00				
Frpb, ped/bikes	1.00	1.00			0.99		1.00	0.99				
Flpb, ped/bikes	1.00	1.00			1.00		0.97	1.00				
Frt	1.00	1.00			0.99		1.00	0.95				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1709	4916			4806		1668	1684				
Flt Permitted	0.17	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	298	4916			4806		1668	1684				
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)	21	1688	0	0	1219	120	156	57	31	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	23	0	0	0	0
Lane Group Flow (vph)	21	1688	0	0	1331	0	156	65	0	0	0	0
Confl. Peds. (#/hr)	20		18	18		20	20		20	20		20
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	1	6			2			4				
Permitted Phases	6	6					4					
Actuated Green, G (s)	73.3	73.3			66.5		14.7	14.7				
Effective Green, g (s)	75.3	75.3			68.5		17.7	17.7				
Actuated g/C Ratio	0.75	0.75			0.68		0.18	0.18				
Clearance Time (s)	4.0	6.0			6.0		6.0	6.0				
Vehicle Extension (s)	1.0	1.0			1.0		3.0	3.0				
Lane Grp Cap (vph)	292	3702			3292		295	298				
v/s Ratio Prot	0.00	c0.34			0.28			0.04				
v/s Ratio Perm	0.05						c0.09					
v/c Ratio	0.07	0.46			0.40		0.53	0.22				
Uniform Delay, d1	3.6	4.6			6.9		37.4	35.2				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.0	0.4			0.4		1.7	0.4				
Delay (s)	3.6	5.1			7.2		39.1	35.6				
Level of Service	A	A			A		D	D				
Approach Delay (s)		5.0			7.2			37.8			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	46	1655	10	1180	150	164
v/c Ratio	0.12	0.48	0.04	0.36	0.66	0.54
Control Delay	5.3	8.5	5.1	9.2	47.2	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	8.5	5.1	9.2	47.2	37.4
Queue Length 50th (ft)	7	138	1	125	83	84
Queue Length 95th (ft)	20	294	7	187	139	137
Internal Link Dist (ft)		295		240	445	227
Turn Bay Length (ft)	150		150			
Base Capacity (vph)	369	3449	273	3261	308	404
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.48	0.04	0.36	0.49	0.41

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1575	30	10	1135	10	115	10	20	80	40	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	4.0		2.0	4.0			3.0			3.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
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			0.98			0.99	
Frt	1.00	1.00		1.00	1.00			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.98	
Satd. Flow (prot)	1709	4897		1710	4907			1657			1659	
Flt Permitted	0.20	1.00		0.12	1.00			0.63			0.82	
Satd. Flow (perm)	353	4897		208	4907			1078			1397	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	46	1624	31	10	1170	10	119	10	21	82	41	41
RTOR Reduction (vph)	0	1	0	0	1	0	0	6	0	0	13	0
Lane Group Flow (vph)	46	1654	0	10	1179	0	0	144	0	0	151	0
Confl. Peds. (#/hr)	9		9	9		9	33		18	33		18
Parking (#/hr)						0			0			0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	68.8	65.2		64.0	62.8			17.6			17.6	
Effective Green, g (s)	72.4	67.2		68.0	64.8			20.6			20.6	
Actuated g/C Ratio	0.72	0.67		0.68	0.65			0.21			0.21	
Clearance Time (s)	4.0	6.0		4.0	6.0			6.0			6.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0			3.0			3.0	
Lane Grp Cap (vph)	332	3291		190	3180			222			288	
v/s Ratio Prot	c0.01	c0.34		0.00	0.24							
v/s Ratio Perm	0.09			0.03				c0.13			0.11	
v/c Ratio	0.14	0.50		0.05	0.37			0.65			0.52	
Uniform Delay, d1	4.4	8.1		5.7	8.2			36.4			35.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	0.6		0.0	0.3			6.3			1.7	
Delay (s)	4.5	8.7		5.7	8.5			42.7			37.0	
Level of Service	A	A		A	A			D			D	
Approach Delay (s)		8.6			8.5			42.7			37.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	1837	1232	27
v/c Ratio	0.42	0.28	0.15
Control Delay	2.1	1.6	31.3
Queue Delay	0.1	0.0	0.0
Total Delay	2.2	1.6	31.3
Queue Length 50th (ft)	82	45	10
Queue Length 95th (ft)	115	66	36
Internal Link Dist (ft)	188	178	477
Turn Bay Length (ft)			
Base Capacity (vph)	4390	4390	630
Starvation Cap Reductn	1142	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.57	0.28	0.04

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑	↰	
Volume (vph)	1745	0	0	1170	10	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	3.0	
Lane Util. Factor	0.91			0.91	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.92	
Flt Protected	1.00			1.00	0.98	
Satd. Flow (prot)	4916			4916	1600	
Flt Permitted	1.00			1.00	0.98	
Satd. Flow (perm)	4916			4916	1600	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1837	0	0	1232	11	16
RTOR Reduction (vph)	0	0	0	0	9	0
Lane Group Flow (vph)	1837	0	0	1232	18	0
Confl. Peds. (#/hr)					10	11
Turn Type	NA			NA	NA	
Protected Phases	6			2	4	
Permitted Phases						
Actuated Green, G (s)	83.3			83.3	4.7	
Effective Green, g (s)	85.3			85.3	7.7	
Actuated g/C Ratio	0.85			0.85	0.08	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	1.0			1.0	3.0	
Lane Grp Cap (vph)	4193			4193	123	
v/s Ratio Prot	c0.37			0.25	c0.01	
v/s Ratio Perm						
v/c Ratio	0.44			0.29	0.14	
Uniform Delay, d1	1.7			1.4	43.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.3			0.2	0.5	
Delay (s)	2.1			1.6	43.6	
Level of Service	A			A	D	
Approach Delay (s)	2.1			1.6	43.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	2.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	5	1828	1328	214
v/c Ratio	0.01	0.51	0.39	0.61
Control Delay	4.6	6.7	4.0	41.7
Queue Delay	0.0	0.3	0.1	0.0
Total Delay	4.6	7.1	4.1	41.7
Queue Length 50th (ft)	1	151	32	121
Queue Length 95th (ft)	4	237	54	181
Internal Link Dist (ft)		189	190	446
Turn Bay Length (ft)	100			
Base Capacity (vph)	490	3612	3416	497
Starvation Cap Reductn	0	1018	594	0
Spillback Cap Reductn	0	796	0	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.01	0.70	0.47	0.43

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	5	1755	1160	115	185	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	3.0	3.0		3.0	
Lane Util. Factor	1.00	0.91	0.91		1.00	
Frpb, ped/bikes	1.00	1.00	0.99		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.99	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1708	4916	4786		1697	
Flt Permitted	0.16	1.00	1.00		0.96	
Satd. Flow (perm)	296	4916	4786		1697	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	1828	1208	120	193	21
RTOR Reduction (vph)	0	0	7	0	5	0
Lane Group Flow (vph)	5	1828	1321	0	209	0
Confl. Peds. (#/hr)	33			33	9	6
Turn Type	pm+pt	NA	NA		NA	
Protected Phases	1	6	2		4	
Permitted Phases	6					
Actuated Green, G (s)	71.5	71.5	66.1		17.5	
Effective Green, g (s)	73.5	73.5	68.1		20.5	
Actuated g/C Ratio	0.74	0.74	0.68		0.20	
Clearance Time (s)	4.0	5.0	5.0		6.0	
Vehicle Extension (s)	1.0	1.0	1.0		3.0	
Lane Grp Cap (vph)	266	3613	3259		348	
v/s Ratio Prot	0.00	c0.37	0.28		c0.12	
v/s Ratio Perm	0.01					
v/c Ratio	0.02	0.51	0.41		0.60	
Uniform Delay, d1	4.1	5.6	7.0		36.0	
Progression Factor	1.00	1.00	0.55		1.00	
Incremental Delay, d2	0.0	0.5	0.4		2.9	
Delay (s)	4.1	6.1	4.2		39.0	
Level of Service	A	A	A		D	
Approach Delay (s)		6.1	4.2		39.0	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NEL
Lane Group Flow (vph)	2020	36	1302	193
v/c Ratio	0.62	0.17	0.36	0.60
Control Delay	9.9	6.5	5.6	43.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	9.9	6.5	5.6	43.3
Queue Length 50th (ft)	318	5	93	112
Queue Length 95th (ft)	427	17	148	170
Internal Link Dist (ft)	190		888	573
Turn Bay Length (ft)				
Base Capacity (vph)	3279	207	3607	435
Starvation Cap Reductn	48	0	0	0
Spillback Cap Reductn	0	0	34	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.17	0.36	0.44

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1930	10	35	1250	25	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	1.00		1.00	1.00	0.98	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	1.00		1.00	1.00	0.88	
Flt Protected	1.00		0.95	1.00	0.99	
Satd. Flow (prot)	4912		1711	4916	1554	
Flt Permitted	1.00		0.06	1.00	0.99	
Satd. Flow (perm)	4912		107	4916	1554	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2010	10	36	1302	26	167
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	2020	0	36	1302	193	0
Confl. Peds. (#/hr)		1	1		3	6
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	63.2		71.4	71.4	17.6	
Effective Green, g (s)	65.2		72.4	73.4	20.6	
Actuated g/C Ratio	0.65		0.72	0.73	0.21	
Clearance Time (s)	5.0		4.0	5.0	6.0	
Vehicle Extension (s)	1.0		1.0	1.0	3.0	
Lane Grp Cap (vph)	3203		161	3608	320	
v/s Ratio Prot	c0.41		0.01	c0.26	c0.12	
v/s Ratio Perm			0.15			
v/c Ratio	0.63		0.22	0.36	0.60	
Uniform Delay, d1	10.3		7.6	4.8	36.0	
Progression Factor	0.81		1.00	1.00	1.00	
Incremental Delay, d2	0.8		0.3	0.3	3.2	
Delay (s)	9.2		7.9	5.1	39.2	
Level of Service	A		A	A	D	
Approach Delay (s)	9.2			5.2	39.2	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	889	558	101	319
v/c Ratio	0.63	0.44	0.29	0.91
Control Delay	14.5	15.6	32.5	67.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.5	15.6	32.5	67.1
Queue Length 50th (ft)	185	99	50	189
Queue Length 95th (ft)	243	202	97	#354
Internal Link Dist (ft)	304	338	340	355
Turn Bay Length (ft)				
Base Capacity (vph)	1415	1261	349	350
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.44	0.29	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	625	45	15	425	85	20	65	10	90	125	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.99			0.96	
Flt Protected		0.99			1.00			0.99			0.99	
Satd. Flow (prot)		3250			3076			1726			1681	
Flt Permitted		0.66			0.92			0.86			0.86	
Satd. Flow (perm)		2173			2830			1495			1462	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	176	665	48	16	452	90	21	69	11	96	133	90
RTOR Reduction (vph)	0	4	0	0	16	0	0	5	0	0	14	0
Lane Group Flow (vph)	0	885	0	0	542	0	0	96	0	0	305	0
Confl. Peds. (#/hr)	28		41	41		28	33		10	10		33
Heavy Vehicles (%)	0%	5%	2%	7%	9%	2%	5%	3%	0%	0%	0%	5%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		56.0			41.0			20.0			20.0	
Effective Green, g (s)		59.0			44.0			23.0			23.0	
Actuated g/C Ratio		0.59			0.44			0.23			0.23	
Clearance Time (s)		6.0			6.0			6.0			6.0	
Lane Grp Cap (vph)		1433			1245			344			336	
v/s Ratio Prot		c0.09										
v/s Ratio Perm		0.28			0.19			0.06			c0.21	
v/c Ratio		0.62			0.44			0.28			0.91	
Uniform Delay, d1		13.2			19.4			31.7			37.5	
Progression Factor		1.05			0.78			1.00			1.00	
Incremental Delay, d2		2.0			1.1			2.0			30.5	
Delay (s)		15.8			16.2			33.7			68.0	
Level of Service		B			B			C			E	
Approach Delay (s)		15.8			16.2			33.7			68.0	
Approach LOS		B			B			C			E	

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	NBT	SBR	SBR2	NEL
Lane Group Flow (vph)	389	1700	1116	379	426	174	553
v/c Ratio	2.01	0.60	0.61	0.96	0.50	0.29	1.34
Control Delay	482.2	1.9	13.3	78.4	17.6	2.4	199.5
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Total Delay	482.2	2.4	13.3	78.4	17.6	2.4	199.5
Queue Length 50th (ft)	~347	0	26	123	56	0	~240
Queue Length 95th (ft)	m#446	0	68	#218	93	8	#348
Internal Link Dist (ft)		124	112	356			542
Turn Bay Length (ft)							
Base Capacity (vph)	194	2855	1826	396	857	606	412
Starvation Cap Reductn	0	628	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	2.01	0.76	0.61	0.96	0.50	0.29	1.34

Intersection Summary

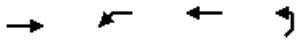
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR2	WBT	WBR	NBT	NBR	SBR	SBR2	NEL	NER
Lane Configurations											
Volume (vph)	370	1595	20	960	100	310	50	405	165	435	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	1.0		2.0		4.0		4.0	4.0	7.0	
Lane Util. Factor	1.00	0.91		0.86		0.95		0.88	1.00	0.97	
Frpb, ped/bikes	1.00	1.00		0.99		0.98		1.00	1.00	0.97	
Flpb, ped/bikes	1.00	1.00		1.00		1.00		1.00	1.00	1.00	
Frt	1.00	1.00		0.99		0.98		0.85	0.85	0.97	
Flt Protected	0.95	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (prot)	1629	4679		5834		2946		2521	1446	2947	
Flt Permitted	0.14	1.00		1.00		1.00		1.00	1.00	0.96	
Satd. Flow (perm)	237	4679		5834		2946		2521	1446	2947	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	389	1679	21	1011	105	326	53	426	174	458	95
RTOR Reduction (vph)	0	1	0	17	0	13	0	0	120	0	0
Lane Group Flow (vph)	389	1699	0	1099	0	366	0	426	54	553	0
Confl. Peds. (#/hr)	51		23		51		65		1		65
Heavy Vehicles (%)	7%	7%	0%	6%	6%	8%	2%	9%	8%	4%	5%
Parking (#/hr)						2				2	
Turn Type	D.P+P	NA		NA		NA		custom	custom	NA	
Protected Phases	5	1 2 5		2		3		3 4	3 4	4	
Permitted Phases	2								3 4		
Actuated Green, G (s)	37.0	56.0		29.0		13.0		31.0	31.0	14.0	
Effective Green, g (s)	37.0	59.0		31.0		13.0		31.0	31.0	14.0	
Actuated g/C Ratio	0.37	0.59		0.31		0.13		0.31	0.31	0.14	
Clearance Time (s)	6.0			4.0		4.0				7.0	
Lane Grp Cap (vph)	199	2761		1809		383		782	448	413	
v/s Ratio Prot	c0.16	c0.36		0.19		c0.12		0.17	0.04	c0.19	
v/s Ratio Perm	c0.57										
v/c Ratio	1.95	0.62		0.61		0.96		0.54	0.12	1.34	
Uniform Delay, d1	37.4	13.2		29.3		43.2		28.6	24.7	43.0	
Progression Factor	0.58	0.12		0.41		1.00		0.59	0.32	0.79	
Incremental Delay, d2	439.1	0.5		1.5		36.0		2.7	0.5	167.6	
Delay (s)	460.7	2.1		13.5		79.3		19.5	8.4	201.6	
Level of Service	F	A		B		E		B	A	F	
Approach Delay (s)		87.5		13.5		79.3				201.6	
Approach LOS		F		B		E				F	

Intersection Summary			
HCM Average Control Delay	73.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBL	WBT	NEL
Lane Group Flow (vph)	2020	36	1302	193
v/c Ratio	0.62	0.17	0.36	0.60
Control Delay	7.9	6.5	5.6	43.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.9	6.5	5.6	43.3
Queue Length 50th (ft)	344	5	93	112
Queue Length 95th (ft)	113	17	148	170
Internal Link Dist (ft)	190		888	573
Turn Bay Length (ft)				
Base Capacity (vph)	3279	207	3607	435
Starvation Cap Reductn	48	0	0	0
Spillback Cap Reductn	0	0	34	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.63	0.17	0.36	0.44

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1930	10	35	1250	25	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		3.0	3.0	3.0	
Lane Util. Factor	0.91		1.00	0.91	1.00	
Frpb, ped/bikes	1.00		1.00	1.00	0.98	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	1.00		1.00	1.00	0.88	
Flt Protected	1.00		0.95	1.00	0.99	
Satd. Flow (prot)	4912		1711	4916	1554	
Flt Permitted	1.00		0.06	1.00	0.99	
Satd. Flow (perm)	4912		107	4916	1554	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	2010	10	36	1302	26	167
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	2020	0	36	1302	193	0
Confl. Peds. (#/hr)		1	1		3	6
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	6		5	2	4	
Permitted Phases			2			
Actuated Green, G (s)	63.2		71.4	71.4	17.6	
Effective Green, g (s)	65.2		72.4	73.4	20.6	
Actuated g/C Ratio	0.65		0.72	0.73	0.21	
Clearance Time (s)	5.0		4.0	5.0	6.0	
Vehicle Extension (s)	1.0		1.0	1.0	3.0	
Lane Grp Cap (vph)	3203		161	3608	320	
v/s Ratio Prot	c0.41		0.01	c0.26	c0.12	
v/s Ratio Perm			0.15			
v/c Ratio	0.63		0.22	0.36	0.60	
Uniform Delay, d1	10.3		7.6	4.8	36.0	
Progression Factor	0.63		1.00	1.00	1.00	
Incremental Delay, d2	0.8		0.3	0.3	3.2	
Delay (s)	7.3		7.9	5.1	39.2	
Level of Service	A		A	A	D	
Approach Delay (s)	7.3			5.2	39.2	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Appendix 4
Streetcar Scenarios (2a-2e) HCM and Queuing Results

Movement Group Delay for Scenario 2a: Existing Conditions AM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	5.1	A
Kaiser Garage	20	5.1	A
3rd	30	11.5	B
4th	40	7.9	A
6th	60	13	B
7th	70	3.8	A
8th	80	15.7	B
9th	90	6.3	A
10th	100	5.7	A
11th	110	12.3	B
12th	120	6.2	A
13th	130	9.5	A
14th	140	14.9	B
Florida	150	2.6	A
Starburst	151	24.4	C
Bladensburg/Maryland	152	30.3	C
16th	160	10.3	B
17th	170	15.1	B
19th	190	12.2	B
21st	210	6.4	A
24th	240	2.4	A
26th	260	3.8	A
Oklahoma	270	5.6	A

Queue Lengths for Scenario 2a: Existing Conditions AM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	38.5	40.5	39.1	35.3	38.1	35.6	37.9	39.3	38.3	19.5	85.6	37.9	0	7.9	13
		Right 2	38.5	40.5	39.1	35.3	38.1	35.6	37.9	39.3	38.3	19.5	85.6	37.9	0	7.9	13
	EB	Through	41.4	41.2	41.2	37.8	41.8	41.9	42.6	42.6	42.3	41.4	152.6	41.6	0	6.2	15.9
		Right 2	41.4	41.2	41.2	37.8	41.8	41.9	42.6	42.6	42.3	41.4	152.6	41.6	0	6.2	15.9
	WB	Left 2	80.7	101.6	81.4	84.9	103.7	98.8	87.2	107.1	82.2	80.8	153	84.8	18.3	27.4	30.9
		Through	0	0	0	0	0	0	0	0	0	0	93.4	0	0	0.8	5.5
Kaiser Garage	NB	Left 2	18.3	18.8	19.2	19.3	19.1	19.4	17.5	18.6	18.9	19.8	65.4	19	0	3	7.9
		Right 2	18.3	18.8	19.2	19.3	19.1	19.4	17.5	18.6	18.9	19.8	65.4	19	0	3	7.9
	EB	Through	79.6	79.9	72.9	82	90.1	81	83.9	94.8	84.9	83.1	215.4	82.7	0	16.1	29.7
		Right 2	79.6	79.9	72.9	82	90.1	81	83.9	94.8	84.9	83.1	215.4	82.7	0	16.1	29.7
	WB	Left 2	36.7	36.8	18.6	18.5	19.3	19.9	19.2	37.3	39.7	19.1	82.9	19.8	0	4.1	10.2
		Through	59.5	39.8	41	42.8	42.2	41.3	44.8	40.9	42.3	49.2	190.8	42.1	0	6.4	17.8
3rd	NB	Left 2	168.6	101.1	103.9	167.4	86.4	129.1	117	143.8	165.3	143.3	351.8	128.1	18.9	37.2	46.7
		Through	168.6	101.1	103.9	167.4	86.4	129.1	117	143.8	165.3	143.3	351.8	128.1	18.9	37.2	46.7
		Right 2	168.6	101.1	103.9	167.4	86.4	129.1	117	143.8	165.3	143.3	351.8	128.1	18.9	37.2	46.7
	EB	Left 2	76.7	77.2	75.3	75.4	75.4	80.2	79.8	96.8	75.3	77.8	178.9	75.8	0	15.3	29.9
		Through	76.7	77.2	75.3	75.4	75.4	80.2	79.8	96.8	75.3	77.8	178.9	75.8	0	15.3	29.9
		Right 2	76.7	77.2	75.3	75.4	75.4	80.2	79.8	96.8	75.3	77.8	178.9	75.8	0	15.3	29.9
	SB	Left 2	143.8	81.7	81.5	78.9	85.5	81.3	81.8	79.4	77.3	59.8	308.1	81.3	0	16.2	31.2
		Through	143.8	81.7	81.5	78.9	85.5	81.3	81.8	79.4	77.3	59.8	308.1	81.3	0	16.2	31.2
		Right 2	134.3	72.2	72	69.5	76	71.8	72.3	69.9	67.8	50.3	298.6	71.8	0	11.5	28.5
	WB	Left 2	370.9	307.5	305.8	243.5	240.5	234.1	235.8	219.8	258.5	283.6	443.1	264.7	0	44.9	89.7
		Through	370.9	307.5	305.8	243.5	240.5	234.1	235.8	219.8	258.5	283.6	443.1	264.7	0	44.9	89.7
		Right 2	370.9	307.5	305.8	243.5	240.5	234.1	235.8	219.8	258.5	283.6	443.1	264.7	0	44.9	89.7
4th	EB	Through	41.7	43	60.1	54.4	42.2	42.5	41.6	42	42	43.6	136.9	42.5	0	8.8	18.8
		Right 2	41.7	43	60.1	54.4	42.2	42.5	41.6	42	42	43.6	136.9	42.5	0	8.8	18.8
	SB	Left 2	133.2	121.3	125.8	123.9	151.2	140.9	127.1	125.7	104.8	146.3	441.7	128.9	17.8	35.6	48.6
		Through	133.2	121.3	125.8	123.9	151.2	140.9	127.1	125.7	104.8	146.3	441.7	128.9	17.8	35.6	48.6
		Right 2	44.5	56.2	45.3	37.3	36.4	45.1	40.3	39.4	44.6	0	295.3	41.8	0	4.1	16.7
	WB	Left 2	147.9	41.2	61.2	60.7	57.4	80.3	41.2	42.9	61.1	87.2	491.7	62.8	0	12.8	33.4
		Through	147.9	41.2	61.2	60.7	57.4	80.3	41.2	42.9	61.1	87.2	491.7	62.8	0	12.8	33.4
6th	NB	Left 2	197.8	192.7	189.5	208	189.6	191.1	170.3	155.4	205.6	192.3	402.5	190.5	38.3	57.1	66
		Through	197.8	192.7	189.5	208	189.6	191.1	170.3	155.4	205.6	192.3	402.5	190.5	38.3	57.1	66
		Right 2	186.2	181.1	177.8	196.4	177.9	179.5	158.7	143.8	193.9	180.7	390.9	178.9	26.7	49.2	62.9
	EB	Left 2	124.2	123.6	106.8	109	127	125.4	122	129.2	149.7	162.5	213.7	128.2	36.5	41.9	45.4
		Through	124.2	123.6	106.8	109	127	125.4	122	129.2	149.7	162.5	213.7	128.2	36.5	41.9	45.4
	WB	Through	60	81.7	122.5	182.7	108.4	267.6	96.9	84.6	63.6	106.6	658.4	100.8	0	23.4	61.7
		Right 2	60	81.7	122.5	182.7	108.4	267.6	96.9	84.6	63.6	106.6	658.4	100.8	0	23.4	61.7
7th	EB	Left 2	39.4	40.3	41.8	39.3	41	41.6	42.2	39.7	39.5	40.5	108.5	40.7	0	6	14.7
		Through	39.4	40.3	41.8	39.3	41	41.6	42.2	39.7	39.5	40.5	108.5	40.7	0	6	14.7
		Right 2	39.4	40.3	41.8	39.3	41	41.6	42.2	39.7	39.5	40.5	108.5	40.7	0	6	14.7
	SB	Left 2	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
		Through	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
		Right 2	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
	WB	Left 2	40.9	38.5	39.9	40.7	40.7	41.3	36.2	37.9	38.9	21	347.9	39.7	0	5	17.3
		Through	40.9	38.5	39.9	40.7	40.7	41.3	36.2	37.9	38.9	21	347.9	39.7	0	5	17.3
		Right 2	40.9	38.5	39.9	40.7	40.7	41.3	36.2	37.9	38.9	21	347.9	39.7	0	5	17.3
8th	NB	Left 2	123.7	121.8	105.6	81.6	109.4	119.4	107.5	103.1	102.1	120.1	281.9	105.9	0	24.8	38.8
		Through	123.7	121.8	105.6	81.6	109.4	119.4	107.5	103.1	102.1	120.1	281.9	105.9	0	24.8	38.8
		Right 2	109.3	107.4	91.1	67.2	94.9	104.9	93	88.7	87.7	105.7	267.5	91.5	0	17.6	34.4
	EB	Left 2	106.5	101.5	84	83.9	98.3	126.6	103.3	105	103.9	100.7	171.4	101.8	0	27.2	36.2
		Through	106.5	101.5	84	83.9	98.3	126.6	103.3	105	103.9	100.7	171.4	101.8	0	27.2	36.2
		Right 2	106.5	101.5	84	83.9	98.3	126.6	103.3	105	103.9	100.7	171.4	101.8	0	27.2	36.2
	SB	Left 2	102.5	83.3	103.1	101.3	106.8	86.1	100.9	106.6	86.8	86	217.8	100.2	0	21	33.8
		Through	102.5	83.3	103.1	101.3	106.8	86.1	100.9	106.6	86.8	86	217.8	100.2	0	21	33.8
		Right 2	91.5	72.2	92	90.3	95.7	75	89.9	95.5	75.7	74.9	206.7	89.2	0	15.3	30.3
	WB	Left 2	255.9	215	156.5	172.3	170.2	164.9	149.7	210.6	166.9	144.5	370.8	174.9	26.6	49.7	65.5
		Through	255.9	215	156.5	172.3	170.2	164.9	149.7	210.6	166.9	144.5	370.8	174.9	26.6	49.7	65.5
		Right 2	255.9	215	156.5	172.3	170.2	164.9	149.7	210.6	166.9	144.5	370.8	174.9	26.6	49.7	65.5
9th	NB	Left 2	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
		Through	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
		Right 2	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
	EB	Left 2	42.4	61.3	41.4	43.6	41.7	41.6	42	42.3	42.4	42.1	109.8	42	0	9.3	17.7
		Through	42.4	61.3	41.4	43.6	41.7	41.6	42	42.3	42.4	42.1	109.8	42	0	9.3	17.7
		Right 2	42.4	61.3	41.4	43.6	41.7	41.6	42	42.3	42.4	42.1	109.8	42	0	9.3	17.7
	SB	Left 2	36.8	40.4	40.3	40.2	59.1	39.6	37.9	40.3	41.7	40.2	122.3	40.3	0	8.2	15.3
		Through	36.8	40.4	40.3	40.2	59.1	39.6	37.9	40.3	41.7	40.2	122.3	40.3	0	8.2	15.3
		Right 2	36.8	40.4	40.3	40.2	59.1	39.6	37.9	40.3	41.7	40.2	122.3	40.3	0	8.2	15.3
	WB	Left 2	62.5	43.8	40.3	41.2	40.5	41.3	39.8	42.4	40.5	41.1	328	41.6	0	8.4	24.6
		Through	62.5	43.8	40.3	41.2	40.5	41.3	39.8	42.4	40.5	41.1	328	41.6	0	8.4	24.6
		Right 2	62.5	43.8	40.3	41.2	40.5	41.3	39.8	42.4	40.5	41.1	328	41.6	0	8.4	24.6
10th	NB	Left 2	80.8	63.7	65.6	61	66.8	45.7	63.3	83	58.5	64.3	171.1	63.7	0	15.8	24.6
		Right 2	80.8	63.7	65.6	61	66.8	45.7	63.3	83	58.5	64.3	171.1	63.7	0	15.8	24.6
	EB	Through	20.3	21.1	19.9	19.6	38	20.4	36.8	19.5	19.1	19.2	84.9	20.6	0	4	10.6
		Right 2	20.3	21.1	19.9	19.6	38	20.4	36.8	19.5	19.1	19.2	84.9	20.6	0	4	10.6
	SB	Left 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Through	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Right 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
	WB	Left 2	64.1	44.7	39.1	41.4	56.8	41.4	41.9	59.8	45	59.8	335.8	42.3	0	9.1	25.8
		Through	64.1	44.7	39.1	41.4	56.8	41.4	41.9	59.8	45	59.8	335.8	42.3	0	9.1	25.8
11th	NB	Left 2	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.8	38.1	107.2	40.7	0	7.6	15.3
		Through	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.8	38.1	107.2	40.7	0	7.6	15.3
		Right 2	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.8	38.1	107.2	40.7	0	7.6	15.3
	EB	Left 2	60.8	62.4	63.5	62.5	65.8	85.4	62.4	65.2	64.3	63.4	146.6	64.2	0	13.7	24.3
		Through	60.8	62.4	63.5	62.5	65.8	85.4	62.4	65.2	64.3	63.4	146.6	64.2	0	13.7	24.3
		Right 2	60.8	62.4	63.5	62.5	65.8	85.4	62.4	65.2	64.3	63.4	146.6	64.2	0	13.7	24.3
	SB	Left 2	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.4	59.1	144.3	60.9	0	12.7	21.7
		Through	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.4	59.1	144.3	60.9	0	12.7	21.7
		Right 2	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.4	59.1	144.3	60.9	0	12.7	21.7
	WB	Left 2	166.2	162.5	162	194.6	183.2	184.1	168.3	174.4	143.2	168	390.4	170.4	0	44.9	61.4
		Through	166.2	162.5	162	194.6	183.2	184.1	168.3	174.4	143.2	168	390.4	170.4	0	44.9	61.4
		Right 2	166.2	162.5	162	194.6	183.2	184.1	168.3	174.4	143.2	168	390.4	170.4	0	44.9	61.4
12th	NB	Left 2	61.3	61.3	62.6	61.3	60	60	58.9	60.2	58.4	60.3	129.9	60.7	0	13.3	21.3
		Through	61.3	61.3	62.6	61.3	60	60	58.9	60.2	58.4	60.3	129.9	60.7	0	13.3	21.3
		Right 2	61.3	61.3	62.6	61.3	60	60	58.9	60.2	58.4	60.3	129.9	60.7	0	13.3	21.3
	EB	Left 2	41	41.3	42.6	40.4	43.3	41.9	48.2	52.7	42.1	41.2	122.5	41.8	0	8	17
		Through	41	41.3	42.6	40.4	43.3	41.9	48.2	52.7	42.1	41.2	122.5	41.8	0	8	17
		Right 2	41	41.3	42.6	40.4	43.3	41.9	48.2	52.7	42.1	41.2	122.5	41.8	0	8	17
	SB	Left 2	58.5	61.6	58.6	79.4	56.9	59.7	60.2	81	80.3	82.2	151.2	61.4	0	15.2	23.6
		Through	58.5	61.6	58.6	79.4	56.9	59.7	60.2	81	80.3	82.2	151.2	61.4	0	15.2	23.6
		Right 2	58.5	61.6	58.6	79.4	56.9	59.7	60.2	81	80.3	82.2	151.2	61.4	0	15.2	23.6
	WB	Left 2	39.7	39.5	39.5	41.1	40.3	41.1	41.3	41.3	37.4	39.6	173.6	39.9	0	6.2	15
		Through	39.7	39.5	39.5	41.1	40.3	41.1	41.3	41.3	37.4	39.6	173.6	39.9	0	6.2	15

		Right 2	39.7	39.5	39.5	41.1	40.3	41.1	41.3	41.3	37.4	39.6	173.6	39.9	0	6.2	15
13th	NB	Left 2	104.4	130	184.5	124.6	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.4	18.8	37.2	44.4
		Through	104.4	130	184.5	124.6	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.4	18.8	37.2	44.4
		Right 2	104.4	130	184.5	124.6	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.4	18.8	37.2	44.4
	EB	Left 2	43.2	46	43.9	45.7	61.7	45.7	42.5	47.2	43.4	58.4	152.8	45.9	0	8.3	20
		Through	43.2	46	43.9	45.7	61.7	45.7	42.5	47.2	43.4	58.4	152.8	45.9	0	8.3	20
		Right 2	43.2	46	43.9	45.7	61.7	45.7	42.5	47.2	43.4	58.4	152.8	45.9	0	8.3	20
	SB	Left 2	58.8	41.8	42.2	57.3	40.4	45.1	40.3	41	40.1	41.7	116.8	41.2	0	9.1	16.9
		Through	58.8	41.8	42.2	57.3	40.4	45.1	40.3	41	40.1	41.7	116.8	41.2	0	9.1	16.9
		Right 2	58.8	41.8	42.2	57.3	40.4	45.1	40.3	41	40.1	41.7	116.8	41.2	0	9.1	16.9
	WB	Left 2	104.8	100	106.1	104.8	81.7	103.6	84.8	104	101	106.2	196.9	102.1	0	18.7	35.4
		Through	104.8	100	106.1	104.8	81.7	103.6	84.8	104	101	106.2	196.9	102.1	0	18.7	35.4
		Right 2	104.8	100	106.1	104.8	81.7	103.6	84.8	104	101	106.2	196.9	102.1	0	18.7	35.4
14th	EB	Through	125.9	127.7	115.4	129.7	129.7	125.8	127.8	144.3	129.2	124.3	267.9	127.8	19	39.9	46.3
		Right 2	125.9	127.7	115.4	129.7	129.7	125.8	127.8	144.3	129.2	124.3	267.9	127.8	19	39.9	46.3
	SB	Left 2	104.3	99.2	97.9	84.7	99.9	103.4	82.6	84.2	104.9	85.2	269.5	97.9	18.3	29.6	34.3
		Through	104.3	99.2	97.9	84.7	99.9	103.4	82.6	84.2	104.9	85.2	269.5	97.9	18.3	29.6	34.3
		Right 2	100.2	95.2	93.9	80.7	95.9	99.4	78.6	80.2	100.9	81.2	265.5	93.9	0	25.1	34.1
	WB	Left 2	255.1	192	193.3	192.6	188.2	176.9	189.8	184.2	175.5	194.7	294.8	190.7	18.9	52.3	67.8
		Through	255.1	192	193.3	192.6	188.2	176.9	189.8	184.2	175.5	194.7	294.8	190.7	18.9	52.3	67.8
Florida	EB	Through	41.3	0	0	0	0	0	0	0	0	17.8	128.5	0	0	1.4	8.1
	WB	Through	102.5	105.4	86.1	105	107	123.1	118.8	115.2	84.9	104.1	221	105	0	13	35.5
		Right 1	108.3	113.3	92.6	112.8	114.9	124.3	114.5	93.4	90	107.4	228.8	111.3	0	12.7	36.1
Starburst	NB	Right 1	103.5	95.9	89.2	102.4	98.9	85.5	101.7	102.1	115.6	108.2	175.5	103.5	38.7	39.2	33.4
		Right 2	103.5	95.9	89.2	102.4	98.9	85.5	101.7	102.1	115.6	108.2	175.5	103.5	38.7	39.2	33.4
	NEB	Through	97.3	85	100.3	101.8	101	81.2	81.7	101.3	76.5	79.7	166.5	85.2	18.8	32.4	31.3
		Right 1	97.3	85	100.3	101.8	101	81.2	81.7	101.3	76.5	79.7	166.5	85.2	18.8	32.4	31.3
	EB	Left 1	253.8	95.9	179	71.6	98.3	125.9	105.6	66.2	110.3	119.4	285.3	128.3	16.6	32.9	47.1
		Through	84.1	49.2	41.9	38.2	38.7	37.2	38.1	50.9	36.7	39.3	236.7	41.2	0	7.3	20.9
		Right 3	84.1	49.2	41.9	38.2	38.7	37.2	38.1	50.9	36.7	39.3	236.7	41.2	0	7.3	20.9
	SWB	Through	219.8	228.1	186.1	222.9	204.8	225.1	223.9	227.5	227.4	218.5	279.8	219.9	108.4	99.1	77.9
		Right 1	219.8	228.1	186.1	222.9	204.8	225.1	223.9	227.5	227.4	218.5	279.8	219.9	108.4	99.1	77.9
	WB	Through	386.6	342.6	389.9	403.2	295.6	329.2	404.1	386.1	381.1	374.6	507.9	379.5	76.6	98.6	113.8
		Right 3	386.6	342.6	389.9	403.2	295.6	329.2	404.1	386.1	381.1	374.6	507.9	379.5	76.6	98.6	113.8
Bladensburg/Maryland	NEB	Left 2	66.2	64	77.8	65.4	68.6	63.9	66.3	82.2	80.5	80.9	267.7	76.6	0	12.5	28
		Through	66.2	64	77.8	65.4	68.6	63.9	66.3	82.2	80.5	80.9	267.7	76.6	0	12.5	28
		Right 2	66.2	64	77.8	65.4	68.6	63.9	66.3	82.2	80.5	80.9	267.7	76.6	0	12.5	28
	SEB	Left 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.7	41.6	152.8	58	0	13	20.1
		Through	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.7	41.6	152.8	58	0	13	20.1
		Right 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.7	41.6	152.8	58	0	13	20.1
	SWB	Left 2	530.2	522.3	388.7	407	458	570.2	590.7	599.8	626.6	456.1	718.2	542	83.9	159.2	178.8
		Through	530.2	522.3	388.7	407	458	570.2	590.7	599.8	626.6	456.1	718.2	542	83.9	159.2	178.8
		Right 2	530.2	522.3	388.7	407	458	570.2	590.7	599.8	626.6	456.1	718.2	542	83.9	159.2	178.8
	NWB	Left 2	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.2	62.6	60.4	177.7	62.4	16.9	18.5	23.8
		Through	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.2	62.6	60.4	177.7	62.4	16.9	18.5	23.8
		Right 2	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.2	62.6	60.4	177.7	62.4	16.9	18.5	23.8
16th	NB	Left 2	109.2	109	107.9	103	106.6	116.7	104.6	123.3	108.8	97.8	297.6	107.9	18	30.4	38.8
		Through	109.2	109	107.9	103	106.6	116.7	104.6	123.3	108.8	97.8	297.6	107.9	18	30.4	38.8
		Right 2	109.2	109	107.9	103	106.6	116.7	104.6	123.3	108.8	97.8	297.6	107.9	18	30.4	38.8
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.9	0	0	0.1	1.5
		Through	41.2	40.3	39.9	40.6	39.3	41.8	39.5	40.3	40.5	39.8	119.9	40.3	0	5.7	14.4
		Right 2	26.1	25.1	24.8	25.4	24.3	26.7	24.4	24.7	25.3	24.7	104.8	25.1	0	2.6	9.6
	SB	Left 2	19.7	38.1	32.5	38.8	18.5	18.3	19	18.3	17.6	18	63.1	19.2	0	3.2	9.2
		Through	19.7	38.1	32.5	38.8	18.5	18.3	19	18.3	17.6	18	63.1	19.2	0	3.2	9.2
		Right 2	19.7	38.1	32.5	38.8	18.5	18.3	19	18.3	17.6	18	63.1	19.2	0	3.2	9.2
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	64.1	0	0	0.6	3.9
		Through	325.7	222.1	326	347	172	227.6	462.8	279.3	294.7	295.9	665.5	305.7	34.3	75.7	105.6
		Right 2	325.7	222.1	326	347	172	227.6	462.8	279.3	294.7	295.9	665.5	305.7	34.3	75.7	105.6
17th	EB	Left 2	19.2	18.4	20	20	27.2	19.8	38.4	37	19.7	18.5	106.7	20	0	3.5	10.9
		Through	102.2	107.5	103	98.4	104.5	98.1	101.8	105.1	84.9	97.4	229.5	101.6	0	25.9	37.1
		Right 2	102.2	107.5	103	98.4	104.5	98.1	101.8	105.1	84.9	97.4	229.5	101.6	0	25.9	37.1
	SB	Left 2	177.1	145.2	171.5	195.2	189.3	148.7	167.4	192.6	171.4	185	366.9	170.8	39.3	54.5	59.7
		Through	143.6	123.1	106	144.9	122.8	125.9	148.5	124.8	126.6	128.9	367.2	127.3	37.6	42.5	47.5
		Right 2	131.6	111.1	94.1	132.9	110.9	114	136.6	112.8	116	116.9	355.3	115.6	25.6	33.2	45.2
	WB	Left 2	0	17.4	17.9	0	0	0	0	0	0	0	64.7	0	0	0.9	4.8
		Through	752.8	567.3	757	738.7	179.5	488.6	767.1	632.4	579.1	378.9	904.7	713.9	17.8	140.1	234.9
		Right 2	745.1	559.7	749.3	731	171.9	480.9	759.4	624.7	571.4	371.2	897	706.2	0	135.2	233.2
19th	NB	Left 2	211.6	216.5	233.1	208.2	240.6	211.7	213.6	230.4	191	207.9	476.6	213.7	61.2	76.7	72.2
		Through	211.6	216.5	233.1	208.2	240.6	211.7	213.6	230.4	191	207.9	476.6	213.7	61.2	76.7	72.2
		Right 2	211.6	216.5	233.1	208.2	240.6	211.7	213.6	230.4	191	207.9	476.6	213.7	61.2	76.7	72.2
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	20.7	0	0	0.1	1.2
		Through	56.5	56.7	55.8	56.4	56.5	56.2	56.5	56.6	56.2	56.4	110.8	56.4	0	9.5	20.5
	WB	Through	215.7	231.6	262.4	226.7	220.3	248.4	271.7	242.5	234.7	195.4	575	235.5	0	60.3	88.1
		Right 2	215.7	231.6	262.4	226.7	220.3	248.4	271.7	242.5	234.7	195.4	575	235.5	0	60.3	88.1
21st	NB	Left 2	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
		Through	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
		Right 2	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	70.3	0	0	0.3	3.2
		Through	81.1	66.4	63.4	64.3	67.3	63	80.2	65	67.3	64.7	244.4	65.8	0	11.6	26
		Right 2	81.1	66.4	63.4	64.3	67.3	63	80.2	65	67.3	64.7	244.4	65.8	0	11.6	26
	SB	Left 2	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
		Through	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
		Right 2	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	22.2	0	0	0.1	1.2
		Through	123.4	147.6	100.6	114.5	130.4	122.8	132.3	120.2	122.6	104.2	365.8	123.4	0	25.1	45.1
		Right 2	123.4	147.6	100.6	114.5	130.4	122.8	132.3	120.2	122.6	104.2	365.8	123.4	0	25.1	45.1
24th	NB	Left 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
		Right 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
	EB	Through	20.1	16.2	17.3	0	16.5	0	18.3	18.6	0	17.6	152.1	17.5	0	2.2	11.1
	WB	Through	88.3	69.9	99.6	85.4	86.7	86	82.3	79.5	81.3	100.3	366.9	85.7	0	14.6	35.5
26th	EB	Left 2	0	27.4	0	40.2	26.1	27.4	27.3	0	17.1	19	93	24.5	0	2.3	9.1
		Through	19.1	18.9	39.6	20	38.2	17.5	0	18.1	18.3	18.9	149.4	18.9	0	2.8	10.8
	SB	Left 2	59	58.8	59.4	43.9	41.3	56.8	41.1	58.1	57.8	40.8	147.4	57.3	0	11.5	19.1
		Right 2	46.5	46.2	46.8	31.3	28.4	44.2	28.5	45.5	45.2	28.2	134.8	44.7	0	5.6	14.9
	WB	Through	122.2	144.7	119.9	148.6	168.2	164.3	124.6	129.9	119.6	145.5	301.2	143.1	0	28.3	53.2
		Right 2	122.2	144.7	119.9	148.6	168.2	164.3	124.6	129.9	119.6	145.5	301.2	143.1	0	28.3	53.2
Oklahoma	NEB	Left 3	57.9	57.3	40.5	41.3	58.5	76.4	58.6	39.9	39.4	61	150.7	43.6	0	9.8	18.5
		Right 1	38.2	37.5	20.7	21.6	38.8	56.6	38.8	20.2	19.6	41.2	131	23.8	0	4	12.2
	EB	Through	79.7	78.7	79.1	78.9	79.3	79.2	79	79.1	79	79	164	79	0	9.7	23.2
		Right 3	79.7	78.7	79.1	78.9	79.3	79.2	79	79.1	79	79	164	79	0	9.7	23.2
	WB	Left 1	147.4	174.9	143.6	151.1	145.8	153.4	128.6	147.5	148	134.2	514.9	148.2	0	23.4	53.7
		Through	147.4	174.9	143.6	151.1	145.8	153.4	128.6	147.5	148	134.2	514.9	148.2	0	23.4	53.7

Travel Times for Scenario 2a: Existing Conditions AM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.6	324.4	111	327.5	113	320	105	311	115	320.8	109	321.3	145	319.9	131	319.8	148	317	137	315.1	123	319.6	83	211.7	638.8	13.9	21
EB H: Union to Kaiser	2	708.4	27.3	398	28.4	407	27.8	390	27.3	404	28.6	412	27.2	452	29.1	433	28.6	451	28.3	428	27.6	419	28	11.9	17.1	75.7	17.2	28.2
EB H: Kaiser to 3rd	3	593	24.1	421	24.9	428	24.6	404	23.6	414	23.9	421	24.3	458	24.9	444	25.9	457	25.3	442	24.3	426	24.6	14.9	14	105.3	16.4	28.8
EB H: 3rd to 4th	4	426.8	13.7	347	13.2	340	14.2	332	13.4	338	13.8	345	13.3	378	13	337	12.9	351	13.1	346	13.7	352	13.4	6.6	10.1	50.1	21.7	28.7
EB H: 4th to 5th	5	595	36.3	362	36.6	357	37.6	350	33.2	357	35.4	366	35.6	412	33.5	376	37.5	382	43.2	359	39	377	36.8	26.5	14.3	356.2	11	28.4
EB H: 6th to 7th	6	651.5	25.6	347	26.5	344	26.5	331	26.5	342	26.7	356	26.2	409	26.7	367	25.2	375	26.3	349	26.8	366	26.3	14.8	15.8	115.8	16.9	28.2
EB H: 7th to 8th	7	334	24	344	24.9	344	23.1	332	21.5	343	23.4	363	26.2	401	25.4	360	26.8	374	24.1	356	23.9	364	24.4	18	7.9	86.5	9.3	28.7
EB H: 8th to 9th	8	339.8	19.7	339	19.6	342	18.9	341	18.7	341	18.7	353	18.5	396	19.1	351	19.4	374	19.5	351	19.4	352	19.1	17.5	8	88.1	12.1	28.9
EB H: 9th to 10th	9	315.6	9.3	339	9.6	349	9.3	337	9.4	344	9.8	360	9.4	390	9.5	355	9.2	368	9.1	369	9.2	379	9.4	3.5	7.4	46	22.9	29
EB H: 10th to 11th	10	315.6	13.3	352	13.9	355	14.8	337	13.7	359	14	376	16.2	397	13.6	371	14	374	13.7	376	14.5	388	14.2	12.6	7.4	77	15.2	29
EB H: 11th to 12th	11	360.1	15.7	363	15.5	375	16.2	360	15.5	371	14.8	401	16.4	412	16.8	383	16.9	386	16.3	387	15.9	392	16	12.4	8.5	55.9	15.3	28.9
EB H: 12th to 13th	12	557.6	21.3	366	21.5	368	21.4	369	20.5	376	21.3	405	21.4	418	21.7	376	21.6	389	21.8	387	21.1	388	21.4	10.8	13.3	73.3	17.8	28.6
EB H: 13th to 14th	13	781.2	39.1	379	40.3	382	39.1	357	40.2	376	40.5	389	41.9	406	41	374	40.8	393	39.4	385	39	385	40.2	19.3	19.1	135.8	13.2	27.8
EB H: 14th to Starburst (incl ped sig)	14	512.1	22.4	299	21.7	314	23.8	290	21.3	307	22.2	306	21.4	349	22.1	337	22.6	306	21.6	318	23.2	311	22.2	16.9	12.1	72.5	15.7	28.7
WB H	15	6427.2	247.7	774	237.9	693	237.9	687	237.3	690	235.9	695	241	673	233.1	685	238	703	232.8	717	240.1	652	238.2	46.9	157.7	532.2	18.4	27.8
WB H: Starburst to 14th (incl. ped sig)	16	480.6	26.4	1290	24.7	1264	24.3	1261	24	1258	24.7	1219	24.2	1211	25.7	1286	23.1	1249	22.4	1235	25.1	1207	24.5	17.6	11.4	114.8	13.4	28.6
WB H: 14th to 13th	17	799.1	27.1	1159	26.7	1122	27	1112	27.1	1117	25.8	1094	26.6	1093	25.9	1130	26.8	1116	26.4	1089	27.2	1069	26.7	11.3	19	78.8	20.4	28.6
WB H: 13th to 12th	18	554.2	16.3	1167	16.5	1124	16.5	1118	17.5	1113	16.6	1104	16.8	1084	16.2	1113	16.6	1143	16.1	1088	16.6	1057	16.6	5.2	13.3	73.8	22.8	28.4
WB H: 12th to 11th	19	364	18.9	1219	18.7	1168	19	1168	20.1	1166	19.1	1147	20	1148	17.9	1169	20.6	1203	18.2	1136	19.4	1108	19.2	15.1	8.6	72.5	12.9	28.9
WB H: 11th to 10th	20	319.4	13.1	1228	13.1	1186	12.5	1181	13	1192	12.6	1167	13	1175	12.5	1183	12.8	1209	12	1175	13	1116	12.8	10.9	7.5	84.2	17	29.1
WB H: 10th to 9th	21	315.3	12	1232	11.4	1198	10.8	1192	11	1186	10.7	1174	10.7	1173	10.9	1205	11.4	1222	10.8	1190	10.4	1115	11	5.9	7.3	75.2	19.5	29.3
WB H: 9th to 8th	22	333.3	20.6	1253	19.5	1211	17.9	1208	16.8	1211	17	1184	16.8	1184	17.8	1216	18.9	1242	17.8	1215	16.5	1135	18	16.1	7.9	90	12.6	28.7
WB H: 8th to 7th	23	348.1	13.6	1254	13.6	1225	13.4	1236	13.5	1229	13.4	1204	13.6	1214	13.5	1216	13.7	1250	13.9	1237	13.5	1155	13.6	11.6	8.1	90.2	17.5	29.2
WB H: 7th to 6th	24	641	19	1261	19.1	1231	21.5	1244	20.6	1230	20.7	1217	23.1	1193	20.1	1219	19.7	1262	19.3	1242	20.7	1156	20.4	9.1	15.3	92.4	21.4	28.6
WB H: 6th to 4th	25	599.5	21.1	1252	18.6	1219	18.5	1236	19.1	1221	19.5	1204	19.2	1176	17.7	1200	18.9	1253	18.8	1235	19.4	1160	19.1	7.8	14.1	85.6	21.4	28.9
WB H: 4th to 3rd	26	413.5	20.4	1299	19.8	1252	20.4	1265	20.7	1247	19.6	1231	20	1212	18.7	1229	18.3	1263	19.3	1254	20	1189	19.7	11.4	9.8	98.1	14.3	28.7
WB H: 3rd to Kaiser	27	589.2	17.4	1262	17.1	1196	17.1	1183	17.2	1211	17	1204	17.1	1165	16.9	1193	16.9	1202	17	1208	17.3	1144	17.1	4.2	14.2	59.6	23.5	28.3

WB H: Kaiser to Union	28	647.4	18.5	1314	18.3	1235	18.2	1220	18.2	1263	18.3	1230	18.3	1214	18.2	1232	18.3	1267	18.3	1271	18.4	1197	18.3	2.9	15.3	38.8	24.1	28.9
EB Benning	29	4103	152.3	345	151.9	341	153.3	330	149.5	320	151.1	323	149.6	346	149.9	354	151.2	330	149.5	322	151.1	332	150.9	35.7	104.4	450.8	18.5	26.8
EB Benning: Starbust to 16th	30	621.7	23.3	501	23.2	506	23.4	478	23.3	475	22.8	478	22.7	511	23.1	539	23.1	492	22.9	487	22.8	492	23.1	10.2	14.8	86.2	18.4	28.6
WB Benning: 16th to 17th	31	636.9	30.6	531	31.9	547	31	508	30.1	510	29.3	532	29.5	522	29.9	551	30.4	515	30	507	30.1	511	30.3	14	15.2	100.6	14.3	28.5
EB Benning: 17th to 19th	32	827.2	29.6	487	29.8	483	30.4	453	29.4	446	29.2	466	29.1	459	28.8	504	29.4	452	29.2	456	29.7	462	29.5	13.9	20.1	107.6	19.1	28.1
EB Benning: 19th to 21st	33	671.8	23.6	730	22.9	704	22.5	702	22.6	702	23.3	707	22.9	657	23.6	748	23.1	682	23	665	23.1	717	23.1	8.2	16.1	99	19.8	28.5
EB Benning: 21st to 24th	34	583.1	18.3	736	18	704	17.7	725	17.8	717	18.2	705	18	659	18.1	752	18	686	17.6	667	17.9	699	18	6.7	13.9	69.5	22.1	28.7
EB Benning: 24th to 26th	35	513.5	15.2	731	15	685	15	741	15	693	15.2	685	14.7	655	14.7	729	14.9	687	14.8	661	15.2	696	15	4.2	12	53.6	23.3	29.2
EB Benning: 26th to OK	36	237.9	9.1	735	8.6	697	9	753	8.7	696	9.3	699	8.6	662	7.8	744	8.8	698	8.4	672	8.4	708	8.7	6.1	5.6	69.9	18.6	29.2
WB Benning	37	4173.3	177.9	1302	173.9	1305	184.6	1292	182.3	1342	167.4	1272	171.2	1274	190	1319	173.6	1280	173.7	1301	171.8	1272	176.7	40.6	103.9	454.4	16.1	27.4
WB Benning: OK to 26th	38	273.5	10.7	2127	11.3	2167	10.6	2136	11.3	2110	12.1	2132	11.8	2160	10.8	2147	11	2120	10.5	2198	11.3	2100	11.1	8.3	6.4	80.3	16.8	29.1
WB Benning: 26th to 24th	39	496.1	15.5	1947	14.8	1964	15.7	1953	15.3	1936	15.2	1922	16	1980	15.1	1973	15.2	1918	15.2	2001	15.8	1931	15.4	6	11.7	71.4	22	28.9
WB Benning: 24th to 21st	40	583	19.6	1944	21.2	1962	19.2	1969	19.9	1943	20.5	1917	19.8	1972	20	1980	19.7	1909	19.6	2000	19.2	1943	19.9	8.4	13.8	76.3	20	28.8
WB Benning: 21st to 19th	41	598.6	24.6	1949	25.4	1972	26.2	1947	25	1951	24.8	1894	25.7	1966	26.6	1987	25.1	1918	24.8	1976	24.3	1930	25.2	11.6	14.5	124.1	16.2	28.2
WB Benning: 19th to 17th	42	875.1	34.8	1888	32.7	1895	41.1	1892	39.3	1904	31.7	1849	32.8	1924	41.8	1944	33.6	1874	33	1943	32.9	1856	35.4	16.4	21.3	144.4	16.9	28.1
WB Benning: 17th to 16th	43	655.6	30.5	1878	27.5	1877	31.8	1848	30	1899	24.9	1858	26.7	1850	33.2	1912	28.4	1852	28.6	1872	28.7	1852	29.1	15.3	15.9	127.4	15.4	28
WB Benning: 16th to Starburst	44	678.1	38.4	1821	38.1	1826	38.6	1801	38	1869	35.6	1801	36.3	1780	38.5	1843	37.8	1791	38.6	1794	36.7	1783	37.7	21.2	16.5	105.3	12.3	28
EB Corridor	45	9924.3	469.5	85	464.8	85	465.9	81	449	84	462	82	462	97	457	93	463.5	99	448.4	96	455.9	90	459.7	149.4	301	1004.1	14.7	22.5
WB Corridor	46	10604.9	436.6	465	422.6	404	430.2	427	424.9	414	416	389	421.2	414	432.5	391	423.4	434	418.8	433	420.3	384	424.8	88.2	304.3	933	17	23.8

Movement Group Delay for Scenario 2a: Existing Conditions PM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	9.7	A
Kaiser Garage	20	6.5	A
3rd	30	15.2	B
4th	40	12.8	B
6th	60	15.8	B
7th	70	7.3	A
8th	80	16.7	B
9th	90	5.7	A
10th	100	11.2	B
11th	110	7.9	A
12th	120	3.8	A
13th	130	14.4	B
14th	140	25.6	C
Florida	150	4.6	A
Starburst	151	26.3	C
Bladensburg/Maryland	152	10.8	B
16th	160	13	B
17th	170	18.1	B
19th	190	8.4	A
21st	210	8.3	A
24th	240	2.1	A
26th	260	4.5	A
Oklahoma	270	2.8	A

Queue Lengths for Scenario 2a: Existing Conditions PM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	78	82.9	78.8	82.6	84.2	79.1	85.1	97.7	82.5	78.5	191	81.7	17.2	23	28.3
		Right 2	78	82.9	78.8	82.6	84.2	79.1	85.1	97.7	82.5	78.5	191	81.7	17.2	23	28.3
	EB	Through	81	83.4	83.7	71.3	82.5	81.1	83.1	81.2	62.1	78.1	194.4	81.1	0	12.8	27.6
		Right 2	81	83.4	83.7	71.3	82.5	81.1	83.1	81.2	62.1	78.1	194.4	81.1	0	12.8	27.6
	WB	Left 2	59	105.8	63.7	83.1	101.4	79.4	80.4	108.7	63	80.3	172.8	82.9	17.6	22.5	28.8
		Through	60.4	63.4	59.2	61.6	58.9	60	62.2	60.7	61.5	59.9	155.3	61.3	0	8.2	20.8
Kaiser Garage	NB	Left 2	19.8	20.4	20	35.5	38.6	19	18.9	18.6	39.9	41	79.8	19.9	0	5.5	11.5
		Right 2	19.8	20.4	20	35.5	38.6	19	18.9	18.6	39.9	41	79.8	19.9	0	5.5	11.5
	EB	Through	148	152.5	148	151.5	170.9	140.2	180	155.2	169	171.3	355.3	156.8	0	26.6	56
		Right 2	148	152.5	148	151.5	170.9	140.2	180	155.2	169	171.3	355.3	156.8	0	26.6	56
	WB	Left 2	0	0	17.1	14.6	18.5	0	17.5	16.8	18.9	17.1	42.6	16.8	0	1.1	4.8
		Through	18.9	19	19.1	18.5	19.3	19.7	18.9	18.9	18.6	35	81.5	19.1	0	2.8	8.5
3rd	NB	Left 2	81.4	79.9	83.2	81.4	82.5	102.8	145.2	143.4	150.7	172.5	332.9	107.4	18.2	32.1	42.7
		Through	81.4	79.9	83.2	81.4	82.5	102.8	145.2	143.4	150.7	172.5	332.9	107.4	18.2	32.1	42.7
		Right 2	81.4	79.9	83.2	81.4	82.5	102.8	145.2	143.4	150.7	172.5	332.9	107.4	18.2	32.1	42.7
	EB	Left 2	109	126	110.3	111.1	130.3	132.4	147.7	147.6	132.8	135.1	455.6	129.7	18.9	39.7	50.2
		Through	109	126	110.3	111.1	130.3	132.4	147.7	147.6	132.8	135.1	455.6	129.7	18.9	39.7	50.2
		Right 2	109	126	110.3	111.1	130.3	132.4	147.7	147.6	132.8	135.1	455.6	129.7	18.9	39.7	50.2
	SB	Left 2	226.4	308.8	233.1	391.8	167.5	276	217.7	188.2	216.6	318.6	414.4	276	40.5	74.9	90.3
		Through	226.4	308.8	233.1	391.8	167.5	276	217.7	188.2	216.6	318.6	414.4	276	40.5	74.9	90.3
		Right 2	216.9	299.4	223.6	382.4	158	266.6	208.3	178.7	207.1	309.1	405	266.6	31	66.9	89
	WB	Left 2	85.5	123.2	85.5	106.8	84.1	84.5	84.1	84	94.1	86.1	272.6	88.8	0	19.7	33
		Through	85.5	123.2	85.5	106.8	84.1	84.5	84.1	84	94.1	86.1	272.6	88.8	0	19.7	33
		Right 2	85.5	123.2	85.5	106.8	84.1	84.5	84.1	84	94.1	86.1	272.6	88.8	0	19.7	33
4th	EB	Through	125.6	124.3	123.8	110.7	121.6	125.4	141.6	125.2	120.8	124.6	264	124.6	0	23.8	43.4
		Right 2	125.6	124.3	123.8	110.7	121.6	125.4	141.6	125.2	120.8	124.6	264	124.6	0	23.8	43.4
	SB	Left 2	417.8	280.8	214.5	208.7	298.9	423.6	296.9	258.4	253.5	295.3	444.5	304.2	61.7	92.2	100
		Through	417.8	280.8	214.5	208.7	298.9	423.6	296.9	258.4	253.5	295.3	444.5	304.2	61.7	92.2	100
		Right 2	67.3	38.4	35.6	33.5	81.8	45.4	46	46.6	40.1	44.6	441.2	45.1	0	8.9	44.6
	WB	Left 2	59.1	78.1	57.8	63	46.4	59.8	58.5	53.4	61.7	57.8	170.6	60	0	9.1	20.7
		Through	59.1	78.1	57.8	63	46.4	59.8	58.5	53.4	61.7	57.8	170.6	60	0	9.1	20.7
6th	NB	Left 2	346.5	272.3	236.6	234.1	244.5	211.1	238.2	203.4	256.7	257.9	538.4	254.7	60.5	83.4	87.2
		Through	346.5	272.3	236.6	234.1	244.5	211.1	238.2	203.4	256.7	257.9	538.4	254.7	60.5	83.4	87.2
		Right 2	334.9	260.7	225	222.5	232.9	199.5	226.6	191.8	245.1	246.3	526.8	243.1	48.9	74.4	84.8
	EB	Left 2	193.9	187.4	195.8	172.8	195.3	209.4	219.9	196.8	205.5	234.9	484.5	200.6	0	45.1	72.1
		Through	193.9	187.4	195.8	172.8	195.3	209.4	219.9	196.8	205.5	234.9	484.5	200.6	0	45.1	72.1
	WB	Through	79.8	82.1	79.2	82.5	84.5	86.8	73.5	79	83.3	85.3	181.4	82.9	0	15.8	28.7
		Right 2	79.8	82.1	79.2	82.5	84.5	86.8	73.5	79	83.3	85.3	181.4	82.9	0	15.8	28.7
7th	EB	Left 2	128.8	122.8	125.1	145.9	122.2	181.4	153.9	131	143.2	170.4	507	146.1	0	22.2	54.6
		Through	128.8	122.8	125.1	145.9	122.2	181.4	153.9	131	143.2	170.4	507	146.1	0	22.2	54.6
		Right 2	128.8	122.8	125.1	145.9	122.2	181.4	153.9	131	143.2	170.4	507	146.1	0	22.2	54.6
	SB	Left 2	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Through	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Right 2	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
	WB	Left 2	39.5	38.7	34.5	38.9	22.4	37.1	37.9	20.1	21.3	36.8	122.2	37.5	0	4.2	12.2
		Through	39.5	38.7	34.5	38.9	22.4	37.1	37.9	20.1	21.3	36.8	122.2	37.5	0	4.2	12.2
		Right 2	39.5	38.7	34.5	38.9	22.4	37.1	37.9	20.1	21.3	36.8	122.2	37.5	0	4.2	12.2
8th	NB	Left 2	188.4	200.7	218.3	199.6	170.4	195.3	168.5	189.7	183.8	184.9	424	192.6	38.7	58.4	67.7
		Through	188.4	200.7	218.3	199.6	170.4	195.3	168.5	189.7	183.8	184.9	424	192.6	38.7	58.4	67.7
		Right 2	174	186.3	203.9	185.2	155.9	180.9	154.1	175.2	169.4	170.4	409.6	178.2	24.3	48.4	64.1
	EB	Left 2	85.4	77.9	66.8	60.8	61.7	64.3	82.9	77.6	84.6	77.9	246.1	77.9	0	15.4	29.1
		Through	85.4	77.9	66.8	60.8	61.7	64.3	82.9	77.6	84.6	77.9	246.1	77.9	0	15.4	29.1
		Right 2	85.4	77.9	66.8	60.8	61.7	64.3	82.9	77.6	84.6	77.9	246.1	77.9	0	15.4	29.1
	SB	Left 2	314.3	410.6	438	203.9	275.8	210.5	260	227.6	195.8	218.6	488.4	296.1	79.4	97.7	98
		Through	314.3	410.6	438	203.9	275.8	210.5	260	227.6	195.8	218.6	488.4	296.1	79.4	97.7	98
		Right 2	303.2	399.5	427	192.9	264.7	199.5	248.9	216.5	184.8	207.6	477.3	285	68.3	88.2	96.4
	WB	Left 2	41.1	60	43.5	60.8	60	57.5	52.2	41.6	57.4	58.3	128.2	57.6	0	10.1	19.3
		Through	41.1	60	43.5	60.8	60	57.5	52.2	41.6	57.4	58.3	128.2	57.6	0	10.1	19.3
		Right 2	41.1	60	43.5	60.8	60	57.5	52.2	41.6	57.4	58.3	128.2	57.6	0	10.1	19.3
9th	NB	Left 2	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
		Through	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
		Right 2	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
	EB	Left 2	41.8	42	41	39.5	42.4	52.3	44.9	40.9	41.8	41.1	320.8	41.4	0	7.8	20.2
		Through	41.8	42	41	39.5	42.4	52.3	44.9	40.9	41.8	41.1	320.8	41.4	0	7.8	20.2
		Right 2	41.8	42	41	39.5	42.4	52.3	44.9	40.9	41.8	41.1	320.8	41.4	0	7.8	20.2
	SB	Left 2	62.9	57.8	63	62	59.3	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
		Through	62.9	57.8	63	62	59.3	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
		Right 2	62.9	57.8	63	62	59.3	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
	WB	Left 2	38.9	39.8	38.5	39.4	37.9	36.4	37.2	38.5	37.5	37.1	103.1	38.2	0	5.6	12.5
		Through	38.9	39.8	38.5	39.4	37.9	36.4	37.2	38.5	37.5	37.1	103.1	38.2	0	5.6	12.5
		Right 2	38.9	39.8	38.5	39.4	37.9	36.4	37.2	38.5	37.5	37.1	103.1	38.2	0	5.6	12.5
10th	NB	Left 2	63.7	116.3	102.2	110.4	106.3	104.9	127.4	96.6	85.3	85.9	211.6	103.6	17.5	26.1	35
		Right 2	63.7	116.3	102.2	110.4	106.3	104.9	127.4	96.6	85.3	85.9	211.6	103.6	17.5	26.1	35
	EB	Through	60	59.9	56.5	60.2	60	59.4	60.9	58.3	60.1	58.6	189.2	59.6	0	11.8	20.9
		Right 2	60	59.9	56.5	60.2	60	59.4	60.9	58.3	60.1	58.6	189.2	59.6	0	11.8	20.9
	SB	Left 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
		Through	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
		Right 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
	WB	Left 2	87.8	90.6	87.6	104.6	102.2	100.5	103.3	105.3	98.8	85.9	198.8	101.6	0	22.7	35.3
		Through	87.8	90.6	87.6	104.6	102.2	100.5	103.3	105.3	98.8	85.9	198.8	101.6	0	22.7	35.3
11th	NB	Left 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Through	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Right 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
	EB	Left 2	79.6	62.8	63	60.1	84.2	62.9	77.5	60.1	59.5	62.3	328.9	63.6	0	12.8	25.3
		Through	79.6	62.8	63	60.1	84.2	62.9	77.5	60.1	59.5	62.3	328.9	63.6	0	12.8	25.3
		Right 2	79.6	62.8	63	60.1	84.2	62.9	77.5	60.1	59.5	62.3	328.9	63.6	0	12.8	25.3
	SB	Left 2	127.3	126.6	128.9	122.1	131	105.5	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
		Through	127.3	126.6	128.9	122.1	131	105.5	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
		Right 2	127.3	126.6	128.9	122.1	131	105.5	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
	WB	Left 2	39.7	42.4	40	39	41.3	41.1	42.4	42.4	42.1	41.3	128.1	41.3	0	6.6	16.1
		Through	39.7	42.4	40	39	41.3	41.1	42.4	42.4	42.1	41.3	128.1	41.3	0	6.6	16.1
		Right 2	39.7	42.4	40	39	41.3	41.1	42.4	42.4	42.1	41.3	128.1	41.3	0	6.6	16.1
12th	NB	Left 2	41.2	21.8	40.8	38.6	39.3	37.5	37	38.9	37.1	37.9	128	37.9	0	5.7	13.6
		Through	41.2	21.8	40.8	38.6	39.3	37.5	37	38.9	37.1	37.9	128	37.9	0	5.7	13.6
		Right 2	41.2	21.8	40.8	38.6	39.3	37.5	37	38.9	37.1	37.9	128	37.9	0	5.7	13.6
	EB	Left 2	40.1	21.1	39.1	31.7	38	39	39.2	39.9	37.1	38.7	283.8	38.8	0	5.7	15.4
		Through	40.1	21.1	39.1	31.7	38	39	39.2	39.9	37.1	38.7	283.8	38.8	0	5.7	15.4
		Right 2	40.1	21.1	39.1	31.7	38	39	39.2	39.9	37.1	38.7	283.8	38.8	0	5.7	15.4
	SB	Left 2	39.1	38.9	20	36.8	18.8	37.2	18.7	38.9	38	38.2	130.9	37	0	4.6	12.2
		Through	39.1	38.9	20	36.8	18.8	37.2	18.7	38.9	38	38.2	130.9	37	0	4.6	12.2
		Right 2	39.1	38.9	20	36.8	18.8	37.2	18.7	38.9	38	38.2	130.9	37	0	4.6	12.2
	WB	Left 2	20.5	37.6	37.2	41	39.1	20.8	37.2	37.8	37.5	19.8	134.7	37.5	0	4.5	12.4
		Through	20.5	37.6	37.2	41	39.1	20.8	37.2	37.8	37.5	19.8	134.7	37.5	0	4.5	12.4

		Right 2	20.5	37.6	37.2	41	39.1	20.8	37.2	37.8	37.5	19.8	134.7	37.5	0	4.5	12.4
13th	NB	Left 2	131.2	109.4	127.9	128.6	106.6	151.5	126.9	145.1	125.3	148.4	294.7	128.5	19.3	39.3	45.1
		Through	131.2	109.4	127.9	128.6	106.6	151.5	126.9	145.1	125.3	148.4	294.7	128.5	19.3	39.3	45.1
		Right 2	131.2	109.4	127.9	128.6	106.6	151.5	126.9	145.1	125.3	148.4	294.7	128.5	19.3	39.3	45.1
	EB	Left 2	40.2	37.7	40.2	39.9	19.4	40.5	39.4	39	37.7	20.5	190.9	39.1	0	5.3	13.2
		Through	40.2	37.7	40.2	39.9	19.4	40.5	39.4	39	37.7	20.5	190.9	39.1	0	5.3	13.2
		Right 2	40.2	37.7	40.2	39.9	19.4	40.5	39.4	39	37.7	20.5	190.9	39.1	0	5.3	13.2
	SB	Left 2	357.4	278.6	298.5	253.8	383.9	168.5	292.2	301	234.9	255.4	764.5	273.2	39.9	72.9	95.6
		Through	357.4	278.6	298.5	253.8	383.9	168.5	292.2	301	234.9	255.4	764.5	273.2	39.9	72.9	95.6
		Right 2	357.4	278.6	298.5	253.8	383.9	168.5	292.2	301	234.9	255.4	764.5	273.2	39.9	72.9	95.6
	WB	Left 2	108.5	106.3	107.6	106.3	89.5	103.2	126.8	122.9	122.8	105.2	217.8	108.1	0	24.3	39.5
		Through	108.5	106.3	107.6	106.3	89.5	103.2	126.8	122.9	122.8	105.2	217.8	108.1	0	24.3	39.5
		Right 2	108.5	106.3	107.6	106.3	89.5	103.2	126.8	122.9	122.8	105.2	217.8	108.1	0	24.3	39.5
14th	EB	Through	187.5	208.6	227.5	188.4	191.6	475.6	215.7	222.5	250.6	184.8	808.2	233.3	38.6	65.7	95.4
		Right 2	187.5	208.6	227.5	188.4	191.6	475.6	215.7	222.5	250.6	184.8	808.2	233.3	38.6	65.7	95.4
	SB	Left 2	575	482	586.9	489.5	800.9	675.6	511.8	736.3	643.4	470	888.3	641.7	166	227.5	202.3
		Through	575	482	586.9	489.5	800.9	675.6	511.8	736.3	643.4	470	888.3	641.7	166	227.5	202.3
		Right 2	571	477.9	582.9	485.5	796.9	671.6	507.8	732.3	639.4	466	884.2	637.7	162	223.4	202.3
	WB	Left 2	57.1	59.5	63.8	57.3	57.3	65.5	57.3	57.4	57.4	59.7	147.4	57.5	0	13.7	23.3
		Through	57.1	59.5	63.8	57.3	57.3	65.5	57.3	57.4	57.4	59.7	147.4	57.5	0	13.7	23.3
Florida	EB	Through	81.6	97.6	85.6	98.9	55.4	132.6	82.4	78.5	80.2	76	345.5	84.4	0	12.5	34
	WB	Through	0	0	0	0	0	0	0	0	0	0	103	0	0	0.5	4.6
		Right 1	0	0	0	0	0	0	0	0	0	0	80.3	0	0	0.8	5.2
Starburst	NB	Right 1	146.2	128.9	145.9	145.8	146.5	143	187.3	170.3	167.1	194.2	278.8	165.5	62.8	70.2	49.8
		Right 2	146.2	128.9	145.9	145.8	146.5	143	187.3	170.3	167.1	194.2	278.8	165.5	62.8	70.2	49.8
	NEB	Through	253.6	208.4	187.2	188.5	189.8	182.5	319.7	225.5	191.3	163.8	380.9	218.2	80.8	90.1	69.9
		Right 1	253.6	208.4	187.2	188.5	189.8	182.5	319.7	225.5	191.3	163.8	380.9	218.2	80.8	90.1	69.9
	EB	Left 1	212.3	260.2	242.4	237.3	179.2	266.3	256	219.9	210.7	205.4	289.9	233.7	18.7	54.3	74.8
		Through	173.4	216.1	199.7	172	167.6	217.6	216.4	194.2	176.4	184.9	241.3	190.2	0	42.1	64.8
		Right 3	173.4	216.1	199.7	172	167.6	217.6	216.4	194.2	176.4	184.9	241.3	190.2	0	42.1	64.8
	SWB	Through	118.6	119.8	102.2	119.1	122.4	117.9	101.4	125.6	122.9	125.3	258	118.8	36.8	40.4	41.8
		Right 1	118.6	119.8	102.2	119.1	122.4	117.9	101.4	125.6	122.9	125.3	258	118.8	36.8	40.4	41.8
	WB	Through	126.6	128.4	131.1	140.8	125.8	117	124.9	146.1	140.6	135.2	238.7	131.9	16.6	36.5	46.2
		Right 3	126.6	128.4	131.1	140.8	125.8	117	124.9	146.1	140.6	135.2	238.7	131.9	16.6	36.5	46.2
Bladensburg/Maryland	NEB	Left 2	164.7	127.7	146.4	131.9	142.1	128.6	142.9	166.3	150.3	167.1	284.1	145.1	0	26.9	52.3
		Through	164.7	127.7	146.4	131.9	142.1	128.6	142.9	166.3	150.3	167.1	284.1	145.1	0	26.9	52.3
		Right 2	164.7	127.7	146.4	131.9	142.1	128.6	142.9	166.3	150.3	167.1	284.1	145.1	0	26.9	52.3
	SEB	Left 2	86.4	80.5	82.9	70.6	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
		Through	86.4	80.5	82.9	70.6	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
		Right 2	86.4	80.5	82.9	70.6	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
	SWB	Left 2	37.4	38.1	38.3	40.3	40.7	37.3	39.6	39.9	40.8	39.3	130.1	39.5	0	6.1	14.9
		Through	37.4	38.1	38.3	40.3	40.7	37.3	39.6	39.9	40.8	39.3	130.1	39.5	0	6.1	14.9
		Right 2	37.4	38.1	38.3	40.3	40.7	37.3	39.6	39.9	40.8	39.3	130.1	39.5	0	6.1	14.9
	NWB	Left 2	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.3	22.1	28.1
		Through	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.3	22.1	28.1
		Right 2	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.3	22.1	28.1
16th	NB	Left 2	120.8	109	121.5	107	103.1	88	104.4	105.6	105.3	102.3	236.8	105.8	18	29.2	37.1
		Through	120.8	109	121.5	107	103.1	88	104.4	105.6	105.3	102.3	236.8	105.8	18	29.2	37.1
		Right 2	120.8	109	121.5	107	103.1	88	104.4	105.6	105.3	102.3	236.8	105.8	18	29.2	37.1
	EB	Left 2	0	17.1	0	0	0	0	0	0	0	0	60.8	0	0	0.8	4.6
		Through	182.2	147.8	143.5	125.8	130.9	151.6	149.8	148.2	150.1	168.6	344.9	149.3	0	32	54.8
		Right 2	167.2	132.7	128.5	110.8	115.9	136.6	134.7	133.5	135	153.6	329.9	134.2	0	26.3	49.5
	SB	Left 2	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
		Through	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
		Right 2	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
	WB	Left 2	17.9	15.2	14.3	16.3	14.4	0	0	18.1	18.7	17.8	85	17.2	0	1.5	6.9
		Through	123	127.5	104.3	127.6	145.2	131.5	128.2	130.3	124.9	129.1	315.4	127.7	0	28.6	46.8
		Right 2	123	127.5	104.3	127.6	145.2	131.5	128.2	130.3	124.9	129.1	315.4	127.7	0	28.6	46.8
17th	EB	Left 2	28.7	18.9	17.9	17.8	18.6	18.3	18.8	17.8	18.8	19.5	101.7	18.7	0	2.1	8.1
		Through	195.8	177.4	174.4	190.5	189.6	196.2	198.4	183	192.8	236.6	528.2	194.2	0	51.7	72.2
		Right 2	195.8	177.4	174.4	190.5	189.6	196.2	198.4	183	192.8	236.6	528.2	194.2	0	51.7	72.2
	SB	Left 2	324.4	383.2	289.7	363.4	545.9	304.8	369.6	313.2	296.4	304.8	597.7	344.9	84.4	116.4	118.9
		Through	316.2	259.6	251.7	316	328.3	233.7	233.9	278	271.7	253.7	598.1	275.7	40.3	68.1	90.2
		Right 2	304.3	247.6	239.7	304	316.4	221.8	222	266.1	259.8	241.8	586.1	263.8	28.3	58.9	88.1
	WB	Left 2	0	16.8	17.5	37.3	18	18.9	18.3	0	18	0	109.2	17.9	0	1.8	7.6
		Through	140.8	147.1	152.7	149.2	162.1	145.1	191.2	169.2	146	182.8	389.9	157.6	0	35.6	56.6
		Right 2	133.2	139.4	145	141.5	154.4	137.4	183.5	161.5	138.3	175.1	382.2	150	0	31.3	54.3
19th	NB	Left 2	128.5	154.7	150.4	147	164.5	139.8	146.9	138.2	163.3	144.7	354.1	147.2	40.4	53.6	50.5
		Through	128.5	154.7	150.4	147	164.5	139.8	146.9	138.2	163.3	144.7	354.1	147.2	40.4	53.6	50.5
		Right 2	128.5	154.7	150.4	147	164.5	139.8	146.9	138.2	163.3	144.7	354.1	147.2	40.4	53.6	50.5
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41	0	0	0.3	2.6
		Through	124.1	103.2	104.7	105.7	104.7	104.3	104.6	110.8	103.6	105.8	306	105.4	0	28.1	40.8
	WB	Through	64.4	78	63.2	64.4	63.8	79.1	66	77.9	78.2	64.6	155.5	66.3	0	12.7	25.4
		Right 2	64.4	78	63.2	64.4	63.8	79.1	66	77.9	78.2	64.6	155.5	66.3	0	12.7	25.4
21st	NB	Left 2	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.8	24.7	34.8
		Through	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.8	24.7	34.8
		Right 2	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.8	24.7	34.8
	EB	Left 2	0	0	0	0	0	18.5	0	0	0	0	75.5	0	0	0.9	5.3
		Through	105.2	84.1	81.8	102.4	105.7	80.2	66.5	67.9	84.6	117.7	340.9	87	0	19.3	37.7
		Right 2	105.2	84.1	81.8	102.4	105.7	80.2	66.5	67.9	84.6	117.7	340.9	87	0	19.3	37.7
	SB	Left 2	123.9	101.6	99	105.2	106.7	126.8	112.9	123.9	120.9	106	232.7	107.7	18.8	34.1	38.8
		Through	123.9	101.6	99	105.2	106.7	126.8	112.9	123.9	120.9	106	232.7	107.7	18.8	34.1	38.8
		Right 2	123.9	101.6	99	105.2	106.7	126.8	112.9	123.9	120.9	106	232.7	107.7	18.8	34.1	38.8
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	45.3	0	0	0.4	2.8
		Through	84.8	82.1	71.4	84.8	80.7	89.1	95.2	82.4	93.4	96.6	194.4	84.7	0	19.1	31.5
		Right 2	84.8	82.1	71.4	84.8	80.7	89.1	95.2	82.4	93.4	96.6	194.4	84.7	0	19.1	31.5
24th	NB	Left 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
		Right 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
	EB	Through	44.4	21.2	61.7	37.3	20.5	39.6	42.4	19	40.9	40.8	259	40.3	0	5.9	23.9
	WB	Through	49.5	49.6	49.5	49.6	50.1	49.6	49.3	49.3	49.6	50.3	169.6	49.6	0	5.6	16.2
26th	EB	Left 2	0	0	0	0	0	0	0	0	0	0	40.9	0	0	0.2	2.2
		Through	60.2	41.9	44.2	41.5	62.2	36.5	41.7	41.8	41.8	43.9	424.4	42.4	0	7.5	24.2
	SB	Left 2	121.9	122.2	106.5	100.5	105.5	102.6	120.5	123.4	102.2	101.4	257.7	105.7	18.2	32.5	38.6
		Right 2	109.3	109.6	93.9	87.9	92.9	90	107.9	110.8	89.6	88.8	245.1	93.1	0	23.7	35.3
	WB	Through	76.6	65.6	61.3	62.3	56.5	61.1	55.2	55.2	62.6	75.8	196	61.8	0	10.1	22.8
		Right 2	76.6	65.6	61.3	62.3	56.5	61.1	55.2	55.2	62.6	75.8	196	61.8	0	10.1	22.8
Oklahoma	NEB	Left 3	78.8	62.8	83.3	58.9	60.5	79.4	62	44.4	65.1	79.9	192.1	63.4	0	14	25.1
		Right 1	59	43	63.5	39.1	40.7	59.6	42.2	24.7	45.3	60.1	172.3	43.7	0	7.2	18.8
	EB	Through	101.3	100.7	102.1	81.4	99.9	80.2	79.8	79.9	84.5	82.4	265.1	83.2	0	16.7	38.1
		Right 3	101.3	100.7	102.1	81.4	99.9	80.2	79.8	79.9	84.5	82.4	265.1	83.2	0	16.7	38.1
	WB	Left 1	36.6	37.8	37	45.3	36.2	40	41.1	34.6	37.1	37.7	123.8	38.1	0	4.5	13.4
		Through	36.6	37.8	37	45.3	36.2	40	41.1	34.6	37.1	37.7	123.8	38.1	0	4.5	13.4

Travel Times for Scenario 2a: Existing Conditions PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.7	255.7	435	259.1	417	256.8	395	252.6	416	258.4	418	274.3	425	262.8	426	261.9	434	259.5	444	259.4	462	260.1	55	171.2	572.5	17.1	26
EB H: Union to Kaiser	2	708.4	26.6	1143	27.1	1116	26.9	1098	26.8	1094	28.2	1121	26.6	1157	28	1181	27.4	1181	26.3	1160	27.1	1169	27.1	9.6	16.9	75.6	17.8	28.5
EB H: Kaiser to 3rd	3	593.3	22.3	1212	23	1186	22.4	1164	22.2	1166	22.9	1216	23.4	1237	23.5	1271	24.4	1247	23.3	1234	24.9	1237	23.2	11.7	14.2	125.9	17.4	28.5
EB H: 3rd to 4th	4	426.5	16.7	1063	16.5	1046	16.4	1028	16.4	1013	16.4	1057	16.8	1064	17	1111	16.1	1093	16.2	1084	16.9	1078	16.6	10.1	10.2	51.1	17.5	28.5
EB H: 4th to 5th	5	595	26.5	1092	26	1089	27.4	1076	26.3	1056	26.1	1093	27	1116	27	1163	26.6	1127	27.2	1121	27.1	1102	26.7	13.5	14.2	83.4	15.2	28.6
EB H: 6th to 7th	6	651.5	25.8	1077	25.1	1067	25.5	1044	25.2	1038	24.9	1086	26.4	1107	25.5	1143	25.8	1090	26	1086	26.1	1113	25.6	11.8	15.7	106.2	17.4	28.3
EB H: 7th to 8th	7	334	13.2	1029	13.3	1027	12.3	1013	12.5	1018	12.5	1069	12.6	1069	13.8	1101	13	1044	13.8	1062	12.7	1083	13	8.5	7.9	75.2	17.5	28.9
EB H: 8th to 9th	8	339.8	12.8	996	12.7	997	12.3	996	12.2	980	12.6	1032	12.4	1021	12.9	1044	12.2	981	12.4	983	12.4	1039	12.5	8.4	8.1	77	18.5	28.7
EB H: 9th to 10th	9	315.6	10.5	1033	10.2	1042	10.1	1045	9.9	1020	10.3	1049	10.1	1063	10.1	1083	10	1018	10.4	1022	9.9	1054	10.2	4.8	7.4	48.3	21.1	29
EB H: 10th to 11th	10	315.6	11.4	1055	11.1	1057	11.3	1047	10.6	1033	11.4	1069	11.1	1092	10.7	1103	10.5	1043	10.8	1045	10.7	1075	11	6.8	7.5	74	19.6	28.9
EB H: 11th to 12th	11	360.1	11.9	1085	12	1099	11.9	1087	11.5	1057	12.1	1118	12.2	1137	11.8	1123	11.8	1067	11.7	1065	11.8	1110	11.9	6.6	8.5	63.5	20.6	28.8
EB H: 12th to 13th	12	557.6	17.6	1134	17.5	1123	17.2	1140	17.4	1096	17.5	1141	17.9	1164	17.9	1178	17.3	1118	17.5	1103	17.5	1162	17.5	6.9	13.2	79.6	21.7	28.9
EB H: 13th to 14th	13	781.2	31.4	1081	33.6	1077	33.1	1094	32.7	1055	33.2	1121	45.5	1132	33.4	1113	34.4	1059	34.4	1073	31.5	1123	34.4	19.3	19.1	118.3	15.5	27.9
EB H: 14th to Starburst (incl ped sig)	14	512.1	21.1	928	22.5	904	22.8	917	22.1	895	21.6	947	24.3	943	22.8	967	22.1	906	21.6	916	23.1	980	22.4	14	12.3	105.9	15.6	28.3
WB H	15	6427.2	262.5	149	269.1	172	262.6	150	268.9	153	258.6	148	268.5	128	262.5	155	262.2	144	260.9	162	262.7	134	263.9	59.2	184.4	542.4	16.6	23.8
WB H: Starburst to 14th (incl. ped sig)	16	480.6	16.3	382	16.7	420	17.1	413	15.5	404	15.8	403	17.3	397	16.3	422	16.3	406	16.3	426	16.8	406	16.4	8.3	11.3	82.1	20	28.9
WB H: 14th to 13th	17	799.1	37.6	356	37.1	385	38.2	381	38.1	378	37	368	37.5	369	38.7	389	38.1	376	38.7	393	37.5	367	37.9	14.2	19.2	119.2	14.4	28.4
WB H: 13th to 12th	18	554.2	17.2	351	17.8	387	17.4	376	17.8	372	17.7	366	17.4	358	17.4	371	17.4	372	17.5	386	17.6	347	17.5	7	13.4	60.9	21.6	28.2
WB H: 12th to 11th	19	364	13.1	425	13.9	463	12.9	458	12.7	444	13.3	427	13.3	430	13.8	437	13.6	460	13.7	448	12.8	430	13.3	8.2	8.4	88.9	18.7	29.5
WB H: 11th to 10th	20	319.4	20.5	403	19.5	433	20.6	427	20.6	417	20.3	405	21.7	401	21.1	406	21.4	435	21.3	408	18.9	410	20.6	15.5	7.5	88.2	10.6	28.9
WB H: 10th to 9th	21	315.3	16	405	15.7	430	15.9	437	15.5	428	15.9	405	14.9	413	15.7	426	15.9	430	15.5	424	15.2	412	15.6	12.5	7.4	83	13.8	29.1
WB H: 9th to 8th	22	333.3	11.9	410	12.4	431	11.9	434	12.2	432	12.7	406	11.8	411	11.9	423	11.6	428	11.8	436	11.7	424	12	7.9	7.8	75.9	18.9	29
WB H: 8th to 7th	23	348.1	14.6	417	14.7	460	13.6	443	14.1	452	14.2	413	13.7	437	15.4	414	14.1	414	13.6	459	14.2	430	14.2	11	8.2	76.2	16.7	29
WB H: 7th to 6th	24	641	23.7	408	24.1	466	23.6	449	24.3	451	24.3	410	24.6	432	22.7	404	23.3	420	23.8	469	24.3	438	23.9	11	15.1	93.9	18.3	28.9
WB H: 6th to 4th	25	599.5	22.4	381	23.1	441	21.7	423	22.6	435	21.6	388	21.9	397	22.4	385	21.3	392	21.2	447	21.8	416	22	9.4	14.3	75.3	18.6	28.5
WB H: 4th to 3rd	26	413.5	18.8	417	22.3	469	18.4	442	20.5	459	19	401	19.2	419	19.5	405	19.2	409	19.4	457	19.3	434	19.6	11.5	9.8	94	14.4	28.8
WB H: 3rd to Kaiser	27	589.2	16.5	458	16.8	514	16.7	464	16.4	496	16.5	452	16.4	452	16.8	459	16.7	470	16.5	478	16.5	472	16.6	4.4	14.1	62.2	24.2	28.6

WB H: Kaiser to Union	28	647.4	21.9	529	23.1	570	21.9	528	22	531	21.5	498	21.9	516	22	501	21.9	529	21.7	553	22	543	22	6.6	15.1	42.1	20.1	29.2
EB Benning	29	4103	144	1130	142.2	1111	141.8	1101	143	1084	141.4	1154	140.9	1114	143.3	1188	140.4	1127	144.1	1100	144.3	1138	142.5	41.2	101.6	452.8	19.6	27.5
EB Benning: Starbust to 16th	30	621.7	28.5	1402	28	1375	27.5	1376	26.7	1343	26.4	1437	27.4	1365	27.5	1452	27.3	1403	28.4	1398	28.3	1476	27.6	15.6	15.1	129.1	15.4	28.2
WB Benning: 16th to 17th	31	636.9	28.2	1422	29.1	1432	28.8	1411	29.7	1378	29.2	1486	28.7	1406	31.1	1467	28.6	1414	29.5	1410	29.5	1479	29.2	16.1	15.1	155.1	14.9	28.8
EB Benning: 17th to 19th	32	827.2	27.4	1368	26.6	1383	26.8	1338	26.9	1320	27	1402	26.8	1351	26.8	1408	27.4	1335	26.5	1339	26.6	1386	26.9	10.3	19.7	109.1	21	28.7
EB Benning: 19th to 21st	33	671.8	22	1754	21.5	1742	21.3	1708	21.9	1708	21.4	1770	21.1	1709	21.2	1753	21	1723	21.8	1710	22.5	1761	21.6	8.1	16	88.4	21.2	28.6
EB Benning: 21st to 24th	34	583.1	18.3	1758	17.8	1731	17.9	1729	18	1724	18	1778	17.8	1703	18.5	1785	17.4	1730	18.1	1723	18.4	1752	18	7.4	14	71	22.1	28.4
EB Benning: 24th to 26th	35	513.5	16.3	1858	15.7	1806	15.8	1814	15.8	1797	15.8	1860	14.9	1778	15.1	1858	15.4	1793	15.8	1795	15.6	1835	15.6	4.4	12.4	53.8	22.4	28.3
EB Benning: 26th to OK	36	237.9	8.5	1882	8.1	1821	8.3	1831	8.1	1810	8.2	1876	8	1799	7.7	1877	7.7	1813	8.1	1815	8	1852	8.1	5.5	5.5	65.5	20	29.3
WB Benning	37	4173.3	189.9	344	189.5	349	191.5	333	197.3	336	192.7	344	186.9	332	188.7	328	191.2	368	192.3	360	193.5	379	191.4	42.7	112.2	433.1	14.9	25.3
WB Benning: OK to 26th	38	273.5	10.4	798	10.2	821	9.9	787	9.8	830	9.7	830	9.5	831	9.6	852	9.9	881	9.6	902	10.1	894	9.9	6.3	6.4	62.9	18.8	29.2
WB Benning: 26th to 24th	39	496.1	14.6	746	14.9	763	15	727	14.5	754	14.5	750	14.6	773	14.4	780	14.3	795	14.8	821	14.6	819	14.6	5.3	11.7	80.5	23.2	28.8
WB Benning: 24th to 21st	40	583	22.9	755	22.1	786	21.8	747	22.7	772	22.9	760	23.1	787	22.8	790	22.6	819	22.4	826	23	824	22.6	11.4	13.7	81.6	17.6	29.1
WB Benning: 21st to 19th	41	598.6	18.3	757	18.7	779	18.7	752	18.4	777	18.7	758	18.4	787	18.8	793	18.6	811	18.6	829	18.1	822	18.5	6.4	14.2	76.9	22.1	28.8
WB Benning: 19th to 17th	42	875.1	36.7	763	37.8	781	37.5	764	38.5	793	38.1	771	36.7	796	37.9	800	38.7	810	37.6	805	39	824	37.9	14.4	21	124	15.7	28.4
WB Benning: 17th to 16th	43	655.6	32.3	617	33.9	618	30.8	610	34.6	628	33.6	627	33.8	604	31.4	629	33.1	642	32.2	633	32.8	645	32.8	16	16	109.3	13.6	27.9
WB Benning: 16th to Starburst	44	678.1	41	541	40.7	567	43.5	535	41.2	544	40.5	554	39	553	42	572	43.1	565	45.1	545	43.6	584	42	20.3	16.5	97.3	11	28
EB Corridor	45	9924.4	390.1	380	389.2	359	389.9	334	386.2	357	389	373	401.7	380	396.1	385	392.4	387	395.7	385	395.9	390	392.7	93.9	281.7	969	17.2	24
WB Corridor	46	10604.9	492.8	70	489.9	73	493	69	503.6	74	496.4	66	508.5	54	482.3	75	494.2	66	491.4	78	489.2	77	493.7	138.5	349.8	920.2	14.6	20.7

Movement Group Delay for Scenario 2b: 2013 Opening Year No-Build AM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	4.9	A
Kaiser Garage	20	5.1	A
3rd	30	11.6	B
4th	40	8.3	A
6th	60	13.2	B
7th	70	3.7	A
8th	80	15.9	B
9th	90	6.6	A
10th	100	5.6	A
11th	110	12.6	B
12th	120	6.3	A
13th	130	9.7	A
14th	140	15.2	B
Florida	150	2.7	A
Starburst	151	24.9	C
Bladensburg/Maryland	152	30.2	C
16th	160	10.9	B
17th	170	15.1	B
19th	190	12.4	B
21st	210	6.4	A
24th	240	2.4	A
26th	260	3.8	A
Oklahoma	270	5.7	A

Queue Lengths for Scenario 2b: 2013 Opening Year No-Build AM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	38.5	40.5	39.1	35.3	38.1	35.6	37.9	39.3	38.3	19.7	85.6	37.9	0	7.9	13
		Right 2	38.5	40.5	39.1	35.3	38.1	35.6	37.9	39.3	38.3	19.7	85.6	37.9	0	7.9	13
	EB	Through	41.2	41.6	41.4	39.9	41.3	41.5	43.1	55.6	41.8	41.6	150.6	41.6	0	6.2	15.8
		Right 2	41.2	41.6	41.4	39.9	41.3	41.5	43.1	55.6	41.8	41.6	150.6	41.6	0	6.2	15.8
	WB	Left 2	83.8	83.5	80.8	78.3	83	83.5	97.6	83.6	83.2	98.7	164.4	83.6	18.2	26.1	30.2
		Through	0	0	0	0	0	0	0	0	0	0	89.2	0	0	0.8	5.5
Kaiser Garage	NB	Left 2	18.3	18.8	19.2	19.3	19.1	19.4	17.5	18.6	18.9	19.8	65.4	19	0	3	7.9
		Right 2	18.3	18.8	19.2	19.3	19.1	19.4	17.5	18.6	18.9	19.8	65.4	19	0	3	7.9
	EB	Through	78.9	80.8	68	65	79.7	66	82.9	86.3	84.8	82.2	197.8	81.6	0	15.9	29
		Right 2	78.9	80.8	68	65	79.7	66	82.9	86.3	84.8	82.2	197.8	81.6	0	15.9	29
	WB	Left 2	19.4	19	19.8	19	19	19.5	19.2	19.9	38.8	36.9	108.1	19.7	0	3.9	10.3
		Through	58.9	57.4	41.5	45.2	45.6	41.7	41.6	41	57.7	41.8	172.9	42.8	0	6.4	18.2
3rd	NB	Left 2	168.6	101.1	108	167.4	84.4	136.3	117	142.9	165.3	143.3	351.8	128.6	18.9	37.5	47
		Through	168.6	101.1	108	167.4	84.4	136.3	117	142.9	165.3	143.3	351.8	128.6	18.9	37.5	47
		Right 2	168.6	101.1	108	167.4	84.4	136.3	117	142.9	165.3	143.3	351.8	128.6	18.9	37.5	47
	EB	Left 2	81	67.5	80.4	68	68.1	71	69.7	113.3	101	77.2	179.7	72.1	0	15.4	29.6
		Through	81	67.5	80.4	68	68.1	71	69.7	113.3	101	77.2	179.7	72.1	0	15.4	29.6
		Right 2	81	67.5	80.4	68	68.1	71	69.7	113.3	101	77.2	179.7	72.1	0	15.4	29.6
	SB	Left 2	143.8	81.7	81.5	78.9	85.5	80.5	81.8	79.3	77.3	59.8	308.1	81.1	0	16.2	31.2
		Through	143.8	81.7	81.5	78.9	85.5	80.5	81.8	79.3	77.3	59.8	308.1	81.1	0	16.2	31.2
		Right 2	134.3	72.2	72	69.4	76	71	72.3	69.8	67.8	50.3	298.6	71.7	0	11.5	28.5
	WB	Left 2	312.3	244.1	204.8	227.6	338	257.6	293.6	216.9	328	280	447.2	261.4	0	45.8	90.9
		Through	312.3	244.1	204.8	227.6	338	257.6	293.6	216.9	328	280	447.2	261.4	0	45.8	90.9
		Right 2	312.3	244.1	204.8	227.6	338	257.6	293.6	216.9	328	280	447.2	261.4	0	45.8	90.9
4th	EB	Through	41.6	41.8	41.8	42.2	42.1	57.1	61.9	42.3	55.3	41.5	132.5	42.4	0	8.7	17.9
		Right 2	41.6	41.8	41.8	42.2	42.1	57.1	61.9	42.3	55.3	41.5	132.5	42.4	0	8.7	17.9
	SB	Left 2	133.3	121.6	125.6	123.6	151	141.2	126.7	125.5	104.9	147	441.7	128.9	17.8	35.7	48.6
		Through	133.3	121.6	125.6	123.6	151	141.2	126.7	125.5	104.9	147	441.7	128.9	17.8	35.7	48.6
		Right 2	38	44.3	44.7	34	36.6	44.8	42.7	36.7	45.3	33.6	295.9	38.7	0	4.1	16.9
	WB	Left 2	124	60.5	64.7	104.2	123.6	59.8	45.7	61.2	101.4	61.5	505.2	77.5	0	15.7	42.3
		Through	124	60.5	64.7	104.2	123.6	59.8	45.7	61.2	101.4	61.5	505.2	77.5	0	15.7	42.3
6th	NB	Left 2	197.8	192.6	189.5	208.2	189.5	190.9	170.3	155.5	205.6	191.8	402.5	190.5	38.3	57.2	66
		Through	197.8	192.6	189.5	208.2	189.5	190.9	170.3	155.5	205.6	191.8	402.5	190.5	38.3	57.2	66
		Right 2	186.2	181	177.8	196.6	177.9	179.3	158.7	143.9	194	180.2	390.9	178.9	26.7	49.2	62.9
	EB	Left 2	145.1	103.7	124.6	125.8	130.8	126.6	125.6	133.2	122.4	129.4	216.9	127.5	37.9	43.7	45.6
		Through	145.1	103.7	124.6	125.8	130.8	126.6	125.6	133.2	122.4	129.4	216.9	127.5	37.9	43.7	45.6
	WB	Through	104.9	114.4	96.8	180	169.6	129.4	73	91.2	79.9	74.4	649.8	104.2	0	23	56.7
		Right 2	104.9	114.4	96.8	180	169.6	129.4	73	91.2	79.9	74.4	649.8	104.2	0	23	56.7
7th	EB	Left 2	37.5	41.2	41.5	37.8	40.8	40.9	41.4	40.5	39.4	39.5	134.1	40.3	0	5.8	14.3
		Through	37.5	41.2	41.5	37.8	40.8	40.9	41.4	40.5	39.4	39.5	134.1	40.3	0	5.8	14.3
		Right 2	37.5	41.2	41.5	37.8	40.8	40.9	41.4	40.5	39.4	39.5	134.1	40.3	0	5.8	14.3
	SB	Left 2	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
		Through	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
		Right 2	61.3	63.4	76.2	63.1	80.4	63.2	65.4	62.9	67.1	62.3	152.7	64	0	14.8	24.6
	WB	Left 2	41.4	40.2	40.7	40.6	42	37.3	38	39.3	19.3	41.3	251.4	39.7	0	4.7	14.6
		Through	41.4	40.2	40.7	40.6	42	37.3	38	39.3	19.3	41.3	251.4	39.7	0	4.7	14.6
		Right 2	41.4	40.2	40.7	40.6	42	37.3	38	39.3	19.3	41.3	251.4	39.7	0	4.7	14.6
8th	NB	Left 2	123.7	121.8	105.6	82	109.6	119.3	107.5	103.1	101.8	121.3	281.9	106	0	24.9	38.9
		Through	123.7	121.8	105.6	82	109.6	119.3	107.5	103.1	101.8	121.3	281.9	106	0	24.9	38.9
		Right 2	109.3	107.4	91.1	67.6	95.2	104.9	93.1	88.7	87.4	106.8	267.5	91.5	0	17.7	34.5
	EB	Left 2	102.6	102.3	100	84.5	104.6	120.8	101.2	100.5	102.8	87.4	212.3	101.5	0	27.2	36.1
		Through	102.6	102.3	100	84.5	104.6	120.8	101.2	100.5	102.8	87.4	212.3	101.5	0	27.2	36.1
		Right 2	102.6	102.3	100	84.5	104.6	120.8	101.2	100.5	102.8	87.4	212.3	101.5	0	27.2	36.1
	SB	Left 2	102.5	83.3	103.1	85.7	106.8	88.9	100.9	107.3	88.4	86	217.8	100.2	0	20.8	33.6
		Through	102.5	83.3	103.1	85.7	106.8	88.9	100.9	107.3	88.4	86	217.8	100.2	0	20.8	33.6
		Right 2	91.5	72.2	92	74.6	95.7	77.8	89.9	96.2	77.3	74.9	206.8	89.1	0	15.1	30.2
	WB	Left 2	219.6	217.4	192.9	257	199.7	161.4	148.8	172.4	213.7	190.1	369	194.8	23.9	52.9	71.2
		Through	219.6	217.4	192.9	257	199.7	161.4	148.8	172.4	213.7	190.1	369	194.8	23.9	52.9	71.2
		Right 2	219.6	217.4	192.9	257	199.7	161.4	148.8	172.4	213.7	190.1	369	194.8	23.9	52.9	71.2
9th	NB	Left 2	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
		Through	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
		Right 2	59.3	59.1	59.9	58.4	58.8	45.4	38.8	58.6	59	62	135.1	59.1	0	12	20
	EB	Left 2	42	46.3	42	59.7	41.9	42.5	42.3	42	41.7	55.6	104.8	42.4	0	9.5	17.8
		Through	42	46.3	42	59.7	41.9	42.5	42.3	42	41.7	55.6	104.8	42.4	0	9.5	17.8
		Right 2	42	46.3	42	59.7	41.9	42.5	42.3	42	41.7	55.6	104.8	42.4	0	9.5	17.8
	SB	Left 2	36.8	40.4	40.3	40.2	59.1	39.9	37.9	40.3	41.7	40.2	122.3	40.2	0	8.2	15.4
		Through	36.8	40.4	40.3	40.2	59.1	39.9	37.9	40.3	41.7	40.2	122.3	40.2	0	8.2	15.4
		Right 2	36.8	40.4	40.3	40.2	59.1	39.9	37.9	40.3	41.7	40.2	122.3	40.2	0	8.2	15.4
	WB	Left 2	42.2	58.3	40.2	64.1	56.1	42.7	39.1	42.5	57.9	41.2	346.7	42.8	0	9.7	28.6
		Through	42.2	58.3	40.2	64.1	56.1	42.7	39.1	42.5	57.9	41.2	346.7	42.8	0	9.7	28.6
		Right 2	42.2	58.3	40.2	64.1	56.1	42.7	39.1	42.5	57.9	41.2	346.7	42.8	0	9.7	28.6
10th	NB	Left 2	80.8	63.7	65.6	73.4	66.8	45.7	63.3	83	58.3	64.3	171.1	63.8	0	15.8	24.7
		Right 2	80.8	63.7	65.6	73.4	66.8	45.7	63.3	83	58.3	64.3	171.1	63.8	0	15.8	24.7
	EB	Through	20.3	22	18.8	20.1	38	20.6	38.5	19	19.4	22	84	20.3	0	3.9	10.5
		Right 2	20.3	22	18.8	20.1	38	20.6	38.5	19	19.4	22	84	20.3	0	3.9	10.5
	SB	Left 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Through	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Right 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
	WB	Left 2	41.3	41.7	40.1	45.7	44.8	41.6	41.9	42.3	81.8	64.9	213.6	42.3	0	8.7	23
		Through	41.3	41.7	40.1	45.7	44.8	41.6	41.9	42.3	81.8	64.9	213.6	42.3	0	8.7	23
11th	NB	Left 2	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.9	38.1	107.2	40.7	0	7.6	15.3
		Through	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.9	38.1	107.2	40.7	0	7.6	15.3
		Right 2	41.2	40.6	38.3	40.9	40.4	38.1	40.9	40.8	58.9	38.1	107.2	40.7	0	7.6	15.3
	EB	Left 2	60.9	61.9	83	63.7	80.6	84.3	64.5	63.1	65.2	65.9	173.4	65.2	0	14.3	25.4
		Through	60.9	61.9	83	63.7	80.6	84.3	64.5	63.1	65.2	65.9	173.4	65.2	0	14.3	25.4
		Right 2	60.9	61.9	83	63.7	80.6	84.3	64.5	63.1	65.2	65.9	173.4	65.2	0	14.3	25.4
	SB	Left 2	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.3	59.1	144.3	60.9	0	12.7	21.7
		Through	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.3	59.1	144.3	60.9	0	12.7	21.7
		Right 2	59.5	65.4	59.7	63.3	60.3	61.6	57	62.6	60.3	59.1	144.3	60.9	0	12.7	21.7
	WB	Left 2	165.4	185.6	172.3	199.1	195.4	186.6	181.8	197.8	169.6	148.3	386.5	178	0	47.1	64.8
		Through	165.4	185.6	172.3	199.1	195.4	186.6	181.8	197.8	169.6	148.3	386.5	178	0	47.1	64.8
		Right 2	165.4	185.6	172.3	199.1	195.4	186.6	181.8	197.8	169.6	148.3	386.5	178	0	47.1	64.8
12th	NB	Left 2	61.3	61.3	62.7	61.3	60	60	58.9	60.2	58.4	60.3	130.1	60.7	0	13.3	21.3
		Through	61.3	61.3	62.7	61.3	60	60	58.9	60.2	58.4	60.3	130.1	60.7	0	13.3	21.3
		Right 2	61.3	61.3	62.7	61.3	60	60	58.9	60.2	58.4	60.3	130.1	60.7	0	13.3	21.3
	EB	Left 2	54.9	41.1	47.2	57.2	56.7	42.8	42.5	60.1	59.2	42.6	123.2	46	0	8.7	17.9
		Through	54.9	41.1	47.2	57.2	56.7	42.8	42.5	60.1	59.2	42.6	123.2	46	0	8.7	17.9
		Right 2	54.9	41.1	47.2	57.2	56.7	42.8	42.5	60.1	59.2	42.6	123.2	46	0	8.7	17.9
	SB	Left 2	58.5	61.5	58.6	79.4	56.9	59.6	59.5	81	80.3	82.2	151.2	61.5	0	15.2	23.5
		Through	58.5	61.5	58.6	79.4	56.9	59.6	59.5	81	80.3	82.2	151.2	61.5	0	15.2	23.5
		Right 2	58.5	61.5	58.6	79.4	56.9	59.6	59.5	81	80.3	82.2	151.2	61.5	0	15.2	23.5
	WB	Left 2	40.2	39.6	40.5	40.7	40.7	40.3	41.9	40	38.3	39.2	151.9	40.1	0	6.2	15
		Through	40.2	39.6	40.5	40.7	40.7	40.3	41.9	40	38.3	39.2	151.9	40.1	0	6.2	15

		Right 2	40.2	39.6	40.5	40.7	40.7	40.3	41.9	40	38.3	39.2	151.9	40.1	0	6.2	15
13th	NB	Left 2	104.4	130	184.5	125.3	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.5	18.8	37.3	44.4
		Through	104.4	130	184.5	125.3	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.5	18.8	37.3	44.4
		Right 2	104.4	130	184.5	125.3	124.9	124.3	145.1	127.5	141.1	104.2	277.2	125.5	18.8	37.3	44.4
	EB	Left 2	44.2	63.3	41.9	46.6	60.1	58.9	56.6	59.1	42.2	59.5	155.4	56.5	0	8.3	20.2
		Through	44.2	63.3	41.9	46.6	60.1	58.9	56.6	59.1	42.2	59.5	155.4	56.5	0	8.3	20.2
		Right 2	44.2	63.3	41.9	46.6	60.1	58.9	56.6	59.1	42.2	59.5	155.4	56.5	0	8.3	20.2
	SB	Left 2	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	9	16.8
		Through	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	9	16.8
		Right 2	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	9	16.8
	WB	Left 2	107.8	108.4	108.2	122.8	101	86.3	83.4	104.7	107.6	106.1	257.1	104.7	0	20.1	37.7
		Through	107.8	108.4	108.2	122.8	101	86.3	83.4	104.7	107.6	106.1	257.1	104.7	0	20.1	37.7
		Right 2	107.8	108.4	108.2	122.8	101	86.3	83.4	104.7	107.6	106.1	257.1	104.7	0	20.1	37.7
14th	EB	Through	127.8	126.2	128.1	126.8	143	141.2	123.4	127.5	127.7	129	248.4	128.9	19.9	41.1	46.4
		Right 2	127.8	126.2	128.1	126.8	143	141.2	123.4	127.5	127.7	129	248.4	128.9	19.9	41.1	46.4
	SB	Left 2	101	98.7	97	84.8	88.1	85.9	82.6	85.7	102.3	85.2	234.4	86.4	18.5	29.5	33.5
		Through	101	98.7	97	84.8	88.1	85.9	82.6	85.7	102.3	85.2	234.4	86.4	18.5	29.5	33.5
		Right 2	97	94.7	93	80.8	84.1	81.9	78.6	81.7	98.3	81.2	230.4	82.4	0	25	33.2
	WB	Left 2	198.2	191.6	196.2	212.7	203.8	171.6	246.9	173.3	256.4	186.9	293.4	194.5	19.3	54.8	70.6
		Through	198.2	191.6	196.2	212.7	203.8	171.6	246.9	173.3	256.4	186.9	293.4	194.5	19.3	54.8	70.6
Florida	EB	Through	0	0	18.2	0	0	0	0	0	0	0	84.4	0	0	1	5.9
	WB	Through	105.8	100.2	103.6	113.1	109.6	102.4	108.8	96.7	125.9	104.1	301.5	106.6	0	13.9	38.5
		Right 1	113.7	101.8	96.4	119.8	117.5	110.1	116	107.3	130.4	111.7	309.4	113.4	0	13.6	39.5
Starburst	NB	Right 1	104.8	88.8	100.7	103.6	108.6	86	104.3	103.6	107.6	108.2	181.4	104.7	38.7	40.3	34.4
		Right 2	104.8	88.8	100.7	103.6	108.6	86	104.3	103.6	107.6	108.2	181.4	104.7	38.7	40.3	34.4
	NEB	Through	84.2	99.4	84.4	103.7	100.9	81.7	83.5	108.6	77.5	79.7	168.3	84.8	19.4	32.7	31.2
		Right 1	84.2	99.4	84.4	103.7	100.9	81.7	83.5	108.6	77.5	79.7	168.3	84.8	19.4	32.7	31.2
	EB	Left 1	174.7	113.2	126.5	156	71.4	114.6	97.3	66.7	216.6	111.8	268.1	139.6	18.4	38.2	51
		Through	48.9	42.5	43.4	41.4	39.5	36.8	38.4	42.8	39.3	37.9	141.8	40.3	0	6.5	16.6
		Right 3	48.9	42.5	43.4	41.4	39.5	36.8	38.4	42.8	39.3	37.9	141.8	40.3	0	6.5	16.6
	SWB	Through	229.1	218.3	192.4	228.1	228.4	222.6	226.8	191.3	194.9	219.3	278.3	224.3	108.7	98.6	77.7
		Right 1	229.1	218.3	192.4	228.1	228.4	222.6	226.8	191.3	194.9	219.3	278.3	224.3	108.7	98.6	77.7
	WB	Through	394.2	386.3	398.3	420	317.7	354.4	420	387.5	395.9	383.9	515.5	392.2	78.8	105.8	120.6
		Right 3	394.2	386.3	398.3	420	317.7	354.4	420	387.5	395.9	383.9	515.5	392.2	78.8	105.8	120.6
Bladensburg/Maryland	NEB	Left 2	82.5	80.5	83.5	78.9	63.4	85.1	75.6	83.7	83	80.9	260.2	81.3	0	13.9	32.5
		Through	82.5	80.5	83.5	78.9	63.4	85.1	75.6	83.7	83	80.9	260.2	81.3	0	13.9	32.5
		Right 2	82.5	80.5	83.5	78.9	63.4	85.1	75.6	83.7	83	80.9	260.2	81.3	0	13.9	32.5
	SEB	Left 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58	0	12.9	20.1
		Through	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58	0	12.9	20.1
		Right 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58	0	12.9	20.1
	SWB	Left 2	547.7	574.1	565.5	301.4	606.2	592.6	595.4	600.9	512.8	413.2	730.5	564.4	79.1	163.2	191.1
		Through	547.7	574.1	565.5	301.4	606.2	592.6	595.4	600.9	512.8	413.2	730.5	564.4	79.1	163.2	191.1
		Right 2	547.7	574.1	565.5	301.4	606.2	592.6	595.4	600.9	512.8	413.2	730.5	564.4	79.1	163.2	191.1
	NWB	Left 2	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.8	60.4	60.4	177.7	62.4	16.9	18.4	23.8
		Through	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.8	60.4	60.4	177.7	62.4	16.9	18.4	23.8
		Right 2	77.8	79.3	64.2	60.5	79.7	60.5	59.3	62.8	60.4	60.4	177.7	62.4	16.9	18.4	23.8
16th	NB	Left 2	109.2	109	108	103.1	106.6	107.4	104.6	123.3	108.8	97.9	297.6	107.4	17.9	30	38.8
		Through	109.2	109	108	103.1	106.6	107.4	104.6	123.3	108.8	97.9	297.6	107.4	17.9	30	38.8
		Right 2	109.2	109	108	103.1	106.6	107.4	104.6	123.3	108.8	97.9	297.6	107.4	17.9	30	38.8
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.9	0	0	0.1	1.2
		Through	41.1	41.5	36.9	40.3	37.5	42	37.7	37.7	40.3	40.5	111	39.9	0	5.5	14
		Right 2	25.5	26	0	25.2	0	27	20.9	22.6	24.8	25.4	95.9	24.4	0	2.3	9.3
	SB	Left 2	19.7	38.1	28.3	32.4	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.2	9.2
		Through	19.7	38.1	28.3	32.4	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.2	9.2
		Right 2	19.7	38.1	28.3	32.4	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.2	9.2
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	84	0	0	0.6	4.1
		Through	426.5	255.6	345.3	408.4	200.4	217	492.7	427.3	298.5	448.1	649.7	371.6	41.8	92.3	123.6
		Right 2	426.5	255.6	345.3	408.4	200.4	217	492.7	427.3	298.5	448.1	649.7	371.6	41.8	92.3	123.6
17th	EB	Left 2	19.3	18.6	18.5	18.3	33.5	19	39.8	19.2	19	37.8	107.6	20.3	0	3.6	10.8
		Through	85.9	106	108.1	86.7	103	100.8	101.7	105.3	85.5	99.5	183.1	101.7	0	25	35.9
		Right 2	85.9	106	108.1	86.7	103	100.8	101.7	105.3	85.5	99.5	183.1	101.7	0	25	35.9
	SB	Left 2	192.8	187	187.2	167.8	171.3	160.2	164.4	166.7	137.6	163.4	356.4	170.8	38.4	52.8	59.6
		Through	149.1	151.3	125.6	128.3	103.7	125.8	150.7	126.1	128	126.6	356.8	128	38.2	43.5	47.9
		Right 2	137.1	139.4	113.7	116.4	91.8	113.9	138.8	114.1	116.1	114.6	344.8	116.1	26.3	34	45.6
	WB	Left 2	0	0	17.4	0	0	0	0	0	0	14.1	63.8	0	0	0.8	4.6
		Through	738.5	717.7	763.2	702.1	226.7	535.9	764.8	761.9	599.4	334.4	907.5	759.1	18.9	160.3	254.4
		Right 2	730.8	710	755.5	694.4	219.1	528.2	757.1	754.3	591.7	326.7	899.9	751.4	0	155.3	252.6
19th	NB	Left 2	237.4	222	229	208.2	233.9	318.5	226.3	203	208.7	211.1	565	229.4	61.8	80.9	77.6
		Through	237.4	222	229	208.2	233.9	318.5	226.3	203	208.7	211.1	565	229.4	61.8	80.9	77.6
		Right 2	237.4	222	229	208.2	233.9	318.5	226.3	203	208.7	211.1	565	229.4	61.8	80.9	77.6
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	44.2	0	0	0.1	1.5
		Through	56.4	56.4	56	56.5	56.5	56.2	56.6	56.3	56.2	55.8	107.6	56.3	0	9.3	19.9
	WB	Through	223.6	236.7	272.5	233.4	219.1	272.8	261.3	253.8	201.7	214.8	607.1	242	0	60.1	89.1
		Right 2	223.6	236.7	272.5	233.4	219.1	272.8	261.3	253.8	201.7	214.8	607.1	242	0	60.1	89.1
21st	NB	Left 2	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
		Through	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
		Right 2	61.1	59	61.7	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14	20.6
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	59.3	0	0	0.3	2.6
		Through	64.4	66.6	64	63.8	81.4	62.5	83.5	67.3	79.8	64.1	196.3	66.6	0	11.7	25.8
		Right 2	64.4	66.6	64	63.8	81.4	62.5	83.5	67.3	79.8	64.1	196.3	66.6	0	11.7	25.8
	SB	Left 2	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
		Through	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
		Right 2	42	60.4	42	41	41.4	41	42.2	41.7	40.5	61.4	109.1	42.3	0	11.6	17.7
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	41	0	0	0.2	2.2
		Through	127.7	134.6	106.3	111.3	130.7	140.5	111.8	112.4	107.3	118.2	494.9	123.7	0	25.5	46.6
		Right 2	127.7	134.6	106.3	111.3	130.7	140.5	111.8	112.4	107.3	118.2	494.9	123.7	0	25.5	46.6
24th	NB	Left 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
		Right 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
	EB	Through	18.8	0	18	0	0	15.1	18.5	0	16.1	17.4	117.4	17.2	0	2.1	10.5
	WB	Through	93.6	78.6	99.2	83	70.1	97.8	86.1	79.8	70.9	105.5	300.8	86.3	0	14.6	34.6
26th	EB	Left 2	0	17.7	0	32.3	38.5	44.6	29.8	24.9	0	0	110.1	27.1	0	2.7	10.5
		Through	37.3	18.6	20.3	19.4	39.3	17.6	17.6	18.1	19	19.2	136.3	19.1	0	2.9	11.3
	SB	Left 2	59	58.8	59.4	43.8	41.4	59.3	41.1	57.9	57.8	40.8	147.4	57.6	0	11.8	19.3
		Right 2	46.5	46.2	46.8	31.3	28.7	46.7	28.5	45.3	45.2	28.2	134.8	45	0	5.8	15.1
	WB	Through	139.9	115.7	127.7	166.8	169.6	163.6	121	142.6	119.5	172.8	301.9	143.7	0	28.5	53.7
		Right 2	139.9	115.7	127.7	166.8	169.6	163.6	121	142.6	119.5	172.8	301.9	143.7	0	28.5	53.7
Oklahoma	NEB	Left 3	57.9	57.3	40.4	41.3	58.5	76.6	58.6	39.9	39.4	61	150.7	43.6	0	9.8	18.5
		Right 1	38.2	37.5	20.6	21.6	38.8	56.9	38.8	20.2	19.6	41.2	131	23.8	0	3.9	12.2
	EB	Through	79	79.1	79.1	78.9	78.8	78.9	79	79.1	79.1	79	155.5	79.1	0	9.6	23.3
		Right 3	79	79.1	79.1	78.9	78.8	78.9	79	79.1	79.1	79	155.5	79.1	0	9.6	23.3
	WB	Left 1	166.4	165	150.9	167.8	144.7	168.8	124	137.7	151.9	126.6	448	149.4	0	23.3	52.5
		Through	166.4	165	150.9	167.8	144.7	168.8	124	137.7	151.9	126.6	448	149.4	0	23.3	52.5

Travel Times for General Traffic for Scenario 2b: 2013 Opening Year No-Build AM

Name	Travel Time Section	Distance (ft)	Run 1		2		3		4		5		6		7		8		9		10		Travel Time				Average Speed (mph)	85th Percentile (mph)
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
EB H	1	6525.6	318.5	118	319.6	117	327	110	318.2	119	327.4	111	319.4	147	316.3	135	320.3	150	320	139	311.3	127	319.6	80.7	216.3	618.2	13.9	20.6
EB H: Union to Kaiser	2	708.4	27.7	406	28.1	413	27.9	398	26.9	408	27.8	420	26.3	455	29.2	437	28.5	455	28.4	437	28.1	425	27.9	11.7	17.1	75	17.3	28.3
EB H: Kaiser to 3rd	3	593.2	22	419	22.3	420	22.9	399	22.1	407	22.8	416	22.2	450	23.7	435	25.7	450	24.8	438	22.9	422	23.2	13.6	14	137.7	17.4	29
EB H: 3rd to 4th	4	426.6	13.2	356	13.6	351	13.9	340	12.7	344	13.2	353	13.4	382	13.7	343	13.3	354	13.2	354	12.9	357	13.3	6.4	10.1	50.7	21.9	28.8
EB H: 4th to 5th	5	595	38.9	369	34.4	362	38.5	364	38.3	362	42.4	376	34.7	412	34.6	379	38.4	387	40.3	367	36.6	378	37.7	27.3	14.2	292.1	10.8	28.5
EB H: 6th to 7th	6	651.5	26.3	352	26.8	350	26.6	342	26.4	343	26.6	364	26.1	409	26	373	25.6	379	26.6	357	26	372	26.3	14.9	15.8	118.4	16.9	28
EB H: 7th to 8th	7	334	25.4	348	23.4	348	25.4	339	22.6	347	24.3	372	24.2	404	23.9	367	26.3	379	24.4	363	24.2	373	24.4	17.8	7.9	76.6	9.3	28.9
EB H: 8th to 9th	8	339.8	20.2	343	19.9	349	19.1	346	19.7	345	18.5	365	18.9	400	18.7	364	19.1	377	19.5	355	19.3	360	19.3	17.4	8	95.1	12	29
EB H: 9th to 10th	9	315.6	9.5	345	9.9	359	9.1	344	9.6	346	9.5	366	9.4	390	9.7	364	9.1	372	9.3	373	9.4	386	9.4	3.7	7.4	45.8	22.9	29
EB H: 10th to 11th	10	315.6	12.8	358	13.5	361	15.7	345	13.3	362	14.4	385	15.5	398	13.8	378	13.7	379	13.9	381	14.1	397	14.1	12.7	7.4	77.2	15.3	29.1
EB H: 11th to 12th	11	360.1	16.1	371	16	380	16.4	367	16.8	376	15.7	411	16.8	414	16	388	17.2	389	16.8	392	16.3	401	16.4	12.8	8.5	90.3	15	28.9
EB H: 12th to 13th	12	557.6	22	371	21.8	373	21	376	21.5	382	21.2	412	21.9	421	21.9	383	21.6	395	21.9	396	21.6	398	21.6	11	13.3	74.6	17.6	28.5
EB H: 13th to 14th	13	781.2	39.1	388	40	385	40.5	363	40.2	382	41.1	396	41.9	411	39.9	380	41.9	398	41.2	391	39.5	393	40.5	19	19.1	124.6	13.2	27.8
EB H: 14th to Starburst (incl ped sig)	14	512.1	22.5	309	21.5	319	23.2	295	21.9	309	22.7	309	21.7	349	21.7	341	22	313	23.1	324	21.8	317	22.2	16.8	12.1	72.4	15.7	28.8
WB H	15	6427.2	242.3	776	242.4	709	237.1	700	246	705	248.3	697	235.4	689	234.9	691	241.1	711	243.6	713	237.2	651	240.9	47.4	161.1	534.2	18.2	27.2
WB H: Starburst to 14th (incl. ped sig)	16	480.6	25.2	1311	25	1267	24.8	1271	25	1263	26.4	1226	24	1220	26.1	1282	23.7	1254	26.5	1241	24.9	1212	25.2	18.3	11.5	113.2	13	28.5
WB H: 14th to 13th	17	799.1	27.1	1185	26.9	1124	27.5	1112	27.4	1121	26.4	1105	26.5	1095	26.5	1135	27	1125	27.6	1097	27.6	1081	27.1	11.6	19.4	79.3	20.1	28.1
WB H: 13th to 12th	18	554.2	16.7	1182	16.6	1130	16.8	1119	16.8	1123	16.5	1106	16.7	1089	16.5	1126	16.5	1147	16.5	1092	16.3	1075	16.6	5.2	13.1	70.1	22.8	28.8
WB H: 12th to 11th	19	364	18.7	1231	19.9	1174	19.4	1174	20.5	1182	20.2	1157	19.9	1148	19.7	1176	20.9	1212	18.9	1135	18.4	1123	19.7	15.4	8.7	77.6	12.6	28.5
WB H: 11th to 10th	20	319.4	12.3	1230	12.7	1198	12.4	1185	13.2	1204	12.8	1183	12.7	1174	12.5	1186	13	1218	12.6	1171	12.8	1129	12.7	10.6	7.4	84.8	17.1	29.3
WB H: 10th to 9th	21	315.3	11.3	1235	11.3	1209	11.1	1193	12.2	1204	11.7	1196	10.8	1179	10.7	1208	11.7	1229	11.8	1189	10.8	1132	11.3	6.7	7.4	83.8	19	29
WB H: 9th to 8th	22	333.3	19.1	1253	19.4	1214	18.1	1211	20.2	1231	19.2	1201	17	1189	16.6	1223	18.4	1256	19.1	1217	17.2	1154	18.5	17	7.9	103.2	12.3	28.9
WB H: 8th to 7th	23	348.1	14	1250	13.6	1229	13.4	1243	13.5	1248	13.8	1219	13.4	1222	13.6	1225	13.5	1255	13.5	1240	13.6	1177	13.6	11.6	8.3	100.6	17.5	28.5
WB H: 7th to 6th	24	641	20.4	1257	21.1	1239	20	1254	21.5	1267	21.9	1235	20.7	1230	19.5	1231	20	1268	19.8	1246	19.4	1178	20.4	9.3	15.3	91.1	21.4	28.5
WB H: 6th to 4th	25	599.5	20.3	1252	19.2	1226	19	1246	20.3	1251	20.3	1214	19	1218	18.5	1210	19.8	1263	20.8	1237	19.2	1176	19.6	8.7	14.6	95.6	20.9	28
WB H: 4th to 3rd	26	413.5	20	1280	20.1	1272	19	1276	20.3	1271	21.4	1234	19.7	1241	19.6	1234	19.3	1261	19.9	1258	20.5	1193	20	11.8	9.9	91.2	14.1	28.4
WB H: 3rd to Kaiser	27	589.2	17.4	1254	17.2	1221	17	1193	17.2	1235	17.4	1198	16.9	1195	17.1	1194	16.9	1209	17.4	1205	17.1	1143	17.2	4.4	13.9	60.1	23.4	28.9

WB H: Kaiser to Union	28	647.4	18.4	1320	18.3	1256	18.1	1234	18.2	1283	18.3	1230	18.3	1230	18.4	1234	18.2	1276	18.3	1264	18.3	1199	18.3	2.9	15.3	38.1	24.1	28.8
EB Benning	29	4103	150.7	352	152	347	153.4	334	150.1	328	150.9	325	149.6	349	149.3	360	150.2	335	149	328	149.7	338	150.5	34.9	103.8	433.3	18.6	27
EB Benning: Starbust to 16th	30	621.7	23.3	507	23.3	518	22.7	487	23	486	22.3	485	22.7	525	22.8	545	22.9	503	22.8	491	22.7	500	22.8	10.1	14.7	100.7	18.6	28.8
WB Benning: 16th to 17th	31	636.9	29.8	531	31.1	554	31.4	515	29.7	521	29.6	529	29.3	529	28.9	559	30.3	515	29.2	514	30.5	518	30	13.4	15	91.9	14.5	28.9
EB Benning: 17th to 19th	32	827.2	29.3	488	29.2	483	30	454	29.3	453	29.4	465	28.8	463	28.4	507	29.2	454	28.8	463	29	466	29.2	13.3	19.8	111.8	19.3	28.4
EB Benning: 19th to 21st	33	671.8	23.4	733	23.1	707	22.6	714	22.5	706	23.7	711	23	664	24	749	22.9	685	23.1	667	22.6	713	23.1	8.3	15.9	89	19.8	28.8
EB Benning: 21st to 24th	34	583.1	18	739	17.9	703	17.9	737	17.9	719	18.1	713	18	671	18	753	17.9	691	17.6	672	17.8	701	17.9	6.7	13.8	67.4	22.2	28.7
EB Benning: 24th to 26th	35	513.5	15.3	733	15	688	15.2	752	15	703	15.4	684	14.7	664	14.9	732	14.8	692	15.1	664	14.9	700	15	4.1	12.1	51.6	23.3	29
EB Benning: 26th to OK	36	237.9	8.8	742	8.7	700	9.2	764	8.8	707	9.1	702	8.6	667	8.4	744	8.5	703	8.5	675	8.6	715	8.7	6.1	5.6	73.2	18.6	29.2
WB Benning	37	4173.3	180.3	1315	174.2	1321	187.5	1311	182.2	1359	168.5	1285	171.6	1286	189.7	1339	182.7	1294	174.7	1313	178.4	1298	179.1	41.6	104.9	458.9	15.9	27.1
WB Benning: OK to 26th	38	273.5	11.1	2138	10.5	2183	11.1	2152	11.8	2124	11.9	2129	11.6	2168	10.4	2162	11.3	2141	10.5	2210	11.4	2121	11.2	8.3	6.4	68.7	16.6	29.1
WB Benning: 26th to 24th	39	496.1	15.5	1959	15	1983	15.8	1977	15.3	1952	14.8	1924	15.7	1996	15.2	1990	15.3	1936	14.9	2016	15.9	1952	15.3	5.9	11.8	69.3	22.1	28.8
WB Benning: 24th to 21st	40	583	19.6	1954	20.6	1980	19.6	1986	19.7	1962	20.6	1931	20.7	1989	19.7	1996	19.6	1927	19.5	2009	19.7	1965	19.9	8.5	13.8	83.4	20	28.8
WB Benning: 21st to 19th	41	598.6	24.6	1970	25.7	1979	26.6	1969	24.6	1963	24.6	1913	25.8	1975	26.6	2002	25.8	1932	23.9	2000	24.6	1953	25.3	11.5	14.3	95.7	16.1	28.5
WB Benning: 19th to 17th	42	875.1	34	1902	33.4	1922	41.3	1911	37.5	1948	31.9	1864	33.1	1927	39.5	1971	37.4	1889	35.5	1962	34.4	1884	35.8	17	21.3	156.7	16.7	28
WB Benning: 17th to 16th	43	655.6	32.8	1899	28.5	1887	32.4	1862	31.2	1919	25.8	1876	26.5	1859	33.8	1920	31.8	1857	29.5	1888	30.7	1873	30.3	16.8	15.8	130.6	14.8	28.3
WB Benning: 16th to Starburst	44	678.1	38.6	1845	37.9	1840	38.9	1814	38.2	1886	36.2	1817	36.8	1791	40.5	1869	38.9	1798	37.8	1809	38.2	1808	38.2	21.2	16.3	91.2	12.1	28.4
EB Corridor	45	9924.3	466.3	87	459	88	471.1	82	455.6	89	468.8	82	457.8	99	455.4	96	452.7	103	454	98	448.1	91	458.5	145.6	307.7	1024.3	14.8	22
WB Corridor	46	10604.9	436.2	467	428.8	415	434.4	434	439.9	426	428.3	392	415.5	420	435.8	399	435.4	436	434.2	431	425.8	386	431.6	88.6	317.9	979.1	16.8	22.7

Movement Group Delay for Scenario 2b: 2013 Opening Year No-Build PM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	10.2	B
Kaiser Garage	20	6.6	A
3rd	30	14.2	B
4th	40	12.8	B
6th	60	16.1	B
7th	70	7.2	A
8th	80	16.8	B
9th	90	5.6	A
10th	100	11.2	B
11th	110	8	A
12th	120	3.8	A
13th	130	14.5	B
14th	140	26.1	C
Florida	150	4.5	A
Starburst	151	20.8	C
Bladensburg/Maryland	152	10.9	B
16th	160	13.6	B
17th	170	18.2	B
19th	190	8.4	A
21st	210	8.2	A
24th	240	2.1	A
26th	260	4.5	A
Oklahoma	270	2.8	A

Queue Lengths for Scenario 2b: 2013 Opening Year No-Build PM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	79.8	83.7	83.1	84	80.7	80.3	102.4	80.4	81.7	78.3	216.6	82.8	17.2	23.1	29.1
		Right 2	79.8	83.7	83.1	84	80.7	80.3	102.4	80.4	81.7	78.3	216.6	82.8	17.2	23.1	29.1
	EB	Through	73	82.5	76	65.2	84.7	66.6	86.1	84.3	65	65.9	232	80.9	0	13.1	27.6
		Right 2	73	82.5	76	65.2	84.7	66.6	86.1	84.3	65	65.9	232	80.9	0	13.1	27.6
	WB	Left 2	62.3	81.6	41.5	161.2	104.3	98.1	62.6	207.7	82	61.4	342.1	104.7	18	28.6	38.9
		Through	58.6	68.9	62	60.4	60.4	59.8	61.7	62.1	61.1	57.1	148.5	61.6	0	8.3	21
Kaiser Garage	NB	Left 2	19.8	20.4	20	35.5	38.6	19	18.9	18.6	39.9	41	79.8	19.9	0	5.5	11.5
		Right 2	19.8	20.4	20	35.5	38.6	19	18.9	18.6	39.9	41	79.8	19.9	0	5.5	11.5
	EB	Through	156.9	171.7	162.2	169.1	171.8	150.2	186.1	177.5	147.4	181	379	168.7	0	27.9	58.3
		Right 2	156.9	171.7	162.2	169.1	171.8	150.2	186.1	177.5	147.4	181	379	168.7	0	27.9	58.3
	WB	Left 2	0	0	18.3	16.8	17.7	17.2	0	0	18.9	18.8	61.9	17.3	0	1.2	5
		Through	18.9	19	19.1	18.4	19.2	19.7	18.8	19	18.8	19.2	86.1	19	0	2.8	8.4
3rd	NB	Left 2	81.4	82.1	81.3	81.4	82.5	102.8	145.9	144.9	150.7	149.5	330.1	108.6	18.2	31.9	42.6
		Through	81.4	82.1	81.3	81.4	82.5	102.8	145.9	144.9	150.7	149.5	330.1	108.6	18.2	31.9	42.6
		Right 2	81.4	82.1	81.3	81.4	82.5	102.8	145.9	144.9	150.7	149.5	330.1	108.6	18.2	31.9	42.6
	EB	Left 2	129.5	129.9	117.2	117.7	135.6	150.6	131.8	157.2	109.3	138.5	418.4	131.9	0	35.1	50.1
		Through	129.5	129.9	117.2	117.7	135.6	150.6	131.8	157.2	109.3	138.5	418.4	131.9	0	35.1	50.1
		Right 2	129.5	129.9	117.2	117.7	135.6	150.6	131.8	157.2	109.3	138.5	418.4	131.9	0	35.1	50.1
	SB	Left 2	227.2	307	256.4	391.8	167.2	214.4	217.5	163.8	217.1	227.4	414.4	259.5	40.5	72.2	86.2
		Through	227.2	307	256.4	391.8	167.2	214.4	217.5	163.8	217.1	227.4	414.4	259.5	40.5	72.2	86.2
		Right 2	217.7	297.5	246.9	382.4	157.7	205	208	154.3	207.7	217.9	405	250	31	64.2	84.8
	WB	Left 2	85.7	89.1	86.7	102.9	85.1	84.7	87.1	86.8	90.3	87	372.8	87.8	0	19.5	32.9
		Through	85.7	89.1	86.7	102.9	85.1	84.7	87.1	86.8	90.3	87	372.8	87.8	0	19.5	32.9
		Right 2	85.7	89.1	86.7	102.9	85.1	84.7	87.1	86.8	90.3	87	372.8	87.8	0	19.5	32.9
4th	EB	Through	108.4	125.2	111.6	106.3	127	123.1	145.6	131.5	137.7	131	278.6	125.7	0	24.4	45.3
		Right 2	108.4	125.2	111.6	106.3	127	123.1	145.6	131.5	137.7	131	278.6	125.7	0	24.4	45.3
	SB	Left 2	416.5	280.8	214.5	219	298.9	424.1	296.3	258.7	257.4	295.4	461.7	304.7	61.4	92.1	100.2
		Through	416.5	280.8	214.5	219	298.9	424.1	296.3	258.7	257.4	295.4	461.7	304.7	61.4	92.1	100.2
		Right 2	67.3	38.4	34.5	33.6	81.8	45.4	46	46.7	40.3	44.6	440.9	45	0	9	44.7
	WB	Left 2	42.1	62.8	60.3	62.6	58.4	59.3	43	42.3	59.2	60.3	216.7	59.2	0	8.9	20.5
		Through	42.1	62.8	60.3	62.6	58.4	59.3	43	42.3	59.2	60.3	216.7	59.2	0	8.9	20.5
6th	NB	Left 2	348	272.3	236.3	234.1	244.6	210	238.2	203.4	256.7	257.9	538.1	254.6	60.5	83.4	87.2
		Through	348	272.3	236.3	234.1	244.6	210	238.2	203.4	256.7	257.9	538.1	254.6	60.5	83.4	87.2
		Right 2	336.4	260.7	224.7	222.5	233	198.3	226.6	191.8	245.1	246.3	526.5	243	48.9	74.4	84.7
	EB	Left 2	213.7	210.3	238.8	196.3	186.8	257	210.8	218.9	215.8	221.1	611.7	215.2	0	48.2	75.6
		Through	213.7	210.3	238.8	196.3	186.8	257	210.8	218.9	215.8	221.1	611.7	215.2	0	48.2	75.6
	WB	Through	82.3	81.7	81.7	82.9	82.8	84.5	70.6	92.9	83.8	83.4	176.6	83.1	0	16	29.7
		Right 2	82.3	81.7	81.7	82.9	82.8	84.5	70.6	92.9	83.8	83.4	176.6	83.1	0	16	29.7
7th	EB	Left 2	129.7	112.9	134.7	158.5	122.7	125.7	128.1	125.8	171.7	161.5	450.3	138.2	0	21.7	52.1
		Through	129.7	112.9	134.7	158.5	122.7	125.7	128.1	125.8	171.7	161.5	450.3	138.2	0	21.7	52.1
		Right 2	129.7	112.9	134.7	158.5	122.7	125.7	128.1	125.8	171.7	161.5	450.3	138.2	0	21.7	52.1
	SB	Left 2	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Through	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Right 2	62.6	83.1	85.5	82.3	67.5	104.1	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
	WB	Left 2	39.9	37.7	21.5	39.8	37.6	39.6	21.4	37.5	19.6	37.4	112.3	37.5	0	4.1	11.7
		Through	39.9	37.7	21.5	39.8	37.6	39.6	21.4	37.5	19.6	37.4	112.3	37.5	0	4.1	11.7
		Right 2	39.9	37.7	21.5	39.8	37.6	39.6	21.4	37.5	19.6	37.4	112.3	37.5	0	4.1	11.7
8th	NB	Left 2	185.3	183.4	278.7	198.7	170.4	173	168.8	188.5	152.2	253.5	553.2	195.3	38.9	59.8	71.6
		Through	185.3	183.4	278.7	198.7	170.4	173	168.8	188.5	152.2	253.5	553.2	195.3	38.9	59.8	71.6
		Right 2	170.9	169	264.3	184.2	155.9	158.6	154.4	174	137.8	239.1	538.8	180.9	24.4	49.8	68
	EB	Left 2	79	79	83.4	62.2	83.6	95.4	79	64.5	88.1	97.9	349.7	81.3	0	16.7	30.4
		Through	79	79	83.4	62.2	83.6	95.4	79	64.5	88.1	97.9	349.7	81.3	0	16.7	30.4
		Right 2	79	79	83.4	62.2	83.6	95.4	79	64.5	88.1	97.9	349.7	81.3	0	16.7	30.4
	SB	Left 2	313.5	410.6	436	196	278.8	198.6	238.5	223.4	192.9	210.2	488.4	286.9	68	95.6	97.2
		Through	313.5	410.6	436	196	278.8	198.6	238.5	223.4	192.9	210.2	488.4	286.9	68	95.6	97.2
		Right 2	302.4	399.5	424.9	184.9	267.7	187.5	227.4	212.3	181.9	199.1	477.3	275.8	57	86.2	95.5
	WB	Left 2	42.4	59.1	58.4	64.2	60.1	58.3	42.4	59	57.4	46	129.5	58.4	0	10.4	19.7
		Through	42.4	59.1	58.4	64.2	60.1	58.3	42.4	59	57.4	46	129.5	58.4	0	10.4	19.7
		Right 2	42.4	59.1	58.4	64.2	60.1	58.3	42.4	59	57.4	46	129.5	58.4	0	10.4	19.7
9th	NB	Left 2	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
		Through	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
		Right 2	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
	EB	Left 2	40.5	41.4	39.7	41.1	42.9	40.9	40.7	40.5	41.3	40.6	223.2	41	0	7.1	16.5
		Through	40.5	41.4	39.7	41.1	42.9	40.9	40.7	40.5	41.3	40.6	223.2	41	0	7.1	16.5
		Right 2	40.5	41.4	39.7	41.1	42.9	40.9	40.7	40.5	41.3	40.6	223.2	41	0	7.1	16.5
	SB	Left 2	62.9	57.8	63	62.2	59.4	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
		Through	62.9	57.8	63	62.2	59.4	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
		Right 2	62.9	57.8	63	62.2	59.4	60.7	59.9	58.8	60.4	63	128.8	61	0	13	20.9
	WB	Left 2	37.5	41.2	38.6	19.8	20.6	35.6	36.6	39.2	37.9	38.7	119.9	37.8	0	5.5	12.5
		Through	37.5	41.2	38.6	19.8	20.6	35.6	36.6	39.2	37.9	38.7	119.9	37.8	0	5.5	12.5
		Right 2	37.5	41.2	38.6	19.8	20.6	35.6	36.6	39.2	37.9	38.7	119.9	37.8	0	5.5	12.5
10th	NB	Left 2	63.7	118.7	102.2	110.4	106.3	105.3	127.4	96.6	85.3	85.9	211.6	103.7	17.5	26.1	35
		Right 2	63.7	118.7	102.2	110.4	106.3	105.3	127.4	96.6	85.3	85.9	211.6	103.7	17.5	26.1	35
	EB	Through	59.8	58.6	60.1	60.6	59.1	60.9	61.6	59.5	57.6	45.1	178.2	59.5	0	11.9	21.1
		Right 2	59.8	58.6	60.1	60.6	59.1	60.9	61.6	59.5	57.6	45.1	178.2	59.5	0	11.9	21.1
	SB	Left 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.2	21.8	31.5
		Through	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.2	21.8	31.5
		Right 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.2	21.8	31.5
	WB	Left 2	103.4	89.5	101	104.3	100.1	107	86.7	105.2	101.8	104.9	204.4	102.8	0	23	35.5
		Through	103.4	89.5	101	104.3	100.1	107	86.7	105.2	101.8	104.9	204.4	102.8	0	23	35.5
11th	NB	Left 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Through	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Right 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
	EB	Left 2	68	65	64	59.4	82.4	82.8	63.3	80.9	79.5	62.5	299.2	65.3	0	13.7	26.9
		Through	68	65	64	59.4	82.4	82.8	63.3	80.9	79.5	62.5	299.2	65.3	0	13.7	26.9
		Right 2	68	65	64	59.4	82.4	82.8	63.3	80.9	79.5	62.5	299.2	65.3	0	13.7	26.9
	SB	Left 2	127.3	126.6	128.9	122.1	130.5	106.3	123.5	144.7	124.8	139.5	321.1	126.6	17.9	34.9	45.3
		Through	127.3	126.6	128.9	122.1	130.5	106.3	123.5	144.7	124.8	139.5	321.1	126.6	17.9	34.9	45.3
		Right 2	127.3	126.6	128.9	122.1	130.5	106.3	123.5	144.7	124.8	139.5	321.1	126.6	17.9	34.9	45.3
	WB	Left 2	39.9	41.2	41.5	56.5	40.2	40.9	41.5	59.2	41.1	42.1	145.2	41.5	0	6.8	16.5
		Through	39.9	41.2	41.5	56.5	40.2	40.9	41.5	59.2	41.1	42.1	145.2	41.5	0	6.8	16.5
		Right 2	39.9	41.2	41.5	56.5	40.2	40.9	41.5	59.2	41.1	42.1	145.2	41.5	0	6.8	16.5
12th	NB	Left 2	41.2	21.8	40.8	38.6	39.3	37.5	37	39	37.1	37.9	128	37.9	0	5.7	13.6
		Through	41.2	21.8	40.8	38.6	39.3	37.5	37	39	37.1	37.9	128	37.9	0	5.7	13.6
		Right 2	41.2	21.8	40.8	38.6	39.3	37.5	37	39	37.1	37.9	128	37.9	0	5.7	13.6
	EB	Left 2	40.1	38.5	39.7	37.2	36.5	38.9	39.2	40.2	38.4	38.2	396.2	39	0	6.1	18.8
		Through	40.1	38.5	39.7	37.2	36.5	38.9	39.2	40.2	38.4	38.2	396.2	39	0	6.1	18.8
		Right 2	40.1	38.5	39.7	37.2	36.5	38.9	39.2	40.2	38.4	38.2	396.2	39	0	6.1	18.8
	SB	Left 2	38.8	38.9	20.2	36.8	18.8	37.2	18.5	38.9	38	38.2	130.9	37	0	4.6	12.2
		Through	38.8	38.9	20.2	36.8	18.8	37.2	18.5	38.9	38	38.2	130.9	37	0	4.6	12.2
		Right 2	38.8	38.9	20.2	36.8	18.8	37.2	18.5	38.9	38	38.2	130.9	37	0	4.6	12.2
	WB	Left 2	31.2	41.5	37.3	41.5	39.7	35.6	41.2	37.1	37.8	19.2	148.2	38.1	0	4.9	14
		Through	31.2	41.5	37.3	41.5	39.7	35.6	41.2	37.1	37.8	19.2	148.2	38.1	0	4.9	14

		Right 2	31.2	41.5	37.3	41.5	39.7	35.6	41.2	37.1	37.8	19.2	148.2	38.1	0	4.9	14
13th	NB	Left 2	131.2	109.4	127.9	128.6	106.6	151.5	126.9	144.7	125.3	142.1	294.7	127.8	19.1	38.5	44.9
		Through	131.2	109.4	127.9	128.6	106.6	151.5	126.9	144.7	125.3	142.1	294.7	127.8	19.1	38.5	44.9
		Right 2	131.2	109.4	127.9	128.6	106.6	151.5	126.9	144.7	125.3	142.1	294.7	127.8	19.1	38.5	44.9
	EB	Left 2	40.5	40	38.9	39.8	22.3	39.2	40.4	37	42	39.4	328.6	39.7	0	5.8	15.6
		Through	40.5	40	38.9	39.8	22.3	39.2	40.4	37	42	39.4	328.6	39.7	0	5.8	15.6
		Right 2	40.5	40	38.9	39.8	22.3	39.2	40.4	37	42	39.4	328.6	39.7	0	5.8	15.6
	SB	Left 2	357.4	278.6	298.3	253.8	383.9	168.5	436.9	300.2	235.1	285.4	763.3	298.7	40.2	76.4	102.1
		Through	357.4	278.6	298.3	253.8	383.9	168.5	436.9	300.2	235.1	285.4	763.3	298.7	40.2	76.4	102.1
		Right 2	357.4	278.6	298.3	253.8	383.9	168.5	436.9	300.2	235.1	285.4	763.3	298.7	40.2	76.4	102.1
	WB	Left 2	107.5	103.6	107.1	105.9	105.3	127.4	124.8	106.7	105.6	108.4	212.9	107.7	0	24.4	39.9
		Through	107.5	103.6	107.1	105.9	105.3	127.4	124.8	106.7	105.6	108.4	212.9	107.7	0	24.4	39.9
		Right 2	107.5	103.6	107.1	105.9	105.3	127.4	124.8	106.7	105.6	108.4	212.9	107.7	0	24.4	39.9
14th	EB	Through	192.4	182.5	223.6	166.2	189.1	332.6	188.4	231.2	240.8	251	800.9	229.2	38.2	64.6	90.7
		Right 2	192.4	182.5	223.6	166.2	189.1	332.6	188.4	231.2	240.8	251	800.9	229.2	38.2	64.6	90.7
	SB	Left 2	525	620	714.4	395.3	871.6	850.6	727	675	518.9	690	1002.9	726.9	173.4	257.1	229.3
		Through	525	620	714.4	395.3	871.6	850.6	727	675	518.9	690	1002.9	726.9	173.4	257.1	229.3
		Right 2	521	616	710.4	391.3	867.6	846.6	723	671	514.9	686	998.9	722.9	169.4	253.1	229.3
	WB	Left 2	57.7	61.9	57.9	62.4	57.3	57.1	57.3	57.4	59.5	57.4	185.8	57.6	0	13.8	24.5
		Through	57.7	61.9	57.9	62.4	57.3	57.1	57.3	57.4	59.5	57.4	185.8	57.6	0	13.8	24.5
Florida	EB	Through	78.8	100.3	60.8	83.4	62.7	103.9	74.5	61.8	81.3	99.5	314.2	81.4	0	10.7	29.7
	WB	Through	0	0	0	0	0	0	0	0	0	0	67.3	0	0	0.8	5.3
		Right 1	0	0	0	0	0	0	0	0	0	0	74.8	0	0	0.7	4.5
Starburst	NB	Right 1	146.7	130.5	145.9	144.2	146.5	142	189.3	170.5	166.6	194.2	278.8	166.3	62.7	70.2	49.8
		Right 2	146.7	130.5	145.9	144.2	146.5	142	189.3	170.5	166.6	194.2	278.8	166.3	62.7	70.2	49.8
	NEB	Through	57	63.2	56.9	57.5	59.5	39.1	40.3	57.4	56.9	42.1	119.9	57	0	13.1	18.3
		Right 1	57	63.2	56.9	57.5	59.5	39.1	40.3	57.4	56.9	42.1	119.9	57	0	13.1	18.3
	EB	Left 1	201.7	251.2	195.3	201	172.4	264.4	184.8	194.3	225.6	256.9	289.4	216.5	18.1	49.4	71.1
		Through	182.8	187.7	165.9	173	153.1	216.1	173.5	166.8	180.2	209.8	240.8	181.2	0	39.6	62.6
		Right 3	182.8	187.7	165.9	173	153.1	216.1	173.5	166.8	180.2	209.8	240.8	181.2	0	39.6	62.6
	SWB	Through	124	119.3	102.6	119.5	121.2	121.8	106.3	119.1	121.1	104.6	256.1	118.2	36.5	40.4	42.1
		Right 1	124	119.3	102.6	119.5	121.2	121.8	106.3	119.1	121.1	104.6	256.1	118.2	36.5	40.4	42.1
	WB	Through	124.7	141	119.9	128.4	125.4	127.9	123	127.2	126.2	128.6	286	126	0	33.6	45.4
		Right 3	124.7	141	119.9	128.4	125.4	127.9	123	127.2	126.2	128.6	286	126	0	33.6	45.4
Bladensburg/Maryland	NEB	Left 2	60.6	61.3	65.3	77	66	61.8	62.5	61.2	82.1	64.6	278.2	63.1	0	13.1	27.3
		Through	60.6	61.3	65.3	77	66	61.8	62.5	61.2	82.1	64.6	278.2	63.1	0	13.1	27.3
		Right 2	60.6	61.3	65.3	77	66	61.8	62.5	61.2	82.1	64.6	278.2	63.1	0	13.1	27.3
	SEB	Left 2	86.3	80.5	82.9	72.8	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
		Through	86.3	80.5	82.9	72.8	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
		Right 2	86.3	80.5	82.9	72.8	79.8	63.1	78.2	63.9	65.2	61	197.9	78.2	0	19.2	25.7
	SWB	Left 2	40.5	39.2	40.1	39.5	39.7	40	39.9	39.7	40.4	39.4	162.6	39.9	0	6.4	15.9
		Through	40.5	39.2	40.1	39.5	39.7	40	39.9	39.7	40.4	39.4	162.6	39.9	0	6.4	15.9
		Right 2	40.5	39.2	40.1	39.5	39.7	40	39.9	39.7	40.4	39.4	162.6	39.9	0	6.4	15.9
	NWB	Left 2	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.4	22.2	28.2
		Through	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.4	22.2	28.2
		Right 2	79	83.8	77	79.4	82.2	83.1	82.9	65.8	79.4	77	198.3	80.9	17.4	22.2	28.2
16th	NB	Left 2	109.7	109	122.8	107	103.1	88	104.5	105.7	105.3	102.3	236.8	105.8	18	29.4	37.6
		Through	109.7	109	122.8	107	103.1	88	104.5	105.7	105.3	102.3	236.8	105.8	18	29.4	37.6
		Right 2	109.7	109	122.8	107	103.1	88	104.5	105.7	105.3	102.3	236.8	105.8	18	29.4	37.6
	EB	Left 2	17.8	0	17.5	0	0	16.2	0	0	0	0	64.4	0	0	0.9	4.5
		Through	190	170.1	144.7	129.9	133.3	146.7	154.8	131.6	174.8	169.2	357.4	150.3	0	32.1	55.1
		Right 2	174.9	155	129.7	114.9	118.2	131.6	139.7	116.6	159.8	154.2	342.4	135.2	0	26.5	49.8
	SB	Left 2	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
		Through	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
		Right 2	58.8	65.9	58.9	64.7	63.1	84.2	56.9	63.9	78.7	61.8	191.9	63.2	0	16.2	24.4
	WB	Left 2	18.5	0	0	18.2	17	0	17.5	0	17.9	18.2	83.8	16.8	0	1.4	6.4
		Through	148	132.4	128.3	134	127.2	126.9	125	148.4	133.2	149.8	287.4	132	0	30.5	49.3
		Right 2	148	132.4	128.3	134	127.2	126.9	125	148.4	133.2	149.8	287.4	132	0	30.5	49.3
17th	EB	Left 2	19	18.9	19.1	19.6	18.4	18.7	18.8	19.8	18.6	18.2	90.5	18.8	0	2.5	8.7
		Through	173.3	206.6	181.4	168.6	175.2	171.5	184.2	171.4	193.4	212.3	511.6	185.2	0	48.6	68.3
		Right 2	173.3	206.6	181.4	168.6	175.2	171.5	184.2	171.4	193.4	212.3	511.6	185.2	0	48.6	68.3
	SB	Left 2	343.3	343.4	302.8	369.8	547.7	325.2	374.6	277.5	296.3	275	595.7	344.1	83.8	115.9	118.2
		Through	248.1	258.6	277.4	309.5	265.9	232.5	298	236.7	257	225.8	596.1	259.8	39.8	63.5	85.1
		Right 2	236.2	246.7	265.5	297.6	254	220.5	286	224.9	245.1	213.9	584.2	247.9	27.9	54.5	83.1
	WB	Left 2	0	18.5	16.1	18.9	18.1	18.4	18.4	0	18.2	0	110.8	17.7	0	1.7	7.7
		Through	152.9	152.5	148.8	160.1	175.9	145.1	180.2	178.4	145.6	168.8	378	158.4	0	37	57.3
		Right 2	145.2	144.8	141.1	152.4	168.2	137.5	172.5	170.7	137.9	161.1	370.3	150.7	0	32.8	55
19th	NB	Left 2	149.8	154.7	150.4	148.2	169.2	139.8	146.9	138.2	147.3	144.7	354.1	147.4	40.6	54	50.8
		Through	149.8	154.7	150.4	148.2	169.2	139.8	146.9	138.2	147.3	144.7	354.1	147.4	40.6	54	50.8
		Right 2	149.8	154.7	150.4	148.2	169.2	139.8	146.9	138.2	147.3	144.7	354.1	147.4	40.6	54	50.8
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	40.4	0	0	0.3	2.3
		Through	105	104.4	105	105.8	101.7	101.7	105	106.1	105.2	105.7	253.4	104.8	0	27.7	39.3
	WB	Through	64.2	80.9	62.3	61	62.5	62.1	61.8	60.3	79.9	71	182.3	63.8	0	12.2	25.1
		Right 2	64.2	80.9	62.3	61	62.5	62.1	61.8	60.3	79.9	71	182.3	63.8	0	12.2	25.1
21st	NB	Left 2	75.9	83.3	81.9	82.3	65.7	64.3	118.6	91.7	144.2	133.2	269.7	86.4	17.7	24.7	34.8
		Through	75.9	83.3	81.9	82.3	65.7	64.3	118.6	91.7	144.2	133.2	269.7	86.4	17.7	24.7	34.8
		Right 2	75.9	83.3	81.9	82.3	65.7	64.3	118.6	91.7	144.2	133.2	269.7	86.4	17.7	24.7	34.8
	EB	Left 2	13.8	0	0	0	0	0	0	0	0	0	77.5	0	0	0.8	5
		Through	64.8	67.2	71.4	89.4	122.1	88.5	66	68.5	64.3	88.4	385.5	83.6	0	18.1	34
		Right 2	64.8	67.2	71.4	89.4	122.1	88.5	66	68.5	64.3	88.4	385.5	83.6	0	18.1	34
	SB	Left 2	123.9	101.6	100	105.2	106.7	126.8	112.9	102.6	120.9	105.3	232.7	106.2	18.8	33.6	38.2
		Through	123.9	101.6	100	105.2	106.7	126.8	112.9	102.6	120.9	105.3	232.7	106.2	18.8	33.6	38.2
		Right 2	123.9	101.6	100	105.2	106.7	126.8	112.9	102.6	120.9	105.3	232.7	106.2	18.8	33.6	38.2
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	62.2	0	0	0.4	3
		Through	82.9	84.3	75.4	82.8	81.1	83.1	84.3	88.8	80.6	107	204.7	83.8	0	19.1	31.3
		Right 2	82.9	84.3	75.4	82.8	81.1	83.1	84.3	88.8	80.6	107	204.7	83.8	0	19.1	31.3
24th	NB	Left 2	39.8	39	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
		Right 2	39.8	39	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
	EB	Through	40.6	20.3	42.1	41.5	37	42.3	42.2	18.6	20.1	20	229.8	39.1	0	5.4	22.4
	WB	Through	49.5	49.6	49.3	49.6	49.5	49.8	49.3	49.6	49.6	50	189.3	49.6	0	5.7	16.9
26th	EB	Left 2	0	0	0	0	0	0	0	0	0	0	50.3	0	0	0.3	2.9
		Through	42.1	42.5	42.2	45.4	61.8	38	41.9	42	39.6	42.4	366.6	42.1	0	7.2	22.8
	SB	Left 2	121.9	122.2	106.5	100.5	106.2	102.5	120.5	123.4	102.3	101.4	257.7	105.6	18.2	32.5	38.6
		Right 2	109.3	109.6	93.9	87.9	93.7	90	107.9	110.8	89.7	88.8	245.1	93	0	23.7	35.3
	WB	Through	75.5	67.1	56.6	60.3	57.3	54.8	55.2	75.1	64.8	76.7	193.5	60.9	0	10.1	22.6
		Right 2	75.5	67.1	56.6	60.3	57.3	54.8	55.2	75.1	64.8	76.7	193.5	60.9	0	10.1	22.6
Oklahoma	NEB	Left 3	80	64.1	83.3	58.9	60.5	79.4	62	58.8	65.2	79.9	192.1	64	0	14.2	25.1
		Right 1	60.2	44.3	63.5	39.1	40.7	59.6	42.2	39.1	45.4	60.1	172.3	44.3	0	7.3	18.7
	EB	Through	80.2	80.2	100.6	79.8	99.9	79.9	101.2	79.9	80.5	79.8	255.8	80.2	0	15.6	35.4
		Right 3	80.2	80.2	100.6	79.8	99.9	79.9	101.2	79.9	80.5	79.8	255.8	80.2	0	15.6	35.4
	WB	Left 1	39	38.6	38.7	36.1	39.4	38.7	41.7	40.1	39	37.7	160.4	39	0	4.8	14
		Through	39	38.6	38.7	36.1	39.4	38.7	41.7	40.1	39	37.7	160.4	39	0	4.8	14

Travel Times for Scenario 2b: 2013 Opening Year No-Build PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.7	254.2	443	257.7	426	259.7	402	254.4	421	259.7	418	274.9	425	259.6	430	262.3	439	261.8	453	262.1	466	260.6	54.1	171.6	593	17.1	25.9
EB H: Union to Kaiser	2	708.4	26.4	1155	27.2	1129	27.2	1113	27.5	1105	28.5	1132	27	1166	27.4	1188	27.3	1190	26.3	1179	27.8	1179	27.3	9.7	17	78.9	17.7	28.5
EB H: Kaiser to 3rd	3	593.2	22.5	1236	22.7	1224	22.8	1197	22.2	1203	22.6	1240	23	1260	22.3	1293	23.4	1272	22.5	1269	23.5	1270	22.8	12.2	14.4	131.5	17.7	28.1
EB H: 3rd to 4th	4	426.6	15.7	1079	16.4	1065	15.7	1043	15.5	1032	16	1064	16.4	1069	16.7	1114	16	1100	16.3	1103	16.5	1092	16.1	9.9	10.1	52.1	18.1	28.7
EB H: 4th to 5th	5	595	26.9	1110	26.9	1100	27.5	1095	26.9	1073	26.1	1099	29.5	1131	27.2	1171	27.1	1139	27.1	1140	27	1112	27.2	13.9	14.2	91.8	14.9	28.5
EB H: 6th to 7th	6	651.5	26	1100	24.9	1071	25.7	1060	25.9	1046	24.9	1088	25.5	1123	25.2	1149	25.4	1112	27.1	1102	26.3	1116	25.7	11.8	15.7	108.6	17.3	28.2
EB H: 7th to 8th	7	334	13	1045	13.7	1027	12.9	1030	12.6	1027	13.2	1076	13.9	1084	13.5	1106	13.2	1063	13.8	1072	13.2	1090	13.3	8.6	7.8	55.9	17.1	29.1
EB H: 8th to 9th	8	339.8	12.3	1010	12.8	996	12.4	1006	12	986	12.5	1038	12.7	1034	12.4	1050	12.1	1001	12.3	993	12.2	1043	12.4	8.2	8.1	78.2	18.7	28.7
EB H: 9th to 10th	9	315.6	10	1050	10.1	1045	10.5	1060	10.3	1036	10.2	1059	10.4	1073	10.3	1088	9.9	1043	10.3	1036	9.9	1065	10.2	4.8	7.4	49.7	21.1	29.1
EB H: 10th to 11th	10	315.6	10.8	1065	11.2	1055	11.3	1060	10.8	1041	11	1074	11.7	1098	11.2	1108	11.1	1059	11.3	1051	10.7	1084	11.1	7.2	7.4	75.6	19.4	28.9
EB H: 11th to 12th	11	360.1	11.9	1098	11.8	1101	12.3	1102	12	1071	12	1129	12.1	1145	12.1	1127	12.2	1083	11.8	1077	11.7	1121	12	6.8	8.5	54.8	20.5	29
EB H: 12th to 13th	12	557.6	18	1145	17.5	1128	17.8	1154	17.2	1103	17.4	1145	17.8	1175	17.8	1188	17.6	1134	17.9	1108	17.6	1175	17.7	7.2	13.4	78.1	21.5	28.4
EB H: 13th to 14th	13	781.2	31.3	1094	32.4	1093	33.3	1112	30.7	1072	32.3	1123	41.4	1134	32.3	1122	33.8	1071	35.7	1080	36	1123	34	18.6	19	115.7	15.7	28
EB H: 14th to Starburst (incl ped sig)	14	512.1	21.8	937	22.4	913	21.7	928	22.3	899	21.6	946	23	942	22.6	975	22.6	911	22	926	23	972	22.3	13.8	12.3	104.1	15.7	28.4
WB H	15	6427.2	265.1	149	264.2	177	263.9	152	266.6	153	261.4	149	266	128	261.3	161	265.9	143	261.5	167	267.7	134	264.2	59.3	183.7	543.3	16.6	23.9
WB H: Starburst to 14th (incl. ped sig)	16	480.6	16.4	393	17.8	420	16.2	420	16.9	409	16.2	405	15.7	401	15.8	425	16.2	409	17.4	425	16.6	409	16.5	8.9	11.4	82.5	19.9	28.7
WB H: 14th to 13th	17	799.1	37.8	364	36.8	388	38.5	383	37.5	379	36.5	371	38.7	370	38.7	394	38.5	381	36.9	391	38.8	367	37.9	14.1	19.4	110.5	14.4	28.2
WB H: 13th to 12th	18	554.2	17	356	18.2	391	17.8	377	18.3	372	17.9	365	17.6	360	17.5	375	17.6	377	17.8	387	17.2	350	17.7	7.3	13.3	106.2	21.3	28.5
WB H: 12th to 11th	19	364	12.6	427	13.3	465	13.4	458	14	448	12.9	426	13.9	428	13.4	436	13.6	459	13.5	450	13.1	431	13.4	8.4	8.5	110.8	18.5	29.2
WB H: 11th to 10th	20	319.4	21.5	402	20.4	434	20.9	425	20.6	424	20.1	404	21.7	401	20.4	404	21.9	438	19.6	412	19.7	409	20.7	15.6	7.5	110.2	10.5	29
WB H: 10th to 9th	21	315.3	15.7	409	16.2	432	16	434	14.6	433	15.4	404	15.6	415	15.2	427	15.9	433	15.1	426	15.8	417	15.6	12.6	7.5	83.9	13.8	28.8
WB H: 9th to 8th	22	333.3	11.6	415	12.2	433	11.9	431	12.8	439	12.8	409	11.8	412	12	425	12.3	435	12.2	440	11.9	426	12.2	8.1	7.8	72.5	18.6	29.1
WB H: 8th to 7th	23	348.1	14.2	419	14.2	461	13.8	441	14.3	456	14.7	415	13.9	440	15.2	418	14.2	418	13.9	461	14.1	433	14.2	11.1	8.1	73.4	16.7	29.1
WB H: 7th to 6th	24	641	24	413	23.9	472	23.4	451	24	454	24.6	412	24.4	433	23	412	24.4	423	23.9	473	23.9	440	23.9	11	15.1	83.2	18.3	28.9
WB H: 6th to 4th	25	599.5	21.9	384	22.7	444	21.6	424	22.7	437	22	392	21.6	402	21.4	392	21.2	395	21.5	453	21.6	420	21.8	9.2	14.2	60.7	18.8	28.8
WB H: 4th to 3rd	26	413.5	18.8	420	19.7	471	18.8	441	20.8	458	19.4	405	18.7	423	19.6	409	19.4	410	19.6	464	19.4	439	19.4	11.1	9.8	90.3	14.5	28.7
WB H: 3rd to Kaiser	27	589.2	16.5	459	16.7	518	16.6	467	16.3	498	16.4	460	16.3	454	16.8	469	16.6	470	16.4	484	16.7	476	16.5	4.3	13.9	62	24.3	28.8

WB H: Kaiser to Union	28	647.4	21.5	529	22.4	575	22.3	533	22.3	533	21.6	500	21.8	517	21.9	510	22.4	527	21.7	559	21.7	547	22	6.5	15.1	43.2	20.1	29.2
EB Benning	29	4103	141.6	1141	143.3	1123	139.6	1107	142.5	1085	142.1	1154	140.6	1117	141.2	1193	139.4	1136	141	1121	143.4	1147	141.5	41.2	101.5	473.6	19.8	27.6
EB Benning: Starbust to 16th	30	621.7	28.5	1410	28.1	1391	27.1	1395	27.7	1345	26.4	1443	27.2	1366	27.5	1464	27.1	1409	28	1404	28.7	1470	27.6	15.7	15	118.1	15.4	28.3
WB Benning: 16th to 17th	31	636.9	28.4	1388	31.1	1384	28.1	1375	29.3	1322	29.2	1436	28.4	1344	29	1410	28.3	1370	28.6	1371	29.7	1450	29	16.5	15.2	142.1	15	28.6
EB Benning: 17th to 19th	32	827.2	26.7	1338	26.6	1335	26.8	1290	26.9	1279	26.7	1355	26.5	1302	26.7	1370	27.1	1300	26.9	1309	26.6	1356	26.7	10.4	19.7	110.3	21.1	28.7
EB Benning: 19th to 21st	33	671.8	20.9	1732	21.1	1713	21.2	1669	21.5	1675	21.7	1730	21.5	1666	21.1	1720	21.4	1695	20.9	1685	22	1743	21.3	7.9	15.9	88.1	21.5	28.8
EB Benning: 21st to 24th	34	583.1	18.3	1736	17.8	1696	17.8	1693	18	1692	18.1	1742	18	1659	18.2	1745	17.5	1699	17.9	1702	18.4	1729	18	7.3	13.9	71.9	22.1	28.6
EB Benning: 24th to 26th	35	513.5	15.7	1830	15.4	1772	15.9	1778	15.8	1761	16.1	1821	15	1733	15.5	1822	15.5	1772	15.4	1779	15.3	1814	15.6	4.2	12.3	52.9	22.4	28.6
EB Benning: 26th to OK	36	237.9	8.1	1854	7.9	1786	8.3	1797	7.9	1772	8.3	1834	7.9	1754	8.1	1841	7.9	1792	7.8	1797	7.8	1831	8	5.4	5.6	66	20.3	29.2
WB Benning	37	4173.3	192.5	345	192.4	347	189.7	337	193.5	336	190.2	346	185.1	336	189.1	331	187.8	369	187.6	361	193.5	373	190.1	41.9	106	528.7	15	26.8
WB Benning: OK to 26th	38	273.5	10.4	803	10.1	824	9.8	794	10	832	10	834	9.4	836	9.6	854	9.9	886	9.6	904	10.1	896	9.9	6.3	6.4	57.2	18.8	29.3
WB Benning: 26th to 24th	39	496.1	14.5	747	14.6	766	14.9	735	14.7	754	14.6	755	14.7	776	14.3	783	14.2	799	14.8	820	15	820	14.6	5.3	11.7	80.6	23.2	28.8
WB Benning: 24th to 21st	40	583	23.5	759	22.5	791	22	756	22.2	772	23	762	22.2	788	22.3	795	23	824	22.1	827	23.9	824	22.7	11.4	13.7	80.6	17.5	29
WB Benning: 21st to 19th	41	598.6	18.5	764	18.7	786	18.6	757	18.2	782	18.4	762	18.3	791	18.7	797	18.2	816	18.6	827	18.3	824	18.5	6.3	14.2	80	22.1	28.8
WB Benning: 19th to 17th	42	875.1	38.3	769	38.5	776	38.2	770	38.7	794	39.1	776	37.9	809	37.4	806	38.5	808	36.8	804	39.3	823	38.3	14.6	21.3	117.2	15.6	28
WB Benning: 17th to 16th	43	655.6	34.9	618	33.9	614	35	612	33.9	626	33	627	33.9	610	32.1	628	34	646	33.5	632	35.8	639	34	16.5	15.8	115.5	13.1	28.2
WB Benning: 16th to Starburst	44	678.1	38.7	542	42.3	562	36.4	535	39.2	543	39.9	551	37.8	558	40.7	574	39.1	566	40.8	549	38.5	577	39.3	19.2	16.5	87.6	11.8	28
EB Corridor	45	9924.4	388.5	383	391.6	368	387.3	339	388.2	359	389.1	374	399.7	387	392	392	390.5	393	393.1	395	394.4	396	391.5	93.8	293.7	1044.3	17.3	23
WB Corridor	46	10604.9	495.7	69	493.2	77	493	71	493.7	75	492.9	65	504.9	54	482.2	78	497	66	482.2	79	496.9	77	492.6	137.4	321.8	1007.7	14.7	22.5

Movement Group Delay for Scenario 2c: 2013 Build AM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	6.7	A
Kaiser Garage	20	0.4	A
3rd	30	20.8	C
4th	40	22.6	C
6th	60	16	B
7th	70	5.6	A
8th	80	15	B
9th	90	5.2	A
10th	100	5.9	A
11th	110	11.8	B
12th	120	7.2	A
13th	130	12.9	B
14th	140	14	B
Florida	150	6.7	A
Starburst	151	27.3	C
Bladensburg/Maryland	152	17.1	B
16th	160	11.5	B
17th	170	16.3	B
19th	190	14.7	B
21st	210	6.4	A
24th	240	2.5	A
26th	260	4.3	A
Oklahoma	270	4.4	A
East Terminus	271	0.5	A

Queue Lengths for Scenario 2c: 2013 Build AM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	38.5	40.3	39.3	35.3	38.1	35.6	37.6	39.3	37.4	36.2	100.2	38	0	8	13.5
		Right 2	38.5	40.3	39.3	35.3	38.1	35.6	37.6	39.3	37.4	36.2	100.2	38	0	8	13.5
	EB	Through	41.4	41.6	41.4	40.2	41.3	41.5	42.6	56.2	41.5	41.9	151	41.6	0	6.3	16
		Right 2	41.4	41.6	41.4	40.2	41.3	41.5	42.6	56.2	41.5	41.9	151	41.6	0	6.3	16
	WB	U-turn Marker	124.1	86.3	122.1	87.9	154	117.7	147.9	98	101.2	104.6	257	122.1	19.4	37.2	39.4
		Left 2	124.1	86.3	122.1	87.9	154	117.7	147.9	98	101.2	104.6	257	122.1	19.4	37.2	39.4
		Through	41.2	44.3	20.1	39	39.4	40.2	40.1	39	39.2	37.2	230.5	39.9	0	4.3	16.4
Kaiser Garage	NB	Right 2	0	0	0	0	0	0	0	0	0	0	36.5	0	0	0.1	1.3
	EB	Through	0	0	0	0	0	0	0	0	0	0	125.6	0	0	3.6	20.4
		Right 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WB	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3rd	NB	Left 2	103.1	84.6	98.1	187.7	85	123.7	123.2	151.5	128.5	126.2	399.4	123.2	18.5	34.5	45.8
		Through	103.1	84.6	98.1	187.7	85	123.7	123.2	151.5	128.5	126.2	399.4	123.2	18.5	34.5	45.8
		Right 2	103.1	84.6	98.1	187.7	85	123.7	123.2	151.5	128.5	126.2	399.4	123.2	18.5	34.5	45.8
	EB	Left 2	90	83.2	68.1	68.5	69.8	105.8	99.4	98.5	86.1	87.2	184.4	86	0	19.6	31.4
		Through	72.9	72	71.8	72.5	72	72.6	76.8	79.6	72.5	72.6	184.4	72.5	0	14.5	28.5
		Right 2	90	83.2	68.1	68.5	69.8	105.8	99.4	98.5	86.1	87.2	184.4	86	0	19.6	31.4
	SB	Left 2	64.9	63.3	82.9	100.2	64.6	101.2	80.5	83.9	62.3	42.9	212.7	75.9	0	13.6	26.8
		Through	64.9	63.3	82.9	100.2	64.6	101.2	80.5	83.9	62.3	42.9	212.7	75.9	0	13.6	26.8
		Right 2	55.5	53.8	73.4	90.8	55.1	91.8	71	74.4	52.8	33.4	203.2	66.4	0	9.3	23.9
	WB	Left 2	412.6	411.1	411.5	403.2	411.7	411.5	403.2	406.7	408.1	405.8	437	409.8	112.5	153.9	149.5
		Through	412.6	411.1	411.5	403.2	411.7	411.5	403.2	406.7	408.1	405.8	437	409.8	112.5	153.9	149.5
		Right 2	412.6	411.1	411.5	403.2	411.7	411.5	403.2	406.7	408.1	405.8	437	409.8	112.5	153.9	149.5
4th	EB	Through	39.3	42.3	41.4	41.2	40.4	40.6	41.3	39.5	41.5	40.6	127.2	41.1	0	6.4	15.5
		Right 2	39.3	42.3	41.4	41.2	40.4	40.6	41.3	39.5	41.5	40.6	127.2	41.1	0	6.4	15.5
	SB	Left 2	167.3	143.6	140.4	147.4	151.1	168.5	142.5	180.5	143.1	146.7	442.2	149.6	19.4	43.4	53.1
		Through	167.3	143.6	140.4	147.4	151.1	168.5	142.5	180.5	143.1	146.7	442.2	149.6	19.4	43.4	53.1
		Right 2	40.7	69.3	44.7	100.3	41.6	52.1	34.9	41.2	39	35.1	280.7	44.9	0	5.8	22.3
	WB	Left 2	591.8	535.3	492	419.4	438.9	597.7	371.3	465.4	469.1	396.4	637.2	493.7	61.7	136.7	169.7
		Through	591.8	535.3	492	419.4	438.9	597.7	371.3	465.4	469.1	396.4	637.2	493.7	61.7	136.7	169.7
6th	NB	Left 2	233.9	272.6	275.6	233.7	208.8	233	189.5	190.5	254.7	289.7	515.4	239.8	60	78.2	82.4
		Through	233.9	272.6	275.6	233.7	208.8	233	189.5	190.5	254.7	289.7	515.4	239.8	60	78.2	82.4
		Right 2	222.2	261	264	222.1	197.1	221.4	177.9	178.8	243.1	278.1	503.8	228.2	48.4	69.4	79.8
	EB	Left 2	64.4	66.7	80.7	111.7	86.8	70.3	67.4	66.3	85.6	125	255.6	84.3	0	19	32.7
		Through	64.4	66.7	80.7	111.7	86.8	70.3	67.4	66.3	85.6	125	255.6	84.3	0	19	32.7
	WB	Through	466.9	297.2	214.4	322.8	249.3	411.6	255.8	328.8	251.4	198.8	674.5	314.6	0	55.4	106.4
		Right 2	466.9	297.2	214.4	322.8	249.3	411.6	255.8	328.8	251.4	198.8	674.5	314.6	0	55.4	106.4
7th	EB	Left 2	42.7	61.2	44.2	44.1	57.9	63.3	61.9	61.3	62.2	61.1	189.6	60.1	0	8.9	21
		Through	42.7	61.2	44.2	44.1	57.9	63.3	61.9	61.3	62.2	61.1	189.6	60.1	0	8.9	21
		Right 2	42.7	61.2	44.2	44.1	57.9	63.3	61.9	61.3	62.2	61.1	189.6	60.1	0	8.9	21
	SB	Left 2	62.6	63.9	81.8	84.2	81.8	62.9	65.6	63.5	67.1	63.2	187.8	64.7	0	16.8	26.4
		Through	62.6	63.9	81.8	84.2	81.8	62.9	65.6	63.5	67.1	63.2	187.8	64.7	0	16.8	26.4
		Right 2	62.6	63.9	81.8	84.2	81.8	62.9	65.6	63.5	67.1	63.2	187.8	64.7	0	16.8	26.4
	WB	Left 2	110.8	70.5	84.3	68.2	85.9	64.9	69.2	77.6	61.8	64.7	377	79.5	0	12.1	36.2
		Through	110.8	70.5	84.3	68.2	85.9	64.9	69.2	77.6	61.8	64.7	377	79.5	0	12.1	36.2
		Right 2	110.8	70.5	84.3	68.2	85.9	64.9	69.2	77.6	61.8	64.7	377	79.5	0	12.1	36.2
8th	NB	Left 2	206.1	145.8	143.5	123.8	171.3	159.2	148.4	124.1	125.8	160	347.6	149.3	19	42.8	53.8
		Through	206.1	145.8	143.5	123.8	171.3	159.2	148.4	124.1	125.8	160	347.6	149.3	19	42.8	53.8
		Right 2	191.7	131.4	129.1	109.4	156.9	144.8	133.9	109.7	111.4	145.6	333.1	134.8	0	33.4	49.9
	EB	Left 2	101.8	102.1	158.8	115.9	107.6	126.1	117.9	125.2	119.6	105.5	247.9	120.2	0	28.3	42.5
		Through	101.8	102.1	158.8	115.9	107.6	126.1	117.9	125.2	119.6	105.5	247.9	120.2	0	28.3	42.5
		Right 2	101.8	102.1	158.8	115.9	107.6	126.1	117.9	125.2	119.6	105.5	247.9	120.2	0	28.3	42.5
	SB	Left 2	127.9	105.1	121.7	106.4	203.6	125.9	165.7	128.7	125.7	138.4	296.1	133.4	18.6	38.2	48.2
		Through	127.9	105.1	121.7	106.4	203.6	125.9	165.7	128.7	125.7	138.4	296.1	133.4	18.6	38.2	48.2
		Right 2	116.8	94.1	110.6	95.3	192.5	114.9	154.7	117.6	114.7	127.4	285	122.4	0	30.6	45.4
	WB	Left 2	276.5	178.8	205	183.5	170	189.7	174	230.3	191.8	220.3	367.6	199.6	0	50.7	72.6
		Through	276.5	178.8	205	183.5	170	189.7	174	230.3	191.8	220.3	367.6	199.6	0	50.7	72.6
		Right 2	276.5	178.8	205	183.5	170	189.7	174	230.3	191.8	220.3	367.6	199.6	0	50.7	72.6
9th	NB	Left 2	59.1	59.4	66.2	58.4	58.6	59.2	39.6	58.9	63.2	61.1	151.2	59.2	0	12.7	20.8
		Through	59.1	59.4	66.2	58.4	58.6	59.2	39.6	58.9	63.2	61.1	151.2	59.2	0	12.7	20.8
		Right 2	59.1	59.4	66.2	58.4	58.6	59.2	39.6	58.9	63.2	61.1	151.2	59.2	0	12.7	20.8
	EB	Left 2	39.8	38.5	41.3	38.4	40.9	39.8	38.5	19.9	38.1	41	92.3	39.7	0	5.3	12.7
		Through	39.8	38.5	41.3	38.4	40.9	39.8	38.5	19.9	38.1	41	92.3	39.7	0	5.3	12.7
		Right 2	39.8	38.5	41.3	38.4	40.9	39.8	38.5	19.9	38.1	41	92.3	39.7	0	5.3	12.7
	SB	Left 2	36.8	40.4	40.3	40.2	59.1	40.2	37.9	39.3	41.9	40.2	122.3	40.3	0	8.5	15.5
		Through	36.8	40.4	40.3	40.2	59.1	40.2	37.9	39.3	41.9	40.2	122.3	40.3	0	8.5	15.5
		Right 2	36.8	40.4	40.3	40.2	59.1	40.2	37.9	39.3	41.9	40.2	122.3	40.3	0	8.5	15.5
	WB	Left 2	61.1	41.2	40	40.3	40	40.7	39	42.9	39.6	40.7	324.1	40.7	0	6.9	19.1
		Through	61.1	41.2	40	40.3	40	40.7	39	42.9	39.6	40.7	324.1	40.7	0	6.9	19.1
		Right 2	61.1	41.2	40	40.3	40	40.7	39	42.9	39.6	40.7	324.1	40.7	0	6.9	19.1
10th	NB	Left 2	80.7	63.7	65.7	61	66.8	52	63.3	83	58.6	64.6	170.8	63.8	0	15.8	24.6
		Right 2	80.7	63.7	65.7	61	66.8	52	63.3	83	58.6	64.6	170.8	63.8	0	15.8	24.6
	EB	Through	41.9	59.7	65.3	59	43.6	60.4	71.2	41.8	40.6	64	159.3	59.4	0	8.2	19.6
		Right 2	41.9	59.7	65.3	59	43.6	60.4	71.2	41.8	40.6	64	159.3	59.4	0	8.2	19.6
	SB	Left 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Through	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Right 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
	WB	Left 2	39.6	38.9	38.4	38.2	38.8	39.1	40.1	38.8	38.4	37.3	330.2	38.8	0	6.3	16.7
		Through	39.6	38.9	38.4	38.2	38.8	39.1	40.1	38.8	38.4	37.3	330.2	38.8	0	6.3	16.7
11th	NB	Left 2	41.3	40.6	41.1	40.9	42.2	40.8	40.9	40.8	59.6	38.1	107.7	41.2	0	8.4	16.3
		Through	41.3	40.6	41.1	40.9	42.2	40.8	40.9	40.8	59.6	38.1	107.7	41.2	0	8.4	16.3
		Right 2	41.3	40.6	41.1	40.9	42.2	40.8	40.9	40.8	59.6	38.1	107.7	41.2	0	8.4	16.3
	EB	Left 2	61.6	68.2	63.8	58.1	85.4	64.2	73.7	81	65.8	84.9	175.7	73.5	0	16	27
		Through	61.6	68.2	63.8	58.1	85.4	64.2	73.7	81	65.8	84.9	175.7	73.5	0	16	27
		Right 2	61.6	68.2	63.8	58.1	85.4	64.2	73.7	81	65.8	84.9	175.7	73.5	0	16	27
	SB	Left 2	62.2	81.2	62.1	63.5	60.3	61.6	59.1	62.8	60.8	62.5	144.3	62.2	0	14.4	23.2
		Through	62.2	81.2	62.1	63.5	60.3	61.6	59.1	62.8	60.8	62.5	144.3	62.2	0	14.4	23.2
		Right 2	62.2	81.2	62.1	63.5	60.3	61.6	59.1	62.8	60.8	62.5	144.3	62.2	0	14.4	23.2
	WB	Left 2	231.6	214.5	199.9	184.7	164	220	176.3	240.2	186.7	169.6	383.1	205	0	48	72.6
		Through	231.6	214.5	199.9	184.7	164	220	176.3	240.2	186.7	169.6	383.1	205	0	48	72.6
		Right 2	231.6	214.5	199.9	184.7	164	220	176.3	240.2	186.7	169.6	383.1	205	0	48	72.6
12th	NB	Left 2	63.2	62.6	69.4	63.5	62.5	60.2	62.5	60.2	59	61.5	124.3	62.5	0	15.1	22.8
		Through	63.2	62.6	69.4	63.5	62.5	60.2	62.5	60.2	59	61.5	124.3	62.5	0	15.1	22.8
		Right 2	63.2	62.6	69.4	63.5	62.5	60.2	62.5	60.2	59	61.5	124.3	62.5	0	15.1	22.8
	EB	Left 2	37.3	34.4	40.2	36.8	35.9	37.2	21.1	36.7	56.5	38.9	208.7	38	0	4.7	16.5
		Through	37.3	34.4	40.2	36.8	35.9	37.2	21.1	36.7	56.5	38.9	208.7	38	0	4.7	16.5
		Right 2	37.3	34.4	40.2	36.8	35.9	37.2	21.1	36.7	56.5	38.9	208.7	38	0	4.7	16.5
	SB	Left 2	59.7	82.6	63.6	62.8	58.7	62.5	64	82.7	62.8	82.2	151.2	78.6	0	16.7	25.7
		Through	59.7	82.6	63.6	62.8	58.7	62.5	64	82.7	62.8	82.2	151.2	78.6	0	16.7	25.7
		Right 2	59.7	82.6	63.6	62.8	58.7	62.5	64	82.7	62.8	82.2	151.2	78.6	0	16.7	25.7
	WB	Left 2	87.3	83.2	80.4	84.5	107	92.5	102.7	80.5	60.5	77.9	474.2	82.3	0	13.2	35.8
		Through	87.3	83.2	80.4	84.5	107	92.5	102.7	80.5	60.5	77.9	474.2	82.3	0	13.2	35.8
		Right 2	87.3	83.2	80.4	84.5	107	92.5	102.7	80.5	60.5	77.9	474.2	82.3	0	13.2	35.8

13th	NB	Left 2	104.4	130	184.5	124.6	124.4	124.3	145.1	127.5	141.1	104.2	277.2	125.3	18.8	37.2	44.3
		Through	104.4	130	184.5	124.6	124.4	124.3	145.1	127.5	141.1	104.2	277.2	125.3	18.8	37.2	44.3
		Right 2	104.4	130	184.5	124.6	124.4	124.3	145.1	127.5	141.1	104.2	277.2	125.3	18.8	37.2	44.3
	EB	Left 2	97	105.8	129.7	118.5	127.3	150.7	117.7	128.8	128.2	127.4	263.2	126	0	24.8	43.4
		Through	97	105.8	129.7	118.5	127.3	150.7	117.7	128.8	128.2	127.4	263.2	126	0	24.8	43.4
		Right 2	97	105.8	129.7	118.5	127.3	150.7	117.7	128.8	128.2	127.4	263.2	126	0	24.8	43.4
	SB	Left 2	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	8.9	16.8
		Through	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	8.9	16.8
		Right 2	58.8	41.8	42.2	57.3	40.4	41.2	40.3	41	40.1	41.7	116.8	41.1	0	8.9	16.8
	WB	Left 2	186.7	200.2	204	189.2	170.8	178	169.3	165.4	189.9	189.5	439.5	186.7	0	42.9	64.5
		Through	186.7	200.2	204	189.2	170.8	178	169.3	165.4	189.9	189.5	439.5	186.7	0	42.9	64.5
		Right 2	186.7	200.2	204	189.2	170.8	178	169.3	165.4	189.9	189.5	439.5	186.7	0	42.9	64.5
14th	EB	Through	196.7	190.3	211.5	143.8	201.8	217	187.2	204.6	201.8	188.3	355.6	196.8	16.5	48.5	67.6
		Right 2	196.7	190.3	211.5	143.8	201.8	217	187.2	204.6	201.8	188.3	355.6	196.8	16.5	48.5	67.6
	SB	Left 2	126.5	121.6	127.3	104.7	102.7	106.6	108.4	124.8	105.8	106.4	305.1	118.5	37.9	39	40.2
		Through	126.5	121.6	127.3	104.7	102.7	106.6	108.4	124.8	105.8	106.4	305.1	118.5	37.9	39	40.2
		Right 2	122.5	117.6	123.3	100.7	98.7	102.6	104.4	120.8	101.7	102.4	301.1	114.5	33.8	34.6	40.1
	WB	Left 2	216.9	215.6	177.2	215.4	235.3	182.2	178.7	193.4	254.9	177.2	299.9	198.1	0	28.1	65.8
		Through	216.9	215.6	177.2	215.4	235.3	182.2	178.7	193.4	254.9	177.2	299.9	198.1	0	28.1	65.8
Florida	EB	Through	271.3	81.8	100.4	100.1	112.9	100.2	127.4	82	84.6	85.6	339.7	108.2	0	24.8	46
	WB	Through	225.1	212.4	153.6	242.9	152.2	167.4	146.7	197	163.5	174.3	439.5	192.9	0	34.5	67.9
		Right 1	233	220.3	161.5	250.8	159.6	174	154.6	203.2	171.4	182.2	447.5	200.8	0	28.9	70.8
Starburst	NB	Right 1	102.9	97.4	86.1	102.2	108.9	104.1	101	103.4	106.4	106.3	174.6	103.2	37.3	37.4	33.6
		Right 2	102.9	97.4	86.1	102.2	108.9	104.1	101	103.4	106.4	106.3	174.6	103.2	37.3	37.4	33.6
	NEB	Through	84.4	82	86.1	99.2	101.9	81.1	81.3	94.8	63.3	62.6	170.7	82.3	17.8	29.8	30.2
		Right 1	84.4	82	86.1	99.2	101.9	81.1	81.3	94.8	63.3	62.6	170.7	82.3	17.8	29.8	30.2
	EB	Left 1	268.3	266.5	266	267.1	267	266.3	267.6	201.7	168.3	86.2	286.4	266.5	59.5	91.7	91.8
		Through	218	33	17.3	217.1	186.6	146.4	217.1	18.7	14.6	15	236.6	180.4	0	17.1	52.8
		Right 3	218	33	17.3	217.1	186.6	146.4	217.1	18.7	14.6	15	236.6	180.4	0	17.1	52.8
	SWB	Through	250.5	248.7	248.1	252.5	250.6	249.4	252.7	251	253.3	250.3	281.8	250.8	93.2	100	87.9
		Right 1	250.5	248.7	248.1	252.5	250.6	249.4	252.7	251	253.3	250.3	281.8	250.8	93.2	100	87.9
	WB	Through	495.9	475.3	490.6	484.4	322	492.8	389	427.4	384.8	494.4	532.9	438	103.4	130.2	136
		Right 3	495.9	475.3	490.6	484.4	322	492.8	389	427.4	384.8	494.4	532.9	438	103.4	130.2	136
Bladensburg/Maryland	NEB	Left 2	59.8	60	58.6	58.1	43.7	59.8	42	57.7	57.7	45	190.9	58.1	0	8	19.3
		Through	59.8	60	58.6	58.1	43.7	59.8	42	57.7	57.7	45	190.9	58.1	0	8	19.3
		Right 2	59.8	60	58.6	58.1	43.7	59.8	42	57.7	57.7	45	190.9	58.1	0	8	19.3
	SEB	Left 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58.5	0	13.1	20.2
		Through	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58.5	0	13.1	20.2
		Right 2	42.7	43.4	61.5	61.2	42.7	44.2	57.9	57.7	63.5	41.6	152.8	58.5	0	13.1	20.2
	SWB	Left 2	105	120	194.1	337.2	89.2	306.1	461	187	136.7	319.5	606	236.5	0	39.4	86.9
		Through	105	120	194.1	337.2	89.2	306.1	461	187	136.7	319.5	606	236.5	0	39.4	86.9
		Right 2	105	120	194.1	337.2	89.2	306.1	461	187	136.7	319.5	606	236.5	0	39.4	86.9
	NWB	Left 2	77.8	79.3	64.2	60.5	62.7	61.6	63.1	62.8	60.4	61.3	177.7	62.6	16.9	18.7	24
		Through	77.8	79.3	64.2	60.5	62.7	61.6	63.1	62.8	60.4	61.3	177.7	62.6	16.9	18.7	24
		Right 2	77.8	79.3	64.2	60.5	62.7	61.6	63.1	62.8	60.4	61.3	177.7	62.6	16.9	18.7	24
16th	NB	Left 2	108.9	109	108.1	104.3	106.5	107.1	126.6	125.3	108.8	97.9	297.6	108	18.1	30.6	39.4
		Through	108.9	109	108.1	104.3	106.5	107.1	126.6	125.3	108.8	97.9	297.6	108	18.1	30.6	39.4
		Right 2	108.9	109	108.1	104.3	106.5	107.1	126.6	125.3	108.8	97.9	297.6	108	18.1	30.6	39.4
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	43.3	0	0	0.2	1.9
		Through	57.7	61.2	42.1	42.3	60.1	44.2	44.8	42.3	58.8	62.1	147.1	51.9	0	7.7	19
		Right 2	40.7	46.2	26.3	27	45	27.4	27.6	26.7	43.7	47	132.1	31.7	0	4.2	14
	SB	Left 2	19.7	38.1	24	37.2	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.3	9.2
		Through	19.7	38.1	24	37.2	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.3	9.2
		Right 2	19.7	38.1	24	37.2	18.5	19	19	18.3	17.6	18	63.1	19.3	0	3.3	9.2
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	59	0	0	0.5	3.6
		Through	385.5	210.4	190.2	423.1	164.1	220.4	207	235.4	170.2	339.6	659.2	252.3	0	62.5	94.2
		Right 2	385.5	210.4	190.2	423.1	164.1	220.4	207	235.4	170.2	339.6	659.2	252.3	0	62.5	94.2
17th	EB	Left 2	27.3	18.2	28.9	18.8	19.3	38.3	27.3	40.9	19.6	21.3	98.1	20.4	0	3.7	10.8
		Through	84.5	85.8	93.2	86.5	70.1	86.1	68.6	85.6	81.9	82.5	166.7	83.7	0	20.5	30.6
		Right 2	84.5	85.8	93.2	86.5	70.1	86.1	68.6	85.6	81.9	82.5	166.7	83.7	0	20.5	30.6
	SB	Left 2	184.5	190.9	169.8	209	175.3	144.7	169.6	171.9	145.2	182.3	385.2	172.6	38	52.4	60.9
		Through	144.4	164.8	143.7	122	104	126.1	148.3	124.1	134.3	146.7	385.6	127.8	36.6	42	48
		Right 2	132.4	152.8	131.7	110	92	114.1	136.4	112.2	122.3	134.8	373.6	115.9	0	32.6	45.7
	WB	Left 2	17.7	0	18.6	0	0	0	0	14.8	0	18	102.4	15.5	0	1.2	6.1
		Through	720.8	673.2	835.8	723.9	701.7	480.8	877.7	654.9	674.3	586.4	936.3	785.1	61	192	264.1
		Right 2	713.6	666	828.6	716.6	694.5	473.6	870.4	647.7	667.1	579.2	929.1	777.8	54	188	262.8
19th	NB	Left 2	188.6	219.7	320.5	189.1	233	244.8	210.2	194.5	193.4	216	452.9	215.5	61.1	76.6	74.5
		Through	188.6	219.7	320.5	189.1	233	244.8	210.2	194.5	193.4	216	452.9	215.5	61.1	76.6	74.5
		Right 2	188.6	219.7	320.5	189.1	233	244.8	210.2	194.5	193.4	216	452.9	215.5	61.1	76.6	74.5
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	48.2	0	0	0.1	1.6
		Through	56.9	63.1	56.4	60.7	56.5	56.6	56.6	56.5	63.4	56.6	197.1	56.6	0	11.3	22.4
	WB	Through	306.4	280.5	387.4	324.1	303.9	286.7	421.2	255.1	276.5	277.2	640.4	320.7	19.5	84.1	113.6
		Right 2	306.4	280.5	387.4	324.1	303.9	286.7	421.2	255.1	276.5	277.2	640.4	320.7	19.5	84.1	113.6
21st	NB	Left 2	61.1	59	61.4	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14.2	20.7
		Through	61.1	59	61.4	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14.2	20.7
		Right 2	61.1	59	61.4	61.2	61	62.6	58	41.8	60.6	61.2	126.6	61	0	14.2	20.7
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	39	0	0	0.2	1.9
		Through	46	64.6	59.4	44.2	62.1	64.1	63.1	60.6	64.4	61.6	191.2	61.5	0	9.6	21.5
		Right 2	46	64.6	59.4	44.2	62.1	64.1	63.1	60.6	64.4	61.6	191.2	61.5	0	9.6	21.5
	SB	Left 2	42	58.8	41	41	41.4	39.8	42.2	41.7	40.5	61.4	109.1	42.2	0	11.4	17.6
		Through	42	58.8	41	41	41.4	39.8	42.2	41.7	40.5	61.4	109.1	42.2	0	11.4	17.6
		Right 2	42	58.8	41	41	41.4	39.8	42.2	41.7	40.5	61.4	109.1	42.2	0	11.4	17.6
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	59.9	0	0	0.2	2.2
		Through	118.7	145.4	131.7	128.4	148.3	149.1	178.6	133.9	133.2	131.4	438.4	140.2	0	28.5	53.7
		Right 2	118.7	145.4	131.7	128.4	148.3	149.1	178.6	133.9	133.2	131.4	438.4	140.2	0	28.5	53.7
24th	NB	Left 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
		Right 2	39.1	40.4	38.6	39.5	19.2	38.5	39.9	20.4	38.8	39	165	38.6	0	5.9	15.6
	EB	Through	20.1	18.7	19.1	15.2	17.5	18.4	18.1	18.3	17.3	18.6	167.5	18.4	0	2.5	12.2
	WB	Through	109.1	83.2	122.6	89.6	86.9	95.8	94.2	86.4	97.8	124.3	351.7	97.9	0	15.7	38.8
26th	EB	Left 2	0	24.4	18	27	30.3	29.6	30.1	27.2	25.8	19.2	131.4	27.4	0	3	10.2
		Through	38.8	37.1	41.4	20.2	40.4	19	16.8	19.3	19.2	40.1	172.3	21.7	0	3.6	13.5
	SB	Left 2	59	58.8	59.3	43.6	41.4	59.5	41.1	58.1	59.2	40.8	147.4	58	0	12	19.5
		Right 2	46.5	46.2	46.7	31	28.7	46.9	28.5	45.5	46.6	28.2	134.8	45.4	0	6	15.3
	WB	Through	200.9	201.8	182.7	226.8	241.9	210.7	220.1	218	207.7	223.9	303.9	216.5	0	37.4	70
		Right 2	200.9	201.8	182.7	226.8	241.9	210.7	220.1	218	207.7	223.9	303.9	216.5	0	37.4	70
Oklahoma	NEB	Left 3	59.2	56.7	58	60	58.7	62.1	59.2	39.4	43.6	60.8	151	58	0	10	19.2
		Right 1	39.4	36.9	38.2	40.2	38.9	42.3	39.4	19.6	23.8	41	131.3	38.2	0	4.2	12.9
	EB	Through	79	79.1	78.6	78.8	78.8	78.7	79.2	79	79	79	231.8	78.9	0	11	26.2
		Right 3	79	79.1	78.6	78.8	78.8	78.7	79.2	79	79	79	231.8	78.9	0	11	26.2
	WB	Left 1	85.7	97.7	68.8	83.4	63.5	89	68.5	79.1	68.2	80.1	448.2	81	0	11.6	35.3
		Through	85.7	97.7	68.8	83.4	63.5	89	68.5	79.1	68.2	80.1	448.2	81	0	11.6	35.3
East Terminus	EB	Through	0	0	0	0	0	0	0	0	0	0	79.6	0	0	0.3	4.9
	WB	Through	0	0	0	0	0	0	0	0	0	0	233.5	0	0	1.7	10.9

Travel Times for General Traffic for Scenario 2c: 2013 Build AM

Name	TravelTime Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average (s)	Standard Deviation (s)	Min(s)	Max(s)		
EB H	1	6524.8	293.2	114	292.8	116	301.9	111	287.2	118	299.2	112	294.7	147	287.8	134	290.1	147	294.7	139	296.2	124	293.6	84.6	194.1	633.1	15.2	22.9
EB H: Union to Kaiser	2	708.4	21.3	404	21.2	413	21.4	398	20.5	406	21.1	420	20.9	455	21.4	437	21.2	452	21.2	432	21.4	423	21.1	6.4	16.9	51.4	22.9	28.6
EB H: Kaiser to 3rd	3	592.9	22.7	430	21	432	20.7	413	21.5	419	21.2	427	23.3	463	23.8	442	24.4	462	21.4	451	23.1	435	22.3	12.3	14	121.5	18.1	28.9
EB H: 3rd to 4th	4	426.4	14.1	356	14.8	355	14.1	339	14.5	342	14.3	351	14.1	384	14.2	340	13.6	356	13.9	357	13.7	357	14.1	6.2	10.3	83.4	20.6	28.3
EB H: 4th to 5th	5	595	24.7	376	24.7	371	25.9	371	25.9	371	25.2	381	25.3	418	24	383	23.6	387	25.9	373	27.9	388	25.3	17.1	14	270.1	16	28.9
EB H: 6th to 7th	6	651.5	24.2	357	24.7	354	25.9	345	25.3	348	26	370	25.4	413	25.5	380	25.3	383	25.8	361	25.2	378	25.3	12.9	15.8	115.2	17.6	28.1
EB H: 7th to 8th	7	334	21.4	354	19.5	351	23.2	343	20.9	351	20.1	379	21.7	408	21.7	374	20.1	384	21.3	365	20.7	378	21.1	16.1	7.9	129.3	10.8	28.7
EB H: 8th to 9th	8	339.8	14.4	351	13.9	358	14.4	353	14.2	350	14	371	14.3	403	14.2	370	13.8	385	14.5	357	14.2	366	14.2	10.3	8	77.6	16.3	29
EB H: 9th to 10th	9	315.6	9.6	351	10.8	370	10.7	349	10.6	351	11.3	372	10.2	397	10.3	368	10.2	381	9.8	375	10.8	390	10.4	6.6	7.5	50.6	20.7	28.7
EB H: 10th to 11th	10	315.6	13.6	360	14.4	371	13.2	351	13	370	13.7	392	14.1	409	14.3	382	15.4	387	14.4	384	14.4	399	14	10.9	7.4	71.9	15.4	28.9
EB H: 11th to 12th	11	360.1	15.2	375	15.1	392	15.1	372	14.5	383	14.9	418	15.1	425	15	394	15.6	398	16.6	397	14.7	404	15.2	10.8	8.4	75.7	16.2	29.2
EB H: 12th to 13th	12	557.6	24.5	373	23.7	386	25.8	378	25	388	26.1	418	26.5	430	24.7	389	24.1	400	25.9	403	25.4	403	25.2	13.7	13.3	112.8	15.1	28.7
EB H: 13th to 14th	13	781.2	39.5	391	40.1	389	40.6	369	37.6	383	40.2	402	39.9	418	40.2	384	42.4	401	40.1	393	40.3	398	40.1	20.8	18.9	136.1	13.3	28.1
EB H: 14th to Starburst (incl ped sig)	14	511.7	24.6	311	23.8	319	24.9	302	25	315	24.6	313	26.4	355	24.7	346	24.2	315	24.7	327	24.6	318	24.8	17.4	12.3	101.1	14.1	28.4
WB H	15	6427.1	317.8	764	293.4	693	294.2	696	282.4	685	283.2	696	312.5	691	273.3	676	285.5	705	285.2	706	283.3	654	291.4	58.1	192	627.3	15	22.8
WB H: Starburst to 14th (incl. ped sig)	16	480.6	27.4	1302	26.5	1280	25.5	1268	27.9	1261	25	1227	25.6	1227	24.2	1272	26.3	1266	26.1	1253	26.6	1228	26.1	18.7	11.5	125.7	12.6	28.4
WB H: 14th to 13th	17	799.1	30.3	1174	30.8	1141	30.9	1117	31.4	1123	30.7	1112	30.1	1096	29	1129	30.6	1128	31.5	1104	31.9	1092	30.7	15.9	19.2	114.6	17.7	28.4
WB H: 13th to 12th	18	554.2	17.7	1180	17.4	1145	17.2	1131	17.8	1125	18.2	1115	17.9	1097	17.9	1125	17.6	1150	17	1103	17.1	1085	17.6	6.6	13.1	71	21.5	28.9
WB H: 12th to 11th	19	364	21	1242	20.3	1184	19.9	1189	19	1181	19.1	1155	20.3	1152	19.9	1176	20.3	1216	19.6	1148	19.1	1127	19.9	14.9	8.5	92.6	12.5	29.3
WB H: 11th to 10th	20	319.4	12.1	1247	12.2	1198	11.7	1207	12	1195	11.9	1176	12.2	1179	11.9	1184	12.3	1224	12.2	1181	12	1126	12	8.1	7.5	56.1	18.1	29.1
WB H: 10th to 9th	21	315.3	11.4	1251	10.2	1208	10.2	1211	10.1	1193	9.9	1184	10.4	1180	10	1193	11.2	1231	10.2	1196	10.3	1122	10.4	5.4	7.4	71.7	20.7	29
WB H: 9th to 8th	22	333.3	19.2	1270	15.6	1225	17	1221	16.1	1227	16.1	1200	16.2	1198	16	1189	18.5	1263	15.4	1220	17.5	1140	16.8	14.3	7.9	106.5	13.5	28.7
WB H: 8th to 7th	23	348.1	14.5	1265	13.4	1239	13.8	1240	13.3	1237	13.8	1218	13.6	1241	13.7	1192	13.8	1257	13.1	1245	13.4	1156	13.6	8.1	8.2	64.5	17.5	28.9
WB H: 7th to 6th	24	641	36.4	1270	28.3	1249	26.1	1249	27.2	1268	25.4	1236	33.7	1251	27.1	1197	26.8	1269	25.9	1252	24.1	1161	28.2	16.3	15.7	146.4	15.5	27.8
WB H: 6th to 4th	25	599.5	52.9	1249	47.4	1211	46	1230	38.6	1239	41.8	1201	55.1	1218	36.1	1175	40.2	1251	42.2	1222	40.9	1157	44.1	24.1	14.6	158.1	9.3	28
WB H: 4th to 3rd	26	413.5	39	1267	37.6	1241	40.2	1266	33.7	1264	37.1	1229	38.5	1248	33.6	1212	32.7	1252	35	1231	36.5	1181	36.4	26.3	9.9	212.2	7.7	28.5
WB H: 3rd to Kaiser	27	589.2	16.1	1262	16.1	1223	16.2	1227	16.2	1245	16.1	1225	16.1	1228	16.1	1207	16.1	1228	16.1	1224	16.1	1174	16.1	0.8	14.2	25.9	25	28.3

WB H: Kaiser to Union	28	647.4	18.8	1304	19.2	1241	18.3	1231	18.6	1267	18.8	1230	18.7	1241	18.6	1222	18.7	1266	18.6	1256	18.5	1203	18.7	3.5	15.1	38.9	23.6	29.1
EB Benning	29	4103	147.3	351	148.1	351	148.1	332	146.5	334	145.5	327	146.4	353	142.1	362	145.7	339	146.4	333	147.1	346	146.3	39	101.5	460.8	19.1	27.6
EB Benning: Starbust to 16th	30	621.7	22.7	511	21.9	523	21.9	505	22.8	499	22	503	21.7	525	21.5	550	21.6	512	21.5	502	22.6	511	22	12.7	14.8	121	19.3	28.6
WB Benning: 16th to 17th	31	636.9	27	529	27.1	555	27.5	518	26.3	524	25.3	538	26.6	525	24.7	564	26.5	523	26.1	516	25.5	524	26.2	13.4	15.2	95.8	16.6	28.6
EB Benning: 17th to 19th	32	827.2	29	480	29.4	484	29.2	455	29.5	454	28.9	471	28.6	460	28.3	512	28.7	464	29.2	463	28.5	471	28.9	13	19.8	109.7	19.5	28.5
EB Benning: 19th to 21st	33	671.8	22.6	726	23.3	714	22.4	715	22.2	704	23.3	713	22.7	659	22.5	757	22.3	694	22.7	669	23	721	22.7	9.5	16	101.3	20.2	28.6
EB Benning: 21st to 24th	34	583.1	18.2	735	18.3	715	18.1	733	17.8	717	18	714	18.1	667	18.4	755	18.2	701	17.6	676	18.3	709	18.1	6.7	13.7	56.1	22	29.1
EB Benning: 24th to 26th	35	513.5	15.9	732	15.5	704	16	739	15.3	705	16	688	15.4	661	15	730	15.6	693	15.1	669	15.8	707	15.6	4.9	12.1	51.2	22.4	29
EB Benning: 26th to OK	36	237.9	8.1	743	8.1	709	8.2	755	8.5	710	8.3	702	8.3	669	8	745	8.1	706	8.3	681	8.2	723	8.2	5.4	5.5	70.4	19.8	29.6
WB Benning	37	4172.8	201.3	1309	196.2	1324	200.9	1315	208.9	1361	185.4	1278	189.9	1292	214.9	1340	190.6	1290	189.5	1314	200.7	1296	197.9	45.5	107.1	511.5	14.4	26.6
WB Benning: OK to 26th	38	273.5	11.8	2143	11.9	2185	11.3	2160	12.6	2142	12.5	2138	12.1	2177	11.8	2167	12.1	2144	11.5	2220	12.8	2121	12	9.1	6.4	80.3	15.5	29.3
WB Benning: 26th to 24th	39	496.1	15.7	1967	15.1	1986	16	1986	15.2	1962	15	1928	15.6	2007	15.5	1991	15.3	1947	15.3	2026	16.1	1955	15.5	6.2	11.8	61.3	21.8	28.8
WB Benning: 24th to 21st	40	583	20	1961	20.7	1987	20.6	1986	19.9	1970	20.9	1942	20.2	2003	21.2	1999	20.3	1943	20	2018	19.9	1961	20.4	8.9	13.9	104.9	19.5	28.6
WB Benning: 21st to 19th	41	598.6	27.8	1968	26.9	1973	30.7	1964	29.2	1991	26.6	1918	27.3	1984	34.5	1991	26.9	1937	27.1	1998	26.9	1958	28.4	14.1	14.6	149.1	14.4	28
WB Benning: 19th to 17th	42	875.1	42.5	1895	42.3	1921	48.6	1909	46.3	1943	39	1856	37.7	1939	57.5	1956	38.9	1885	42	1958	41.4	1888	43.7	22.8	21.3	190.5	13.7	28
WB Benning: 17th to 16th	43	655.6	31.9	1884	29.3	1909	28.2	1864	35	1926	24.9	1864	27.8	1868	27.8	1882	28.8	1862	27	1895	32.4	1883	29.4	15.6	16.1	121.8	15.2	27.8
WB Benning: 16th to Starburst	44	677.6	46.2	1830	44.7	1854	44.6	1817	46.9	1881	42.6	1802	44.6	1792	43.9	1831	44.3	1799	42.6	1812	45.9	1807	44.6	25	16.5	400.3	10.4	27.9
EB Corridor	45	9923.5	440.5	86	436.6	87	448	80	434.3	88	450.6	80	441.5	101	427.3	97	431.2	102	438	99	441.5	93	438.6	152.2	289.1	1026.9	15.4	23.4
WB Corridor	46	10604.3	523.3	456	492.6	403	499.1	429	495.4	411	475.2	390	506.5	424	485.5	393	482.2	429	478.1	424	484.8	385	492.8	96.1	315.5	1023.9	14.7	22.9

Travel Times for Streetcar for Scenario 2c: 2013 Build AM

Name	TravelTime Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average(s)	Standard Deviation (s)	Min(s)	Max(s)		
EB H	1	6524.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Union to Kaiser	2	708.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Kaiser to 3rd	3	592.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 3rd to 4th	4	426.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 4th to 5th	5	595	63.6	6	62.8	6	64.4	6	62.4	6	62.9	6	64.9	6	64	6	64.1	6	62.3	6	64.3	6	63.6	7.2	55.3	81	6.4	7.3
EB H: 6th to 7th	6	651.5	28.9	6	22.8	6	30.8	6	31.4	6	29.2	6	32.4	6	23.3	6	29.7	6	29.4	6	28.9	6	28.7	17.6	17.8	82.6	15.5	25
EB H: 7th to 8th	7	334	61.8	6	59.9	6	74.2	6	67.8	6	55.7	6	82.9	6	67.6	6	68.6	6	69	6	57.2	6	66.5	18.3	45.9	116.3	3.4	5
EB H: 8th to 9th	8	339.8	12.9	6	22	6	12.9	6	15.7	6	16.2	6	23.2	6	12.9	6	14.3	6	16.9	6	16.4	6	16.3	8.6	12.1	44.5	14.2	19.2
EB H: 9th to 10th	9	315.6	23.8	6	16.8	6	13.7	6	28	6	9.8	6	25.7	6	27.8	6	17.7	6	21	6	16.5	6	20.1	13.2	8.6	48.1	10.7	25
EB H: 10th to 11th	10	315.6	13.6	6	17.4	6	22	6	12.9	6	25.6	6	11.6	6	13.9	6	20.4	6	16.7	6	22	6	17.6	13.3	8.6	67.8	12.2	25
EB H: 11th to 12th	11	360.1	16.4	6	15.2	6	12.9	6	12.3	6	21.9	6	12.1	6	15.3	6	15.7	6	18	6	19.8	6	16	9.2	9.8	37.6	15.3	25
EB H: 12th to 13th	12	557.6	70.3	6	65.7	6	78.6	6	72.6	6	73.8	6	75.4	6	66	6	75.8	6	69.2	6	67.1	6	71.4	17	52.6	108.9	5.3	7.2
EB H: 13th to 14th	13	781.2	46.5	6	38.6	6	53.1	6	45.6	6	48.9	6	59.9	6	46.1	6	57.1	6	52.6	6	52.9	6	50.1	19.3	24.1	89.2	10.6	22.1
EB H: 14th to Starburst (incl ped sig)	14	511.7	25.5	5	45	6	24.9	6	25.9	6	25.6	6	15	6	24.1	6	34	6	24.5	6	24.4	6	26.9	20.8	14	75.9	13	25
WB H	15	6427.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: Starburst to 14th (incl. ped sig)	16	480.6	20.7	6	19.6	6	20.2	6	19.9	6	19.1	6	19.3	5	20.4	6	19.7	6	25.6	6	19.5	6	20.4	11.5	13.5	50.9	16.1	24.2
WB H: 14th to 13th	17	799.1	71.7	6	61.9	6	65.8	6	79.5	6	66.3	6	67.3	5	74.7	6	69.4	6	67.4	6	76	6	70	12.2	57.9	97.8	7.8	9.4
WB H: 13th to 12th	18	554.2	21.2	6	21.4	6	23.3	6	21	6	21.4	6	24.1	5	23.5	6	21.6	6	21.4	6	20.9	6	22	4.2	18.9	39.8	17.2	20
WB H: 12th to 11th	19	364	12.9	6	13.2	6	11.7	6	13.1	6	13.2	6	11.6	5	11.3	6	13.7	6	13.7	6	12.7	6	12.7	4.1	9.9	23.7	19.5	25
WB H: 11th to 10th	20	319.4	9.3	6	9.5	6	9.7	6	9.7	6	9.6	6	9	5	10.1	6	9.5	6	10.6	6	9.6	6	9.7	1.2	8.7	13.8	22.5	25
WB H: 10th to 9th	21	315.3	9.1	6	9.7	6	9.1	6	8.7	6	8.8	6	8.6	5	8.9	6	8.9	6	8.8	6	8.9	6	9	0.9	8.6	14.7	23.9	25
WB H: 9th to 8th	22	333.3	47.7	6	46.1	6	49.1	6	48.3	6	47.3	6	48.3	5	48.2	6	48.3	6	50.2	6	51.5	6	48.5	3.6	43.9	67.2	4.7	5.2
WB H: 8th to 7th	23	348.1	48	6	50.1	6	45.5	6	42.6	6	50.8	6	47	5	48	6	47.9	6	40	6	44.2	6	46.4	9.9	19	60.9	5.1	12.5
WB H: 7th to 6th	24	641	25.4	6	27.5	6	21.9	6	22.5	6	22	6	24.5	5	22.7	6	23.4	6	22.5	6	22.5	6	23.5	5.4	18.2	56.7	18.6	24
WB H: 6th to 4th	25	599.5	69.7	6	72.5	6	77.3	6	72.8	6	72.7	6	85.5	5	71.9	6	70.3	6	71.7	6	71.1	6	73.3	7	59.2	103.9	5.6	6.9
WB H: 4th to 3rd	26	413.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: 3rd to Kaiser	27	589.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WB H: Kaiser to Union	28	647.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB Benning	29	4103	249.3	6	240.4	6	239.4	6	244.1	6	232.2	6	233.8	6	236.4	6	223.8	6	236.4	6	237.4	6	237.3	19.3	206.3	304.9	11.8	13.6
EB Benning: Starbust to 16th	30	621.7	69.9	6	68.8	6	70.9	6	72.7	6	70.2	6	70.6	6	79.6	6	62.6	6	65.5	6	65.2	6	69.6	17.6	57.4	121	6.1	7.4
WB Benning: 16th to 17th	31	636.9	22.3	6	18	6	19.2	6	18.3	6	17.8	6	18.1	6	19.7	6	18.1	6	19.1	6	18.3	6	18.9	3.9	17.4	44.4	23	25
EB Benning: 17th to 19th	32	827.2	28.5	6	32.5	6	29.6	6	29.4	6	26	6	26	6	24.3	6	25.2	6	32.5	6	35	6	28.9	9	22.6	59.4	19.5	25
EB Benning: 19th to 21st	33	671.8	82.8	6	73.9	6	71.4	6	81.2	6	74.7	6	75.8	6	69.9	6	73.3	6	77.3	6	74.3	6	75.5	13.6	58.9	101.3	6.1	7.8
EB Benning: 21st to 24th	34	583.1	17.1	6	17.2	6	18	6	16	6	16	6	16.7	6	16	6	16	6	16.2	6	16.8	6	16.6	1.6	15.9	24.5	23.9	25
EB Benning: 24th to 26th	35	513.5	14.7	6	15.8	6	16.2	6	14.9	6	15.7	6	15	6	15.1	6	16.2	6	14.4	6	16.2	6	15.4	2.2	14	24.7	22.7	25
EB Benning: 26th to OK	36	237.9	13.3	6	13.7	6	13.4	6	11.1	6	11.2	6	11	6	11.1	6	11.9	6	10.9	6	11	6	11.9	3.4	10.6	27.6	13.6	15.3
WB Benning	37	4172.8	376	6	388.2	6	375.1	6	372.1	6	375.9	6	376.9	5	378.5	6	361.7	6	360.4	6	374.4	6	373.9	21.9	280.8	461.4	7.6	10.1
WB Benning: OK to 26th	38	273.5	51.7	6	54.5	6	49.8	6	50.9	6	50.9	6	55.6	6	53.1	6	53	6	54.8	6	52.4	6	52.7	5.4	46.2	70.9	3.5	4
WB Benning: 26th to 24th	39	496.1	24.8	6	17.7	6	18.7	6	17.9	6	24.6	6	15.1	6	21.1	6	18.1	6	17.6	6	18.6	6	19.4	7.6	14.2	50.4	17.4	23.8
WB Benning: 24th to 21st	40	583	23.5	6	21.3	6	29.4	6	23.4	6	21.2	6	26.3	6	28	6	25	6	23.4	6	24	6	24.6	8.1	15.9	42	16.2	25
WB Benning: 21st to 19th	41	598.6	40.7	6	37.1	6	43.2	6	41.7	6	34.4	6	44.4	6	37.7	6	40.7	6	37.9	6	35.9	6	39.4	10.4	20.5	72.6	10.4	19.9
WB Benning: 19th to 17th	42	875.1	72.4	5	75.7	6	65.1	5	74.3	5	63.2	5	63.4	5	75.1	6	65	6	62.7	6	75	5	69.2	15.2	59	124.4	8.6	10.1
WB Benning: 17th to 16th	43	655.6	36.7	5	40.1	5	27.6	6	33.4	5	31.6	5	33.8	6	31.4	5	30.9	5	40.1	5	28.5	5	33.3	13.4	17.9	61.1	13.4	25
WB Benning: 16th to Starburst	44	677.6	129.1	6	131.7	6	136.6	6	121.2	6	143.4	6	146.5	5	133.1	6	129.5	6	127.4	6	134.5	6	133.1	23.8	69.8	174.8	3.5	6.6
EB Corridor	45	9923.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB Corridor	46	10604.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Movement Group Delay for Scenario 2c: 2013 Opening Year Build PM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	8.9	A
Kaiser Garage	20	1.2	A
3rd	30	25.4	C
4th	40	14.8	B
6th	60	16.7	B
7th	70	7.6	A
8th	80	19.2	B
9th	90	5.3	A
10th	100	8.7	A
11th	110	8.4	A
12th	120	5.6	A
13th	130	15.9	B
14th	140	45	D
Florida	150	10.4	B
Starburst	151	15.9	B
Bladensburg/Maryland	152	9.2	A
16th	160	8.3	A
17th	170	17	B
19th	190	9	A
21st	210	8.3	A
24th	240	2.3	A
26th	260	5	A
Oklahoma	270	3.1	A
East Terminus	271	0.5	A

Queue Lengths for Scenario 2c: 2013 Opening Year Build PM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	81	93.1	82.5	98.4	96.3	62.9	99	80.4	81.7	62.2	191	81.7	17.1	22.7	29
		Right 2	81	93.1	82.5	98.4	96.3	62.9	99	80.4	81.7	62.2	191	81.7	17.1	22.7	29
	EB	Through	66	80.7	78.2	65	86.1	81.1	83.8	84.9	80.5	82.9	213.7	82	0	13.5	28.3
		Right 2	66	80.7	78.2	65	86.1	81.1	83.8	84.9	80.5	82.9	213.7	82	0	13.5	28.3
	WB	U-turn Marker	82.8	83.4	61.4	118.8	104	104.6	80.9	208.8	124.4	79.3	274.8	108.2	18	29.7	39.7
		Left 2	82.8	83.4	61.4	118.8	104	104.6	80.9	208.8	124.4	79.3	274.8	108.2	18	29.7	39.7
		Through	17.6	17.6	18.4	16.7	17.2	17	0	17.2	17.5	18.4	87.4	17.5	0	1.5	6.6
Kaiser Garage	NB	Right 2	0	0	0	0	0	0	0	0	0	0	57	0	0	0.2	2
	EB	Through	0	0	0	0	0	0	0	0	0	0	125.7	0	0	3.6	20.4
		Right 2	0	0	0	0	0	0	0	0	0	0	43.9	0	0	0	0.8
	WB	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3rd	NB	Left 2	86.4	101.2	113.2	85.9	79.9	101.5	112.2	211.8	134.7	236	346.3	124.7	18.6	35.4	46.9
		Through	86.4	101.2	113.2	85.9	79.9	101.5	112.2	211.8	134.7	236	346.3	124.7	18.6	35.4	46.9
		Right 2	86.4	101.2	113.2	85.9	79.9	101.5	112.2	211.8	134.7	236	346.3	124.7	18.6	35.4	46.9
	EB	Left 2	281.6	333.8	264.5	311.7	314.7	314	378.6	283.9	364.6	360.9	623.8	319.4	47.3	96.2	115.4
		Through	233.8	261.5	220.7	253.6	257.4	253.5	302.3	235.6	293.6	284.2	623.8	260.8	0	52.7	94
		Right 2	281.6	333.8	264.5	311.7	314.7	314	378.6	283.9	364.6	360.9	623.8	319.4	47.3	96.2	115.4
	SB	Left 2	194.6	321.7	303.4	250	217	229.6	179	170.3	207.3	271	414.7	238	39.4	67.1	81.3
		Through	194.6	321.7	303.4	250	217	229.6	179	170.3	207.3	271	414.7	238	39.4	67.1	81.3
		Right 2	185.2	312.3	294	240.5	207.6	220.1	169.5	160.8	197.8	261.5	405.2	228.5	30	59.4	79.8
	WB	Left 2	179.1	213.4	174.1	180	176.1	175.9	179.8	189.9	191.2	177	363.6	187.4	48	60.1	65
		Through	179.1	213.4	174.1	180	176.1	175.9	179.8	189.9	191.2	177	363.6	187.4	48	60.1	65
		Right 2	179.1	213.4	174.1	180	176.1	175.9	179.8	189.9	191.2	177	363.6	187.4	48	60.1	65
4th	EB	Through	173	188.8	154.3	173.8	192.8	190.4	200.9	185.9	212.5	191.2	430.8	188.4	0	35.4	64.9
		Right 2	173	188.8	154.3	173.8	192.8	190.4	200.9	185.9	212.5	191.2	430.8	188.4	0	35.4	64.9
	SB	Left 2	416.8	279.9	214.3	218.1	299.3	428.6	296.1	258.2	256.7	328	461.7	318.5	61.8	94	102.4
		Through	416.8	279.9	214.3	218.1	299.3	428.6	296.1	258.2	256.7	328	461.7	318.5	61.8	94	102.4
		Right 2	92.6	42.7	35.2	33.6	83.3	91.8	129.2	46.2	39.2	45.5	442.7	45.6	0	10.2	48.2
	WB	Left 2	64.8	81.9	82.1	83.6	79.6	69.7	62.9	74.2	81.6	65.7	224.4	78.6	0	11.9	26.7
		Through	64.8	81.9	82.1	83.6	79.6	69.7	62.9	74.2	81.6	65.7	224.4	78.6	0	11.9	26.7
6th	NB	Left 2	348.7	272.3	236.3	234.7	245.2	210	238.2	203.4	256.7	257.9	538.1	254.8	60.4	83.3	87.2
		Through	348.7	272.3	236.3	234.7	245.2	210	238.2	203.4	256.7	257.9	538.1	254.8	60.4	83.3	87.2
		Right 2	337.1	260.7	224.7	223.1	233.6	198.4	226.6	191.8	245.1	246.3	526.5	243.2	48.8	74.3	84.7
	EB	Left 2	214	261.7	203.8	212.5	247	237.6	307	213.5	277.1	242.4	563.3	241.7	0	55.4	87.2
		Through	214	261.7	203.8	212.5	247	237.6	307	213.5	277.1	242.4	563.3	241.7	0	55.4	87.2
	WB	Through	92.5	87.5	92.4	83.1	86.1	89.3	91.8	74.7	127.3	80.9	233.8	88	0	16.4	33
		Right 2	92.5	87.5	92.4	83.1	86.1	89.3	91.8	74.7	127.3	80.9	233.8	88	0	16.4	33
7th	EB	Left 2	165.2	155.3	168.9	158.4	173.4	157	165	157.7	209.2	201.1	544.8	171.9	0	27.5	68.2
		Through	165.2	155.3	168.9	158.4	173.4	157	165	157.7	209.2	201.1	544.8	171.9	0	27.5	68.2
		Right 2	165.2	155.3	168.9	158.4	173.4	157	165	157.7	209.2	201.1	544.8	171.9	0	27.5	68.2
	SB	Left 2	62.6	83.1	85.5	82.3	67.5	103.8	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Through	62.6	83.1	85.5	82.3	67.5	103.8	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
		Right 2	62.6	83.1	85.5	82.3	67.5	103.8	65.4	100.1	82.2	87.9	186.6	84.4	0	21.2	30
	WB	Left 2	21.9	19.2	37	18.9	19.9	21	37.2	19.3	19.2	36.8	103.6	20.3	0	3.6	10.3
		Through	21.9	19.2	37	18.9	19.9	21	37.2	19.3	19.2	36.8	103.6	20.3	0	3.6	10.3
		Right 2	21.9	19.2	37	18.9	19.9	21	37.2	19.3	19.2	36.8	103.6	20.3	0	3.6	10.3
8th	NB	Left 2	41.1	40.9	41	40.3	40.3	40.8	40.1	40	40.5	41.6	49.4	40.7	0	11.1	69.8
		Through	41.1	40.9	41	40.3	40.3	40.8	40.1	40	40.5	41.6	49.4	40.7	0	11.1	69.8
		Right 2	47.4	47.3	46.6	47.3	46.2	47.8	46.3	47.7	46	47	49.7	47.2	0	9.9	66.2
	EB	Left 2	40.1	40.9	41.3	39.5	39.4	40.7	38.7	42.3	40.8	41.2	49.7	40.7	0	6.5	52.5
		Through	40.1	40.9	41.3	39.5	39.4	40.7	38.7	42.3	40.8	41.2	49.7	40.7	0	6.5	52.5
		Right 2	40.1	40.9	41.3	39.5	39.4	40.7	38.7	42.3	40.8	41.2	49.7	40.7	0	6.5	52.5
	SB	Left 2	41.5	41.1	44	41.3	43.4	41	41.8	41.1	41.7	42.8	49.7	41.7	0	13.5	95.6
		Through	41.5	41.1	44	41.3	43.4	41	41.8	41.1	41.7	42.8	49.7	41.7	0	13.5	95.6
		Right 2	45.6	46.2	49.2	42.1	34.5	48.3	41.9	46.7	46.5	49.1	49.7	46.7	0	9.3	93.9
	WB	Left 2	46.8	47	46.6	46.2	46.7	46.8	46.5	46.6	46.3	46.6	49.6	46.6	0	7.6	44.2
		Through	46.8	47	46.6	46.2	46.7	46.8	46.5	46.6	46.3	46.6	49.6	46.6	0	7.6	44.2
		Right 2	46.8	47	46.6	46.2	46.7	46.8	46.5	46.6	46.3	46.6	49.6	46.6	0	7.6	44.2
9th	NB	Left 2	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
		Through	42.6	42.1	57.2	56.3	42.3	60.7	40.4	41.5	41.6	59.7	127.5	42.6	0	10.6	18.1
10th	NB	Left 2	63.9	116.8	102	109.6	106.3	105.3	127.4	96.7	85.1	85.9	211.8	103.5	17.5	26	34.9
		Right 2	63.9	116.8	102	109.6	106.3	105.3	127.4	96.7	85.1	85.9	211.8	103.5	17.5	26	34.9
	EB	Through	63.6	60.4	60	59.8	59.4	59.4	61.3	61.5	70.8	75.5	331.7	61.5	0	12.7	24
		Right 2	63.6	60.4	60	59.8	59.4	59.4	61.3	61.5	70.8	75.5	331.7	61.5	0	12.7	24
	SB	Left 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
		Through	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
		Right 2	81.6	81.6	79.8	84.9	82.1	62.7	84.7	85.7	105.1	100.7	278.3	84.6	16.3	21.8	31.5
	WB	Left 2	64.2	72.5	64.1	71.2	71.1	71.6	72.3	71	72.2	72.8	164.5	71.4	0	10.7	23.7
		Through	64.2	72.5	64.1	71.2	71.1	71.6	72.3	71	72.2	72.8	164.5	71.4	0	10.7	23.7
11th	NB	Left 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Through	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
		Right 2	36.5	41.3	39.7	41.8	41	40.5	38.5	39.9	41.3	39.2	106.7	40.2	0	8.2	15
	EB	Left 2	80.6	76.2	82.3	92.2	84.3	93.6	95.4	94.4	114.3	92.9	333.5	88.6	0	21.8	39.3
		Through	80.6	76.2	82.3	92.2	84.3	93.6	95.4	94.4	114.3	92.9	333.5	88.6	0	21.8	39.3
		Right 2	80.6	76.2	82.3	92.2	84.3	93.6	95.4	94.4	114.3	92.9	333.5	88.6	0	21.8	39.3
	SB	Left 2	127.4	126.6	128.9	122.1	131	105.6	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
		Through	127.4	126.6	128.9	122.1	131	105.6	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
		Right 2	127.4	126.6	128.9	122.1	131	105.6	123.5	144.7	124.8	139.5	321.1	126.6	17.9	35	45.3
	WB	Left 2	52.1	60.5	50.2	63.8	59	54.1	66.2	59.8	57	61.3	168	60.1	0	10.2	21
		Through	52.1	60.5	50.2	63.8	59	54.1	66.2	59.8	57	61.3	168	60.1	0	10.2	21
		Right 2	52.1	60.5	50.2	63.8	59	54.1	66.2	59.8	57	61.3	168	60.1	0	10.2	21
12th	NB	Left 2	41.2	21.8	40.8	38.6	39.3	37.5	37	39.2	37.1	37.9	128	37.9	0	5.7	13.6
		Through	41.2	21.8	40.8	38.6	39.3	37.5	37	39.2	37.1	37.9	128	37.9	0	5.7	13.6
		Right 2	41.2	21.8	40.8	38.6	39.3	37.5	37	39.2	37.1	37.9	128	37.9	0	5.7	13.6
	EB	Left 2	40.1	38.5	39.1	41.2	36.4	37.1	39.8	40.2	37.2	38.6	290.9	39	0	5.9	17.4
		Through	40.1	38.5	39.1	41.2	36.4	37.1	39.8	40.2	37.2	38.6	290.9	39	0	5.9	17.4
		Right 2	40.1	38.5	39.1	41.2	36.4	37.1	39.8	40.2	37.2	38.6	290.9	39	0	5.9	17.4
	SB	Left 2	39.1	39	20	36.8	18.9	37.2	18.8	38.9	38	38.2	130.9	37	0	4.6	12.2
		Through	39.1	39	20	36.8	18.9	37.2	18.8	38.9	38	38.2	130.9	37	0	4.6	12.2
		Right 2	39.1	39	20	36.8	18.9	37.2	18.8	38.9	38	38.2	130.9	37	0	4.6	12.2
	WB	Left 2	84.4	83.7	84.6	83.1	80.3	82.2	82.2	81.3	84	64.5	175.6	82.7	0	16.1	29.4
		Through	84.4	83.7	84.6	83.1	80.3	82.2	82.2	81.3	84	64.5	175.6	82.7	0	16.1	29.4
		Right 2	84.4	83.7	84.6	83.1	80.3	82.2	82.2	81.3	84	64.5	175.6	82.7	0	16.1	29.4
13th	NB	Left 2	19.7	19.6	20.1	19.6	19.3	19.1	19.3	20	20.4	19.5	36.5	19.8	0	6.6	45.3
		Through	19.7	19.6	20.1	19.6	19.3	19.1	19.3	20	20.4	19.5	36.4	19.8	0	6.6	45.3
		Right 2	19.7	19.6	20.1	19.6	19.3	19.1	19.3	20	20.4	19.5	36.4	19.8	0	6.6	45.3
	EB	Left 2	18.5	19.4	18.4	18.5	18.7	18.5	19	18.7	18.9	18.9	36.4	18.8	0	2.6	85.3
		Through	18.5	19.4	18.4	18.5	18.7	18.5	19	18.7	18.9	18.9	36.4	18.8	0	2.6	85.3
		Right 2	18.5	19.4	18.4	18.5	18.7	18.5	19	18.7	18.9	18.9	36.4	18.8	0	2.6	85.3
	SB	Left 2	20.6	19.2	19.4	19.6	20.1	20.3	20.2	26.9	19.6	20.5	36.3	20	0	6.9	112.8
		Through	20.6	19.2	19.4	19.6	20.1	20.3	20.2	26.9	19.6	20.5	36.3	20	0	6.9	112.8
		Right 2	20.6	19.2	19.4	19.6	20.1	20.3	20.2	26.9	19.6	20.5	36.3	20	0	6.9	112.8
	WB	Left 2	18.6	18.1	18.7	18.5	17.7	18	19.9	0	18.1	18.1	36.1	18.2	0	1.6	30.3
		Through	18.6	18.1	18.7	18.5	17.7	18	19.9	0	18.1	18.1	36.1	18.2	0	1.6	30.3

		Right 2	18.6	18.1	18.7	18.5	17.7	18	19.9	0	18.1	18.1	36.1	18.2	0	1.6	30.3
14th	EB	Through	693.6	570.1	681.8	742	646.6	684.4	562.9	624.4	632.2	667.7	822.9	664.9	226.9	245.3	210.2
		Right 2	693.6	570.1	681.8	742	646.6	684.4	562.9	624.4	632.2	667.7	822.9	664.9	226.9	245.3	210.2
	SB	Left 2	1222.5	1224.5	1215.4	814.4	1216.3	1224.8	1222.8	1223.1	1225.8	1225.2	1250.5	1222.8	738.8	714	422.7
		Through	1222.5	1224.5	1215.4	814.4	1216.3	1224.8	1222.8	1223.1	1225.8	1225.2	1250.5	1222.8	738.8	714	422.7
		Right 2	1218.5	1220.5	1211.4	810.4	1212.3	1220.8	1218.8	1219	1221.8	1221.2	1246.5	1218.8	734.8	710	422.7
	WB	Left 2	39.5	61.1	43	62.4	41.6	40.4	59.1	40	42.9	45.4	146.9	43.7	0	7.2	17.3
		Through	39.5	61.1	43	62.4	41.6	40.4	59.1	40	42.9	45.4	146.9	43.7	0	7.2	17.3
Florida	EB	Through	230.2	309.4	208.6	200	231.6	209.4	236.7	229.4	213.1	249.3	376.8	231.7	39.8	69	84.4
	WB	Through	40.7	41.9	41.2	41.3	42.1	40.5	42.4	40.9	41.1	39.8	110.2	41.2	0	7.5	16
		Right 1	0	0	0	0	0	0	0	0	0	0	118.1	0	0	1.5	9.7
Starburst	NB	Right 1	110.1	127.7	124.2	125.3	122.2	126.7	141.8	145.8	142.6	144.7	220.2	127.8	58	55.7	42.1
		Right 2	110.1	127.7	124.2	125.3	122.2	126.7	141.8	145.8	142.6	144.7	220.2	127.8	58	55.7	42.1
	NEB	Through	60	57.7	62.7	42.1	40.1	40.5	39.6	40.7	58	39.9	146.7	43	0	13.7	18.5
		Right 1	60	57.7	62.7	42.1	40.1	40.5	39.6	40.7	58	39.9	146.7	43	0	13.7	18.5
	EB	Left 1	191.4	229.5	198.4	231.3	152.5	264.2	265.4	260.6	192.8	237.9	288.6	224.8	39.5	63.5	73.4
		Through	93.3	56.6	53	77.1	52.8	107.3	103	139.7	140	124.4	240.8	83.9	0	17.3	36.4
		Right 3	93.3	56.6	53	77.1	52.8	107.3	103	139.7	140	124.4	240.8	83.9	0	17.3	36.4
	SWB	Through	140.9	136.4	104.1	101.4	105.7	105.5	142.5	118.9	100.2	144.3	256	119.4	18.8	36.8	42.5
		Right 1	140.9	136.4	104.1	101.4	105.7	105.5	142.5	118.9	100.2	144.3	256	119.4	18.8	36.8	42.5
	WB	Through	86.3	80.1	78.9	80.9	80.4	82.8	82.9	100.7	82.9	80.2	189.4	81.8	0	16.1	29.9
		Right 3	86.3	80.1	78.9	80.9	80.4	82.8	82.9	100.7	82.9	80.2	189.4	81.8	0	16.1	29.9
Bladensburg/Maryland	NEB	Left 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.8
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.8
		Right 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.8
	SEB	Left 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.7
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.7
		Right 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.7
	SWB	Left 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7
		Right 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7
	NWB	Left 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.5
		Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.5
		Right 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.5
17th	EB	Left 2	0	0	0	0	18	0	16.8	0	0	17.7	105.1	0	0	1.3	6.8
		Through	157.1	163.4	186.5	196.9	197.5	138	177.7	188.3	214.2	166.4	456.6	179.6	0	38.6	62.9
		Right 2	157.1	163.4	186.5	196.9	197.5	138	177.7	188.3	214.2	166.4	456.6	179.6	0	38.6	62.9
	SB	Left 2	318.4	358.1	288.8	335.6	428.8	304.6	325.4	319.3	318.9	238.2	577.8	318.4	82.5	107.3	108.6
		Through	246.1	234.2	277.2	303.8	307.5	235.6	258.8	258.8	262.3	227.2	577.4	256.5	40	65	84.5
		Right 2	234.2	222.3	265.3	291.8	295.5	223.7	246.8	246.9	250.4	215.2	565.4	244.5	28.1	55.9	82.4
	WB	Left 2	0	19.2	0	18.9	18.1	18.2	17.7	17.5	18	0	87.1	17.9	0	1.7	7.1
		Through	157	146.4	171.8	174.8	151	139.1	171	167.1	150.4	169.6	393.8	163.4	0	35.9	58
		Right 2	149.3	138.7	164.1	167.1	143.3	131.4	163.3	159.4	142.8	161.9	386.1	155.7	0	31.6	55.7
19th	NB	Left 2	144.8	154.8	150.5	150	169	139.8	146.5	138.2	163.3	144.7	354.1	147.9	40.8	54.4	51
		Through	144.8	154.8	150.5	150	169	139.8	146.5	138.2	163.3	144.7	354.1	147.9	40.8	54.4	51
		Right 2	144.8	154.8	150.5	150	169	139.8	146.5	138.2	163.3	144.7	354.1	147.9	40.8	54.4	51
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.5	0	0	0.2	2.2
		Through	103	107.9	120.3	109.3	131.2	124.8	141.2	109.7	103.7	112.9	355.6	119.7	0	29.5	44.4
	WB	Through	72.1	71.7	82.2	71.3	79.2	81.8	83.5	76.3	80.5	83.7	201.3	79.6	0	17	30.5
		Right 2	72.1	71.7	82.2	71.3	79.2	81.8	83.5	76.3	80.5	83.7	201.3	79.6	0	17	30.5
21st	NB	Left 2	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.7	24.6	34.7
		Through	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.7	24.6	34.7
		Right 2	75.9	83.3	65.7	82.3	65.7	64.7	118.6	97.1	144.2	129.7	269.7	86.2	17.7	24.6	34.7
	EB	Left 2	0	0	0	0	0	18.2	0	0	0	0	90.5	0	0	0.8	5.3
		Through	70.7	71	70.6	71.1	64	64.2	65.6	70.9	46.2	89.5	547.7	69.7	0	17.7	34.4
		Right 2	70.7	71	70.6	71.1	64	64.2	65.6	70.9	46.2	89.5	547.7	69.7	0	17.7	34.4
	SB	Left 2	123.9	101.6	100	105.2	106.8	126.8	112.9	123.9	120.9	107.7	232.7	107.7	18.9	34	38.7
		Through	123.9	101.6	100	105.2	106.8	126.8	112.9	123.9	120.9	107.7	232.7	107.7	18.9	34	38.7
		Right 2	123.9	101.6	100	105.2	106.8	126.8	112.9	123.9	120.9	107.7	232.7	107.7	18.9	34	38.7
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	62.3	0	0	0.4	3
		Through	82.2	82.4	75.6	108.2	81.7	90.2	100	100.7	85.4	101	206.2	87.1	0	19.4	33.1
		Right 2	82.2	82.4	75.6	108.2	81.7	90.2	100	100.7	85.4	101	206.2	87.1	0	19.4	33.1
26th	EB	Left 2	0	0	0	0	0	0	0	0	0	0	51.5	0	0	0.3	2.8
		Through	63.5	42.5	44.7	44.3	64.5	36.2	42.4	41	60.3	41.1	393.7	43	0	8.2	26.6
	SB	Left 2	121.9	122.2	106.5	100.5	106.2	102.6	120.5	123.4	102.2	101.4	257.8	105.4	18.2	32.4	38.5
		Right 2	109.3	109.6	93.9	87.9	93.7	90	107.9	110.8	89.6	88.8	245.2	92.8	0	23.6	35.2
	WB	Through	78.5	57.4	58.7	69.4	57.2	59	57.3	71	55.7	62.3	202.2	61.7	0	11	27.7
		Right 2	78.5	57.4	58.7	69.4	57.2	59	57.3	71	55.7	62.3	202.2	61.7	0	11	27.7
Oklahoma	NEB	Left 3	60.4	76	83.3	58.9	62.9	79.4	62.8	50.1	65.3	79.6	192.1	63.9	0	14.3	25
		Right 1	40.7	56.3	63.5	39.1	43.1	59.6	43	30.3	45.5	59.8	172.3	44.1	0	7.3	18.6
	EB	Through	171.3	135.8	153.3	144.9	152.6	96.9	140.2	132.1	104.9	119.4	271.5	135.3	0	24.6	49.7
		Right 3	171.3	135.8	153.3	144.9	152.6	96.9	140.2	132.1	104.9	119.4	271.5	135.3	0	24.6	49.7
	WB	Left 1	34.4	40.9	37.7	40	38.7	37.3	39.4	38.7	38.1	37.5	132.6	38.7	0	4.8	14.2
		Through	34.4	40.9	37.7	40	38.7	37.3	39.4	38.7	38.1	37.5	132.6	38.7	0	4.8	14.2

Travel Times for Scenario 2c: 2013 Opening Year Build PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6524.8	330.4	446	313.9	425	312.6	390	326.7	414	320.4	411	331.9	420	324.9	425	317.3	445	326	445	331	460	323.7	57.6	204.2	667.9	13.7	21.8
EB H: Union to Kaiser	2	708.4	21.1	1157	21.5	1128	21.3	1115	21.3	1107	21.6	1132	21.2	1167	21.5	1184	21.2	1192	21.3	1178	21.4	1178	21.3	6	17.1	56.2	22.7	28.2
EB H: Kaiser to 3rd	3	592.9	33.2	1229	35.1	1213	32.5	1197	34.6	1197	35.8	1225	33.9	1252	36.8	1282	33.2	1258	36.9	1258	36	1244	34.8	15.4	14.5	136.1	11.6	27.9
EB H: 3rd to 4th	4	426.4	19.9	1084	20.4	1075	18.9	1064	20.5	1039	19.9	1069	20.4	1080	21.1	1118	19.7	1101	21	1108	20	1087	20.2	11.1	10.4	62.5	14.4	28
EB H: 4th to 5th	5	595	27.9	1121	30.3	1118	27.8	1112	27.3	1085	29	1109	29.4	1136	30.9	1181	28.4	1145	30.1	1153	28.3	1120	29	15.1	14.3	107.3	14	28.4
EB H: 6th to 7th	6	651.5	26	1114	26	1093	26.7	1071	26.2	1066	26.3	1107	26.3	1129	26.4	1160	26.1	1118	27.9	1116	27.2	1136	26.5	11.9	15.7	85.4	16.8	28.2
EB H: 7th to 8th	7	334	14.2	1058	15.5	1050	14.6	1037	15.8	1041	15.3	1089	16.2	1096	14.5	1117	16.2	1067	16.6	1088	16.5	1100	15.5	11.9	7.8	102	14.7	29.1
EB H: 8th to 9th	8	339.8	11.6	1022	11.4	1018	11.5	1012	11.3	999	11.4	1050	11.2	1048	11.4	1063	11.4	1009	11.5	1010	11.6	1054	11.4	6.6	8	64.4	20.3	28.9
EB H: 9th to 10th	9	315.6	10.2	1069	10.1	1068	11.1	1067	10.2	1046	10	1066	10	1089	10.6	1100	10	1049	10.9	1052	10.5	1074	10.4	5.5	7.4	70	20.7	29.1
EB H: 10th to 11th	10	315.6	11.1	1086	10.6	1077	11.6	1068	11.5	1052	11.1	1079	11.9	1113	11.1	1119	11.5	1064	12.1	1067	11.9	1091	11.4	7.1	7.4	84.6	18.9	29
EB H: 11th to 12th	11	360.1	11.9	1120	11.5	1121	12	1109	13.1	1082	11.7	1134	11.9	1158	11.6	1137	11.9	1088	11.5	1089	11.7	1128	11.9	7	8.5	61.6	20.6	28.9
EB H: 12th to 13th	12	557.6	26.2	1159	19.6	1146	20.6	1136	28.5	1085	22.4	1145	25.6	1178	20.8	1194	22.2	1132	20.3	1119	21	1180	22.7	16	13.4	145	16.7	28.3
EB H: 13th to 14th	13	781.2	69.9	1126	60.5	1114	60.5	1082	66	1047	60.7	1112	69.6	1126	59.9	1136	58.9	1083	63.1	1076	69.6	1144	63.9	34.4	19.5	211.6	8.3	27.3
EB H: 14th to Starburst (incl ped sig)	14	511.7	34.5	959	34.3	935	33.2	916	32.5	895	33.1	950	34.1	939	34.5	976	34.1	925	35.3	924	34.6	984	34	20.6	12.7	146.4	10.3	27.6
WB H	15	6427.1	277.8	148	278.1	177	276	152	282.3	150	274.8	151	278.9	130	276.4	158	286.8	143	278.3	165	271.7	134	278.1	49	188.9	581.9	15.8	23.2
WB H: Starburst to 14th (incl. ped sig)	16	480.6	19.6	397	21.8	431	20.3	421	22.1	410	21.8	409	20	403	20.6	432	19.4	418	20.6	434	20	414	20.6	12.2	11.5	103.5	15.9	28.6
WB H: 14th to 13th	17	799.1	27.8	368	29.4	391	28.4	384	28.6	383	27.4	380	28.6	369	28.7	402	29.9	380	28.4	401	29.9	370	28.7	14.5	18.9	114.2	19	28.8
WB H: 13th to 12th	18	554.2	23.5	362	22.7	395	22.6	381	21.8	377	22.3	370	22.3	368	22	381	22.8	379	23	396	21.2	350	22.4	10.4	13.2	126.6	16.9	28.5
WB H: 12th to 11th	19	364	16.4	430	16.1	470	16.2	463	16.6	451	16.6	432	16.7	437	17.5	440	16.4	465	16.7	459	16.5	433	16.6	10.4	8.5	91.2	15	29.1
WB H: 11th to 10th	20	319.4	11.9	406	12.5	438	11.9	431	12.4	425	12.4	410	12.9	408	12.6	410	13.4	444	12.7	424	13.7	415	12.6	9	7.5	107.1	17.3	28.9
WB H: 10th to 9th	21	315.3	13.1	407	13.4	435	13.2	444	12.7	436	12.7	410	12.8	422	13.3	432	13.9	442	13.1	434	13.5	419	13.2	10.6	7.4	91.1	16.3	29.1
WB H: 9th to 8th	22	333.3	21.5	416	20.7	437	20.1	443	22.5	442	21.5	418	20.3	419	19.4	432	22.2	441	21.2	443	19.1	427	20.9	15.5	7.8	110.9	10.9	29.1
WB H: 8th to 7th	23	348.1	15	423	14	465	14.2	451	14.5	458	14.7	423	14.4	447	14.8	423	14.3	424	14	464	14.4	435	14.4	10.6	8.2	70.3	16.5	29
WB H: 7th to 6th	24	641	24.4	422	23	477	23.8	459	23.6	456	23.3	418	24.2	440	24.6	417	23.4	426	27	476	23.8	443	24.1	11.8	15.3	103.6	18.1	28.6
WB H: 6th to 4th	25	599.5	24.1	391	25.1	452	24.5	436	25	440	24.2	397	24	412	23.8	395	24.5	397	24.7	457	23.9	425	24.4	10.6	14.4	81.9	16.8	28.4
WB H: 4th to 3rd	26	413.5	38.4	422	38.5	474	36.6	436	36.7	463	37.8	414	37.8	427	35.1	412	38.6	418	36.9	462	35.5	448	37.2	18.1	9.8	197.3	7.6	28.8
WB H: 3rd to Kaiser	27	589.2	16	460	16	521	15.8	474	15.9	497	16	465	16	459	15.9	468	16	473	15.9	490	16	483	16	0.9	14	32	25.1	28.8

WB H: Kaiser to Union	28	647.4	17.6	528	17.9	571	18	532	17.9	527	17.6	498	17.6	513	17.6	508	17.8	528	17.7	558	17.7	543	17.7	1.8	15.2	34	24.9	29
EB Benning	29	4103	135.5	1126	135	1087	134.9	1096	136.4	1058	136.7	1123	132.2	1093	135.5	1149	133.1	1108	133.2	1086	136.6	1084	134.9	36.9	101	446.9	20.7	27.7
EB Benning: Starbust to 16th	30	621.7	20.3	1387	20.8	1344	20.4	1353	20.3	1321	20.3	1397	20.4	1335	20.5	1398	20.1	1361	20.5	1365	20.9	1386	20.4	11.3	14.8	110.2	20.8	28.6
WB Benning: 16th to 17th	31	636.9	25.4	1353	25.8	1305	26.5	1351	28.4	1286	26.7	1403	24.7	1316	26	1369	26.3	1328	26.9	1328	26	1356	26.3	11.6	15.1	129.8	16.5	28.8
EB Benning: 17th to 19th	32	827.2	27	1322	27.6	1287	27.8	1280	27.6	1251	28.5	1325	28	1279	28.5	1327	27.3	1273	26.8	1269	27.4	1287	27.7	10.4	19.7	114.6	20.4	28.7
EB Benning: 19th to 21st	33	671.8	21.9	1711	21.8	1661	21.4	1661	21.8	1650	21.4	1704	21.6	1646	21.9	1674	22	1661	21.3	1647	22.8	1679	21.8	8.6	16.2	94	21	28.2
EB Benning: 21st to 24th	34	583.1	18.7	1714	17.9	1646	18.4	1685	18.4	1665	18.4	1718	18.5	1641	18.4	1699	18.1	1665	18.4	1665	18.5	1673	18.4	7.6	13.9	79.5	21.6	28.5
EB Benning: 24th to 26th	35	513.5	16.7	1810	16	1727	16.2	1768	16	1735	16.1	1798	14.8	1715	15.6	1775	15.5	1733	16.2	1742	15.8	1756	15.9	4.5	12.3	54.5	22	28.4
EB Benning: 26th to OK	36	237.9	9.6	1832	8.7	1743	8.8	1789	8.7	1745	8.9	1811	8.1	1734	8.8	1793	8.6	1758	8.3	1764	8.6	1771	8.7	6.6	5.6	80.9	18.6	29.1
WB Benning	37	4172.8	175.9	350	172.7	357	174.5	343	181.6	342	176.7	353	175	338	176.4	337	176.7	379	171.6	365	175.5	386	175.6	45.7	108.4	477.7	16.2	26.3
WB Benning: OK to 26th	38	273.5	10.5	806	10.3	832	10.1	801	10.7	838	10	845	10.3	843	10.1	861	10	891	10	907	10.4	900	10.2	7	6.4	59.1	18.3	29
WB Benning: 26th to 24th	39	496.1	15	752	14.7	772	15.1	742	14.6	761	15.3	761	14.4	784	14.4	789	14.5	806	14.9	824	15	827	14.8	5.4	11.6	67.2	22.9	29.1
WB Benning: 24th to 21st	40	583	22.8	765	22.2	794	21.7	761	24.1	779	22.5	770	23	796	22.9	801	23.1	828	21.9	832	23	832	22.7	11.5	13.7	86.5	17.5	28.9
WB Benning: 21st to 19th	41	598.6	18.3	767	18.5	789	19.2	764	18.4	787	18.7	767	19	794	19.1	800	18.6	821	18.7	834	18.7	830	18.7	6.7	14.1	94	21.8	28.9
WB Benning: 19th to 17th	42	875.1	37.7	769	37.4	775	36.7	778	39	791	38.5	786	37.6	819	38	811	38.7	808	36.7	810	38.6	827	37.9	14.5	21	124.2	15.7	28.4
WB Benning: 17th to 16th	43	655.6	31.5	622	30.1	626	30.9	614	32.6	625	31	634	30.8	613	30.2	634	31.8	649	30.4	637	33	651	31.2	15.3	16	106.9	14.3	27.9
WB Benning: 16th to Starburst	44	677.6	28.8	548	29.7	575	30	545	30.3	549	28.3	556	29.5	560	29.2	580	29	576	29.6	555	29.1	590	29.3	16.1	16.5	145.5	15.8	28.1
EB Corridor	45	9923.5	451.6	388	433.6	367	430	343	439	342	435.7	373	441.4	385	440.4	397	435.3	398	442.9	395	455.2	397	440.8	92.9	308.2	1002.2	15.3	22
WB Corridor	46	10604.3	486.7	69	477.3	76	477	72	494.7	73	490.4	68	503.8	56	474.9	77	505.2	65	475.7	80	476.1	77	485.3	125.1	319.5	972.3	14.9	22.6

Travel Times for Streetcar for Scenario 2c: 2013 Build PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average(s)	Standard Deviation(s)	Min(s)	Max(s)		
EB H	1	6524.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Union to Kaiser	2	708.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Kaiser to 3rd	3	592.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 3rd to 4th	4	426.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 4th to 5th	5	595	68.3	6	63.6	6	69.8	6	73.6	6	62.8	6	69.5	6	74.4	6	75	6	65.5	6	63.7	6	68.6	11.8	59.2	98.2	5.9	6.9
EB H: 6th to 7th	6	651.5	45.2	6	47.9	6	31.7	6	33	6	42.5	6	37.2	6	37.8	6	37.1	6	46.1	6	42.7	6	40.1	15.4	18	63.8	11.1	24.7
EB H: 7th to 8th	7	334	61.8	6	60.3	6	59.9	6	62.3	6	58.5	6	64.1	6	60	6	56.1	6	57.3	6	63.4	6	60.4	13.5	45.8	85.7	3.8	5
EB H: 8th to 9th	8	339.8	15.3	6	13.8	6	12.9	6	13	6	16.6	6	16.9	6	17.5	6	13	6	13	6	16.8	6	14.9	6.2	12.8	39.6	15.5	18
EB H: 9th to 10th	9	315.6	10.1	6	9.3	6	8.9	6	9.5	6	8.9	6	9.9	6	14.9	6	8.6	6	10.9	6	9.4	6	10	4.9	8.6	44.9	21.5	25
EB H: 10th to 11th	10	315.6	10.5	6	10.6	6	8.7	6	16.2	6	10.7	6	9.7	6	10.4	6	9.1	6	15.7	6	9.8	6	11.2	6.5	8.6	46	19.2	25
EB H: 11th to 12th	11	360.1	16.4	6	15.9	6	9.9	6	22.4	6	10.1	6	15.7	6	16.3	6	16.2	6	15.9	6	16	6	15.5	13.2	9.8	48.3	15.8	25
EB H: 12th to 13th	12	557.6	77.1	6	65.1	6	70	6	70.2	6	67.9	6	71.3	6	66.9	6	77.9	6	56.4	6	67.8	6	69.1	22.3	52.1	145	5.5	7.3
EB H: 13th to 14th	13	781.2	75.6	6	58.2	6	53.8	5	68.6	5	40	5	65.9	6	66.7	6	63.9	6	56.1	5	65.4	6	61.9	24.7	25.2	111.7	8.6	21.1
EB H: 14th to Starburst (incl ped sig)	14	511.7	34	7	38	6	43.1	5	36.8	6	44.2	6	46	6	28.5	7	41.1	7	40.3	6	40.2	7	38.9	22.7	14	73.3	9	25
WB H	15	6427.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: Starburst to 14th (incl. ped sig)	16	480.6	15.1	6	16.3	6	16.2	6	16.5	6	15.3	6	15.3	6	15.4	6	16.2	6	16	6	15.3	6	15.8	1.4	13.9	20.1	20.7	23.5
WB H: 14th to 13th	17	799.1	67.9	6	72	6	62.9	6	70.3	6	67.6	6	64.9	6	67.6	6	62	6	62.7	6	64.6	6	66.3	7.3	57.1	78.9	8.2	9.5
WB H: 13th to 12th	18	554.2	19.9	6	19.8	6	19.9	6	19.9	6	19.9	6	20	6	19.9	6	20	6	20.1	6	19.9	6	19.9	0.2	19.5	20.2	19	19.3
WB H: 12th to 11th	19	364	10.1	6	10.2	6	9.9	6	10.1	6	9.9	6	10	6	9.9	6	10.1	6	10	6	10.1	6	10	0.3	9.9	11.1	24.8	25
WB H: 11th to 10th	20	319.4	23.6	6	19.3	6	19.6	6	19.9	6	24.9	6	25.1	6	20.2	6	30.2	6	29.2	6	20.4	6	23.2	13.3	14.2	46.6	9.4	15.4
WB H: 10th to 9th	21	315.3	29.9	6	33.9	6	34.1	6	33.6	6	29.4	6	29.2	6	33.8	6	24.4	6	25	6	33.5	6	30.7	12.3	10.2	39.3	7	21
WB H: 9th to 8th	22	333.3	47.7	6	46.3	6	48.9	6	48.4	6	47.6	6	48.3	6	47.9	6	52.2	6	58.5	6	48.7	6	49.4	8.9	44	110.9	4.6	5.2
WB H: 8th to 7th	23	348.1	33.7	6	38.5	6	35.8	6	36	6	36.3	6	35.6	6	36.4	6	31.8	6	32.2	6	35.5	6	35.2	5.3	13.8	40.8	6.7	17.2
WB H: 7th to 6th	24	641	28.7	6	22.7	6	26.7	6	22	6	23.9	6	18.6	6	26.7	6	19.9	6	28.8	6	26.3	6	24.4	10.9	17.5	47	17.9	25
WB H: 6th to 4th	25	599.5	59.1	6	62.7	6	61	6	60.2	6	62	6	63.4	6	61.4	6	64.7	6	62.3	6	60.6	6	61.7	4.4	55.5	81.9	6.6	7.4
WB H: 4th to 3rd	26	413.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: 3rd to Kaiser	27	589.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WB H: Kaiser to Union	28	647.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB Benning	29	4103	252.1	6	291.7	6	279.2	6	271.9	6	297.9	6	276.5	6	288.2	6	245.5	6	251.9	6	284.5	6	273.9	29.4	216.2	334.3	10.2	12.9
EB Benning: Starbust to 16th	30	621.7	68.4	6	73.6	6	66.9	6	70.8	6	74.4	6	77	6	79.7	6	60.9	6	73.6	6	75.8	6	72.1	16.1	57.3	110.2	5.9	7.4
WB Benning: 16th to 17th	31	636.9	27.7	6	46.3	6	34.6	6	35.9	6	55.2	6	42	6	36.4	6	34.3	6	27.7	6	43.7	6	38.4	19.4	17.4	85.5	11.3	25
EB Benning: 17th to 19th	32	827.2	32	6	33.4	6	38.4	6	34.6	6	27.2	6	38.4	6	35.4	6	24.6	6	28.6	6	36.1	6	32.9	11.9	22.6	70.2	17.1	25
EB Benning: 19th to 21st	33	671.8	73.7	6	64.5	6	67.4	6	71.1	6	68.3	6	65.7	6	67.1	6	74.1	6	65	6	65	6	68.2	7	57.4	89.6	6.7	8
EB Benning: 21st to 24th	34	583.1	21.3	6	28.8	6	35.2	6	28.2	6	33.3	6	23.2	6	29.4	6	22	6	21.8	6	26.2	6	26.9	12.1	15.9	54.8	14.8	25
EB Benning: 24th to 26th	35	513.5	17.1	6	29.2	6	22.5	6	18.9	6	22.4	6	16.7	6	20.3	6	17.4	6	21.9	6	22.7	6	20.9	8.7	14	50.2	16.8	25
EB Benning: 26th to OK	36	237.9	11.2	6	14.6	6	12.9	6	11.1	6	15.3	6	12.2	6	18.7	6	11.4	6	12.5	6	13.9	6	13.4	4.5	10.5	31.8	12.1	15.5
WB Benning	37	4172.8	296.9	6	284.6	6	284.6	6	300.6	6	301.5	6	296.6	6	284.4	6	297	6	300.4	6	284.3	6	293.1	26.8	282.1	384.5	9.7	10.1
WB Benning: OK to 26th	38	273.5	52.2	6	50.7	6	50	6	50.4	6	49.9	6	51.4	6	50.1	6	50	6	50.9	6	49.7	6	50.5	2	46.1	57.1	3.7	4
WB Benning: 26th to 24th	39	496.1	15	6	14.3	6	14.3	6	14.4	6	15.5	6	17.9	6	14.3	6	16.3	6	14.3	6	14.3	6	15.1	3.3	14.2	35.8	22.4	23.8
WB Benning: 24th to 21st	40	583	15.9	6	15.9	6	15.9	6	16	6	15.9	6	21.1	6	16.3	6	15.9	6	16	6	16.8	6	16.6	4	15.9	47	23.9	25
WB Benning: 21st to 19th	41	598.6	20.9	6	21	6	21	6	20.9	6	21	6	21.6	6	20.9	6	22.8	6	21	6	21.1	6	21.2	1.6	20.4	32.1	19.3	20
WB Benning: 19th to 17th	42	875.1	69.1	6	68.7	6	70.6	6	74.4	6	71.1	6	71.1	6	70.8	6	70.9	6	68.7	6	70.7	6	70.6	5.7	62.4	89	8.5	9.6
WB Benning: 17th to 16th	43	655.6	34.1	6	20.4	6	21.5	6	34.1	6	29.6	6	23.1	6	22.5	6	23.2	6	24.4	7	22.4	6	25.5	14.6	17.9	99.7	17.5	25
WB Benning: 16th to Starburst	44	677.6	88.7	6	92.7	6	89.7	6	88.6	6	97.7	6	89.7	6	87.9	6	94.4	6	102.9	6	89.6	6	92.2	10.5	81	145.5	5	5.7
EB Corridor	45	9923.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB Corridor	46	10604.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Movement Group Delay for Scenario 2d: 2040 No-Build AM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	5.3	A
Kaiser Garage	20	5.8	A
3rd	30	20.4	C
4th	40	25.8	C
6th	60	30.3	C
7th	70	3.5	A
8th	80	14.9	B
9th	90	7.7	A
10th	100	7.2	A
11th	110	12.2	B
12th	120	6	A
13th	130	9.2	A
14th	140	32.5	C
Florida	150	16.1	B
Starburst	151	66.9	E
Bladensburg/Maryland	152	31.6	C
16th	160	18.3	B
17th	170	30.5	C
19th	190	44.6	D
21st	210	27.5	C
24th	240	18.7	B
26th	260	9.1	A
Oklahoma	270	17.1	B

Queue Lengths for Scenario 2d: 2040 No-Build AM

Intersection	Approach	Movement	95% Queues per Run														
			1	2	3	4	5	6	7	8	9	10	Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	37.8	57.8	38.6	37.9	37.2	39.5	56.9	39.4	58.4	36.9	152.7	40	0	9	16
		Right 2	37.8	57.8	38.6	37.9	37.2	39.5	56.9	39.4	58.4	36.9	152.7	40	0	9	16
	EB	Through	59.5	43.5	43.2	41	43.2	41.4	167.9	40.9	40.7	41.6	296.5	43.5	0	8.6	23.4
		Right 2	59.5	43.5	43.2	41	43.2	41.4	167.9	40.9	40.7	41.6	296.5	43.5	0	8.6	23.4
	WB	Left 2	129.1	104.1	103.6	105.7	167.1	106.6	212.9	109.6	103.6	104.7	506.9	120.1	17.8	33.2	46.3
		Through	17.3	0	0	15.5	0	0	0	0	0	0	81.6	0	0	1.1	5.5
Kaiser Garage	NB	Left 2	18.3	19.5	19.4	19.3	19.1	19	18.9	18.6	18.6	19.5	65.4	19	0	3.1	8.1
		Right 2	18.3	19.5	19.4	19.3	19.1	19	18.9	18.6	18.6	19.5	65.4	19	0	3.1	8.1
	EB	Through	62.8	78.7	64.9	63.3	63.5	65.6	710.9	104.6	79.7	135.6	743.6	97.4	0	27.3	85.6
		Right 2	62.8	78.7	64.9	63.3	63.5	65.6	710.9	104.6	79.7	135.6	743.6	97.4	0	27.3	85.6
	WB	Left 2	41.2	57.7	40	41.3	42.1	41	40	41.4	37.3	35.9	106.2	40.9	0	8.7	15.6
		Through	21.1	20.1	37.3	37.2	36.4	38.9	21.5	37	18.8	19.8	150.3	21.8	0	3.3	12.1
3rd	NB	Left 2	193.5	104.5	127	202.7	104.1	293.5	253.5	430.4	254.6	209.7	521	235.1	38.8	61	81.2
		Through	193.5	104.5	127	202.7	104.1	293.5	253.5	430.4	254.6	209.7	521	235.1	38.8	61	81.2
		Right 2	193.5	104.5	127	202.7	104.1	293.5	253.5	430.4	254.6	209.7	521	235.1	38.8	61	81.2
	NEB	Left 1	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
		Right 1	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
		Right 3	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
	EB	Left 2	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
		Through	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
		Right 2	112.1	108.1	122.5	107.2	313.3	136.6	611.1	604.4	394.4	606.6	636.6	495.5	0	73.7	144.6
	SB	Left 2	81.5	106.5	105.1	125.7	385	163.2	397.2	168.3	180.2	81.8	432.8	175.6	0	37.2	76
		Through	81.5	106.5	105.1	125.7	385	163.2	397.2	168.3	180.2	81.8	432.8	175.6	0	37.2	76
		Right 2	72	97	95.6	116.2	375.5	153.7	387.7	158.8	170.7	72.3	423.4	166.1	0	31.7	74
	WB	Left 2	381.2	372.3	371.8	306	357	299.4	372.3	382.6	374	370.1	447.5	371.6	0	77.7	116
		Through	381.2	372.3	371.8	306	357	299.4	372.3	382.6	374	370.1	447.5	371.6	0	77.7	116
		Right 2	381.2	372.3	371.8	306	357	299.4	372.3	382.6	374	370.1	447.5	371.6	0	77.7	116
4th	EB	Through	62.8	68.6	88.2	62.8	446.8	440.7	451.3	460.7	445.2	466.5	470.5	445.2	0	81.8	151.7
		Right 2	62.8	68.6	88.2	62.8	446.8	440.7	451.3	460.7	445.2	466.5	470.5	445.2	0	81.8	151.7
	SB	Left 2	124.2	84.4	119	85.2	158.8	168.8	123.5	189.6	121.3	418	449.2	144.7	17.5	38	65.1
		Through	124.2	84.4	119	85.2	158.8	168.8	123.5	189.6	121.3	418	449.2	144.7	17.5	38	65.1
		Right 2	44.9	44.3	0	0	34.2	0	29.5	18.7	32.4	0	309	19.9	0	3.4	19.2
	WB	Left 2	341.9	384.4	355.5	360.2	395.7	391.9	389.4	377.9	470.9	384	620	380.9	46.1	110.1	133.6
		Through	341.9	384.4	355.5	360.2	395.7	391.9	389.4	377.9	470.9	384	620	380.9	46.1	110.1	133.6
6th	NB	Left 2	373.5	498	496.5	501.9	411.1	396.4	436.2	324	503.6	503	538.2	494.6	121.9	154.8	148
		Through	373.5	498	496.5	501.9	411.1	396.4	436.2	324	503.6	503	538.2	494.6	121.9	154.8	148
		Right 2	361.9	486.4	484.9	490.3	399.5	384.8	424.6	312.4	492	491.4	526.6	483	110.3	145	146.1
	EB	Left 2	304.7	277.5	513.5	379	612.3	620.9	612.2	609.1	610.3	612.1	639.4	609.1	218.1	262	205.5
		Through	304.7	277.5	513.5	379	612.3	620.9	612.2	609.1	610.3	612.1	639.4	609.1	218.1	262	205.5
	WB	Through	169.8	156	167.3	156.6	170.7	166.6	164	187.1	156.3	129.7	653.5	163.6	0	38.5	64.7
		Right 2	169.8	156	167.3	156.6	170.7	166.6	164	187.1	156.3	129.7	653.5	163.6	0	38.5	64.7
7th	EB	Left 2	19.7	19.8	38.2	19.2	41.2	20.7	43.2	21.4	60.1	36.6	149	37.6	0	4.1	15.3
		Through	19.7	19.8	38.2	19.2	41.2	20.7	43.2	21.4	60.1	36.6	149	37.6	0	4.1	15.3
		Right 2	19.7	19.8	38.2	19.2	41.2	20.7	43.2	21.4	60.1	36.6	149	37.6	0	4.1	15.3
	SB	Left 2	61.7	81.6	64.1	83.1	64.9	63.9	60.4	60.4	67.3	62.6	172.5	63.1	0	14	24.1
		Through	61.7	81.6	64.1	83.1	64.9	63.9	60.4	60.4	67.3	62.6	172.5	63.1	0	14	24.1
		Right 2	61.7	81.6	64.1	83.1	64.9	63.9	60.4	60.4	67.3	62.6	172.5	63.1	0	14	24.1
	WB	Left 2	40.4	40.4	41.5	41.4	39.7	37.8	40.5	20.4	41.9	38.1	332.6	40.5	0	6.2	16.7
		Through	40.4	40.4	41.5	41.4	39.7	37.8	40.5	20.4	41.9	38.1	332.6	40.5	0	6.2	16.7
		Right 2	40.4	40.4	41.5	41.4	39.7	37.8	40.5	20.4	41.9	38.1	332.6	40.5	0	6.2	16.7
8th	NB	Left 2	168.9	248	191.7	174.5	157.6	166.8	146.9	168.5	168.7	151.1	557.5	172.1	17.9	45.9	66.8
		Through	168.9	248	191.7	174.5	157.6	166.8	146.9	168.5	168.7	151.1	557.5	172.1	17.9	45.9	66.8
		Right 2	154.5	233.6	177.3	160.1	143.2	152.4	132.4	154.1	154.3	136.7	543.1	157.7	0	37.7	62.8
	EB	Left 2	104.3	165.8	108.9	92.1	126.3	103.6	102	119.3	118.8	118.1	339.3	120	0	27	43.7
		Through	104.3	165.8	108.9	92.1	126.3	103.6	102	119.3	118.8	118.1	339.3	120	0	27	43.7
		Right 2	104.3	165.8	108.9	92.1	126.3	103.6	102	119.3	118.8	118.1	339.3	120	0	27	43.7
	SB	Left 2	83.8	114	80.4	77.8	94.3	99.9	97.9	126.2	104.6	99.1	287.8	100.5	0	23	36.8
		Through	83.8	114	80.4	77.8	94.3	99.9	97.9	126.2	104.6	99.1	287.8	100.5	0	23	36.8
		Right 2	72.7	102.9	69.4	66.8	83.2	88.8	86.9	115.2	93.5	88	276.8	89.5	0	17.1	33.6
	WB	Left 2	189.1	199.7	214.6	206.1	176.2	193.2	189.6	214.8	154.5	221	369.9	196.1	17.3	44.4	70.2
		Through	189.1	199.7	214.6	206.1	176.2	193.2	189.6	214.8	154.5	221	369.9	196.1	17.3	44.4	70.2
		Right 2	189.1	199.7	214.6	206.1	176.2	193.2	189.6	214.8	154.5	221	369.9	196.1	17.3	44.4	70.2
9th	NB	Left 2	57	80.6	59.1	57.8	58.3	44.5	40.5	42.6	58.7	58.7	180.9	58.7	0	12.9	20.5
		Through	57	80.6	59.1	57.8	58.3	44.5	40.5	42.6	58.7	58.7	180.9	58.7	0	12.9	20.5
		Right 2	57	80.6	59.1	57.8	58.3	44.5	40.5	42.6	58.7	58.7	180.9	58.7	0	12.9	20.5
	EB	Left 2	80.9	352.2	88.5	84.3	68.6	85.7	66	80.1	84.8	84.3	354.2	85.8	0	18.4	42.1
		Through	80.9	352.2	88.5	84.3	68.6	85.7	66	80.1	84.8	84.3	354.2	85.8	0	18.4	42.1
		Right 2	80.9	352.2	88.5	84.3	68.6	85.7	66	80.1	84.8	84.3	354.2	85.8	0	18.4	42.1
	SB	Left 2	36.8	42.1	40.3	40.5	57.7	39.6	39.3	39.8	41.7	40.2	122.3	40.5	0	8.3	15.5
		Through	36.8	42.1	40.3	40.5	57.7	39.6	39.3	39.8	41.7	40.2	122.3	40.5	0	8.3	15.5
		Right 2	36.8	42.1	40.3	40.5	57.7	39.6	39.3	39.8	41.7	40.2	122.3	40.5	0	8.3	15.5
	WB	Left 2	40.4	79.7	41.6	49	40.3	40.8	41.5	59.2	39.9	82	346	43.2	0	9.4	24.7
		Through	40.4	79.7	41.6	49	40.3	40.8	41.5	59.2	39.9	82	346	43.2	0	9.4	24.7
		Right 2	40.4	79.7	41.6	49	40.3	40.8	41.5	59.2	39.9	82	346	43.2	0	9.4	24.7
10th	NB	Left 2	99.8	144.9	79.1	81.6	62.8	62.3	61.3	82.3	81.4	62.8	212.6	81.6	0	19.2	30.1
		Right 2	99.8	144.9	79.1	81.6	62.8	62.3	61.3	82.3	81.4	62.8	212.6	81.6	0	19.2	30.1
	EB	Through	40	322.5	40.3	39.6	42.3	39.4	43.5	41.2	41.3	36.9	338.7	43.2	0	11.3	40.5
		Right 2	40	322.5	40.3	39.6	42.3	39.4	43.5	41.2	41.3	36.9	338.7	43.2	0	11.3	40.5
	SB	Left 2	41	59.8	41.8	60.3	64.7	41.7	61.9	63.7	60.6	82.8	170.5	61.1	0	13.1	22.6
		Through	41	59.8	41.8	60.3	64.7	41.7	61.9	63.7	60.6	82.8	170.5	61.1	0	13.1	22.6
		Right 2	41	59.8	41.8	60.3	64.7	41.7	61.9	63.7	60.6	82.8	170.5	61.1	0	13.1	22.6
	WB	Left 2	82.2	120.5	65.6	101.9	109.7	87.8	86.1	123.6	61.1	108.2	331.6	101.1	0	15.7	34.6
		Through	82.2	120.5	65.6	101.9	109.7	87.8	86.1	123.6	61.1	108.2	331.6	101.1	0	15.7	34.6
11th	NB	Left 2	190.9	556.7	209.5	187.8	190.3	175.5	232.2	193.3	403.2	186.6	578.2	232.2	36.9	64.8	97.7
		Through	190.9	556.7	209.5	187.8	190.3	175.5	232.2	193.3	403.2	186.6	578.2	232.2	36.9	64.8	97.7
		Right 2	190.9	556.7	209.5	187.8	190.3	175.5	232.2	193.3	403.2	186.6	578.2	232.2	36.9	64.8	97.7
	EB	Left 2	104.1	323.8	85.6	103.6	101.6	106.6	99.9	107.9	297	123.1	341.7	129.9	0	31.8	61.4
		Through	104.1	323.8	85.6	103.6	101.6	106.6	99.9	107.9	297	123.1	341.7	129.9	0	31.8	61.4
		Right 2	104.1	323.8	85.6	103.6	101.6	106.6	99.9	107.9	297	123.1	341.7	129.9	0	31.8	61.4
	SB	Left 2	62.1	136.1	61.7	78.2	46.5	43.3	41.3	40.5	40.8	57.8	199.9	58.5	0	10.9	21.1
		Through	62.1	136.1	61.7	78.2	46.5	43.3	41.3	40.5	40.8	57.8	199.9	58.5	0	10.9	21.1
		Right 2	62.1	136.1	61.7	78.2	46.5	43.3	41.3	40.5	40.8	57.8	199.9	58.5	0	10.9	21.1
	WB	Left 2	107.1	265.3	204.9	86.6	107.1	111.4	130.6	107.3	108.7	87.8	376	131.1	0	25.7	53.2
		Through	107.1	265.3	204.9	86.6	107.1	111.4	130.6	107.3	108.7	87.8	376	131.1	0	25.7	53.2
		Right 2	107.1	265.3	204.9	86.6	107.1	111.4	130.6	107.3	108.7	87.8	376	131.1	0	25.7	53.2
12th	NB	Left 2	61.3	61.3	62.8	61.3	60	60	58.9	60.2	57.9	60.3	130	60.6	0	13.2	21.2
		Through	61.3	61.3	62.8	61.3	60	60	58.9	60.2	57.9	60.3	130	60.6	0	13.2	21.2
		Right 2	61.3	61.3	62.8	61.3	60	60	58.9	60.2	57.9	60.3	130	60.6	0	13.2	21.2
	EB	Left 2	19.2	387.4	202.8	37.8	19	19.3	39.2	20.4	364.4	19.6	403.3	98.2	0	19.9	72.9
		Through	19.2	387.4	202.8	37.8	19	19.3	39.2	20.4	364.4	19.6	403.3	98.2	0	19.9	72.9
		Right 2	19.2	387.4	202.8	37.8	19	19.3	39.2	20.4	364.4	19.6	403.3	98.2	0	19.9	72.9
	SB	Left 2	58.5	217.7	58.6	79.4	56.9	59.3	59.5	81	132.7	82.2	346.3	80.7	0	19	35.3
		Through	58.5	217.7	58.6	79.4	56.9	59.3	59.5	81	132.7	82.2	346.3	80.7	0	19	35.3
		Right 2	58.5	217.7	58.6	79.4	56.9	59.3	59.5	81	132.7	82.2	346.3	80.7	0	19	35.3
	WB	Left 2	39.8	57.6	100.9	40.5	41.1	38.7	41.6	38.9	41	38.9	547.2	41	0	8	23.6
		Through	39.8	57.6	100.9	40.5	41.1	38.7	41.6	38.9	41	38.9	547.2	41	0	8	23.6
		Right 2	39.8	57.6	100.9	40.5	41.1	38.7	41.6	38.9	41	38.9	547.2	41	0	8	23.6
	NB	Left 2	76.9	331	150.1	76.1	97.8	85.1	63.7	83.1	321.9	100.8	511.3	105.3	16.5	29.9	55.6
		Through	76.9	331	150.1	76.1	97.8	85.1	63.7	83.1	321.9	100.8	511.3	105.3	16.5	29.9	55.6
		Right 2	76.9	331	150.1	76.1	97.8	85.1	63.7	83.1	321.9	100.8	511.3	105.3	16.5	29.9	55.6

13th	EB	Left 2	82.7	567.1	564.9	84.6	100.9	84.4	82.1	85.8	583.8	83.7	588	563.5	0	62.6	147.7
		Through	82.7	567.1	564.9	84.6	100.9	84.4	82.1	85.8	583.8	83.7	588	563.5	0	62.6	147.7
		Right 2	82.7	567.1	564.9	84.6	100.9	84.4	82.1	85.8	583.8	83.7	588	563.5	0	62.6	147.7
	SB	Left 2	39.2	88.7	39.2	38.8	36.8	39	39.9	21.9	91.7	26.2	129.2	61.3	0	9.9	20.3
		Through	39.2	88.7	39.2	38.8	36.8	39	39.9	21.9	91.7	26.2	129.2	61.3	0	9.9	20.3
		Right 2	39.2	88.7	39.2	38.8	36.8	39	39.9	21.9	91.7	26.2	129.2	61.3	0	9.9	20.3
	WB	Left 2	19.6	92.7	19.1	19.2	19	19.7	18.5	19.4	125.5	19.2	331.1	23.4	0	5.6	22.1
		Through	19.6	92.7	19.1	19.2	19	19.7	18.5	19.4	125.5	19.2	331.1	23.4	0	5.6	22.1
		Right 2	19.6	92.7	19.1	19.2	19	19.7	18.5	19.4	125.5	19.2	331.1	23.4	0	5.6	22.1
14th	EB	Through	231.7	808.9	794.7	451.8	245.5	342.8	195.5	403.9	807.1	590.7	822.4	794.9	87.4	194.2	251.4
		Right 2	231.7	808.9	794.7	451.8	245.5	342.8	195.5	403.9	807.1	590.7	822.4	794.9	87.4	194.2	251.4
	SB	Left 2	125.7	335.4	124.9	137.7	108.3	169.4	126.8	125.5	641.7	204.8	816.1	189.5	40.1	62.5	93
		Through	125.7	335.4	124.9	137.7	108.3	169.4	126.8	125.5	641.7	204.8	816.1	189.5	40.1	62.5	93
		Right 2	121.7	331.4	120.9	133.7	104.3	165.4	122.8	121.5	637.7	200.8	812.1	185.5	36	58.3	93
	WB	Left 2	274.2	274.5	275.3	273.6	257.6	275.2	257.2	274.6	275.1	275	295.2	274.8	106.2	113.9	105.7
		Through	274.2	274.5	275.3	273.6	257.6	275.2	257.2	274.6	275.1	275	295.2	274.8	106.2	113.9	105.7
Florida	EB	Through	315.4	325.1	326.6	324.5	320.5	324.3	211.4	322.2	335.9	327	348.4	324.6	210.4	185.2	130.9
	WB	Through	52.9	146.2	236.8	79.6	60.1	144.4	61.6	79.1	414.6	104.7	439.4	121.1	0	20.7	60.8
		Right 1	18.3	154.1	195.2	86.5	61.5	113.2	62.9	86.4	422.5	106.4	447.3	114.3	0	16.8	59.1
Starburst	NB	Right 1	445.5	300.1	301.5	344.2	327	391.5	546.2	549.3	548.9	552.5	576.4	545.9	206.3	250.1	168.7
		Right 2	445.5	300.1	301.5	344.2	327	391.5	546.2	549.3	548.9	552.5	576.4	545.9	206.3	250.1	168.7
	NEB	Through	1426.9	1652.2	1487.6	1654.6	1440.2	1010.2	1610.7	1645.8	1273.6	1038.8	1673.2	1624.6	836.5	843.9	430.3
		Right 1	1426.9	1652.2	1487.6	1654.6	1440.2	1010.2	1610.7	1645.8	1273.6	1038.8	1673.2	1624.6	836.5	843.9	430.3
	EB	Left 1	267.8	267.2	284.9	267.6	268.1	285.3	267.6	267.4	267.9	267.4	289.8	267.9	264.8	210.2	82.1
		Through	219.2	218.5	236.3	218.8	218.5	236.7	218.9	218.6	219.2	218.8	241.1	219.2	139.5	114.4	98.6
		Right 3	219.2	218.5	236.3	218.8	218.5	236.7	218.9	218.6	219.2	218.8	241.1	219.2	139.5	114.4	98.6
	SWB	Through	235.8	223.9	224.1	225.6	223.5	225.2	241	225.5	224.6	224.9	279.9	225.2	111.6	104	85.2
		Right 1	235.8	223.9	224.1	225.6	223.5	225.2	241	225.5	224.6	224.9	279.9	225.2	111.6	104	85.2
	WB	Through	475.9	475.8	476.7	476.4	477.5	476.1	476.6	476.5	498.5	476.9	536.4	476.8	198.8	206.5	168.7
		Right 3	475.9	475.8	476.7	476.4	477.5	476.1	476.6	476.5	498.5	476.9	536.4	476.8	198.8	206.5	168.7
Bladensburg/Maryland	NEB	Left 2	145.1	258.1	139.9	167.6	189.3	168.1	145.5	167.2	260.6	145.4	286.7	169	0	32.3	62.5
		Through	145.1	258.1	139.9	167.6	189.3	168.1	145.5	167.2	260.6	145.4	286.7	169	0	32.3	62.5
		Right 2	145.1	258.1	139.9	167.6	189.3	168.1	145.5	167.2	260.6	145.4	286.7	169	0	32.3	62.5
	SEB	Left 2	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	80.6	57.6	176.7	59.4	0	13.3	20.6
		Through	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	80.6	57.6	176.7	59.4	0	13.3	20.6
		Right 2	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	80.6	57.6	176.7	59.4	0	13.3	20.6
	SWB	Left 2	229.4	253.7	353.9	346.4	260.9	308.7	294.8	233.8	189.6	299.5	427.3	297.8	77.1	101.6	101.9
		Through	229.4	253.7	353.9	346.4	260.9	308.7	294.8	233.8	189.6	299.5	427.3	297.8	77.1	101.6	101.9
		Right 2	229.4	253.7	353.9	346.4	260.9	308.7	294.8	233.8	189.6	299.5	427.3	297.8	77.1	101.6	101.9
	NWB	Left 2	64.4	61.6	58.7	59.7	82.6	62.5	62.4	59.9	62.8	61.3	131.6	62.3	16.8	18	23.2
		Through	64.4	61.6	58.7	59.7	82.6	62.5	62.4	59.9	62.8	61.3	131.6	62.3	16.8	18	23.2
		Right 2	64.4	61.6	58.7	59.7	82.6	62.5	62.4	59.9	62.8	61.3	131.6	62.3	16.8	18	23.2
16th	NB	Left 2	127.7	122.9	131.2	125.7	104	102.7	106.2	119.4	177.7	105.7	272.5	125.4	18.5	33.4	42.7
		Through	127.7	122.9	131.2	125.7	104	102.7	106.2	119.4	177.7	105.7	272.5	125.4	18.5	33.4	42.7
		Right 2	127.7	122.9	131.2	125.7	104	102.7	106.2	119.4	177.7	105.7	272.5	125.4	18.5	33.4	42.7
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	40.4	0	0	0	0.7
		Through	40	20.1	19.3	40.2	19.6	19.9	18.8	19.3	38.6	39.1	107.4	21.7	0	3.4	11
		Right 2	0	0	0	0	0	0	0	0	0	0	92.3	0	0	1.1	6.5
	SB	Left 2	19.8	38.1	41.2	40.5	19	19	19.8	18.3	19.8	18.8	65.8	19.7	0	3.6	9.9
		Through	19.8	38.1	41.2	40.5	19	19	19.8	18.3	19.8	18.8	65.8	19.7	0	3.6	9.9
		Right 2	19.8	38.1	41.2	40.5	19	19	19.8	18.3	19.8	18.8	65.8	19.7	0	3.6	9.9
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	62.7	0	0	0.4	3.4
		Through	540.8	599.1	601.9	599.8	532.1	517.8	524.8	601.1	601.3	535.9	671.3	564.6	221.8	256.8	191.5
		Right 2	540.8	599.1	601.9	599.8	532.1	517.8	524.8	601.1	601.3	535.9	671.3	564.6	221.8	256.8	191.5
17th	EB	Left 2	40.6	39.3	38.9	40.1	43.4	60	41.8	58.8	58.6	39.7	147.6	42	0	8	18
		Through	167.1	126.7	143.4	173.4	154.2	153.5	133.5	153.1	128.4	148.9	264.9	149.3	0	42	55
		Right 2	167.1	126.7	143.4	173.4	154.2	153.5	133.5	153.1	128.4	148.9	264.9	149.3	0	42	55
	SB	Left 2	230.6	237.2	249.9	236.3	224.5	215.6	211.5	208.4	214.3	282.1	507.2	231.1	41.5	69.6	79.1
		Through	220.4	241.2	240.2	232.2	215.1	196	197.1	195	228	261.7	549.3	221.3	43	68.9	75.5
		Right 2	208.5	229.3	228.3	220.3	203.2	184	185.1	183	216	249.7	537.4	209.3	31.1	59.6	73.2
	WB	Left 2	17.2	0	16.5	19.3	18.7	18.5	17.4	18.3	18.8	17.7	101.5	18.2	0	1.9	7.6
		Through	863.3	877.5	868	865.6	835.4	879.2	869.4	880.7	859.2	878.5	910	870.7	761.8	748	108.2
		Right 2	855.6	869.8	860.3	857.9	827.7	871.5	861.7	873	851.5	870.8	902.3	863	754.1	740.4	107.9
19th	NB	Left 2	710.8	709.6	711.1	716.5	710.5	718	712.3	710.8	711.2	710.3	735.6	711.5	691.2	622.3	130.1
		Through	710.8	709.6	711.1	716.5	710.5	718	712.3	710.8	711.2	710.3	735.6	711.5	691.2	622.3	130.1
		Right 2	710.8	709.6	711.1	716.5	710.5	718	712.3	710.8	711.2	710.3	735.6	711.5	691.2	622.3	130.1
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	42.7	0	0	0.1	1.8
		Through	56.5	56.4	56.4	56.5	56.6	60.1	55.9	56.1	55.8	55.8	111.5	56.4	0	11	20.2
	WB	Through	622.9	619.7	622.5	620	619.1	621.9	621	623.4	622.6	621.7	646.3	621.6	296.7	311.7	221.8
		Right 2	622.9	619.7	622.5	620	619.1	621.9	621	623.4	622.6	621.7	646.3	621.6	296.7	311.7	221.8
21st	NB	Left 2	61.2	55.8	77.6	61.3	62.5	62.4	79.4	60.2	43.1	43.6	147.7	61.3	0	14.5	21.8
		Through	61.2	55.8	77.6	61.3	62.5	62.4	79.4	60.2	43.1	43.6	147.7	61.3	0	14.5	21.8
		Right 2	61.2	55.8	77.6	61.3	62.5	62.4	79.4	60.2	43.1	43.6	147.7	61.3	0	14.5	21.8
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.5	0	0	0.2	1.9
		Through	85.4	62.8	66.2	74.8	83.4	67.1	80.9	69.7	63.1	64.3	211.7	67.6	0	12.1	27
		Right 2	85.4	62.8	66.2	74.8	83.4	67.1	80.9	69.7	63.1	64.3	211.7	67.6	0	12.1	27
	SB	Left 2	59.9	59.8	41.2	41.2	59.6	42.2	59.7	59.5	61.2	61.8	126	59.8	0	13.3	20.1
		Through	59.9	59.8	41.2	41.2	59.6	42.2	59.7	59.5	61.2	61.8	126	59.8	0	13.3	20.1
		Right 2	59.9	59.8	41.2	41.2	59.6	42.2	59.7	59.5	61.2	61.8	126	59.8	0	13.3	20.1
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	39	0	0	0.1	1.6
		Through	592.5	594.1	594.2	594.2	592.9	592.8	593.3	592.5	594	594.1	617.3	593.6	244.5	282.6	249.6
		Right 2	592.5	594.1	594.2	594.2	592.9	592.8	593.3	592.5	594	594.1	617.3	593.6	244.5	282.6	249.6
24th	NB	Left 2	40.2	41.8	41.3	37.4	38.9	40.3	56.9	21.8	38.6	39.3	144.6	39.8	0	7.1	15.8
		Right 2	40.2	41.8	41.3	37.4	38.9	40.3	56.9	21.8	38.6	39.3	144.6	39.8	0	7.1	15.8
	EB	Through	18.9	18.3	17.7	17.8	0	18.6	18.1	19	17.7	18.1	127.5	18	0	2	9.3
	WB	Through	505.8	507.3	508.2	510.1	498.9	502.8	507.3	515	511.2	511.3	540.2	508.2	49.9	170.7	201.5
26th	EB	Left 2	27.1	0	28.1	19.2	38.1	29	29.4	28.1	19.2	40.3	89.1	27.8	0	3.5	10.5
		Through	59.1	52.5	65.7	42.4	59.6	58.5	42.3	45.2	53.6	62.4	173	58.8	0	7.1	19.5
	SB	Left 2	83.7	80.6	80.5	80.6	60.7	81	59.3	79.6	65	100.6	152	79.6	0	18.8	27.8
		Right 2	71.1	68	67.9	68	48.1	68.4	46.7	67	52.4	88	139.4	67	0	11.6	24.1
	WB	Through	281.9	282.7	279.8	281.8	275.4	281.6	282.6	281.8	284.8	279.6	307.9	281.8	18.6	84.4	105.9
		Right 2	281.9	282.7	279.8	281.8	275.4	281.6	282.6	281.8	284.8	279.6	307.9	281.8	18.6	84.4	105.9
Oklahoma	NEB	Left 3	61.3	61.3	54.1	57.4	39.5	60.7	60.9	41.2	58.2	63	154.9	58.3	0	10.9	20.4
		Right 1	41.5	41.5	34.3	37.6	19.8	40.9	41.1	21.4	38.5	43.2	135.2	38.6	0	4.7	14.2
	EB	Through	79	78.4	78.4	79.8	79.4	78.8	79.2	79	78.4	79	182.4	79	0	10	23.6
		Right 3	79	78.4	78.4	79.8	79.4	78.8	79.2	79	78.4	79	182.4	79	0	10	23.6
	WB	Left 1	1645.8	1645.9	1652.2	1650.9	385.5	1572.8	1644	1623.8	1652	1228.2	1674.1	1644.8	0	363	568.3
		Through	1645.8	1645.9	1652.2	1650.9	385.5	1572.8	1644	1623.8	1652	1228.2	1674.1	1644.8	0	363	568.3

Travel Times for Scenario 2d: 2040 No-Build AM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.6	331.2	166	467.1	100	431.4	117	347.2	158	421.7	150	349.8	163	439	146	370.8	156	388.6	126	377.7	147	387.5	147.6	229.3	1287.5	11.5	19.4
EB H: Union to Kaiser	2	708.4	24.3	617	24.8	595	24.2	588	24	587	24.5	600	24.1	638	52.2	560	26.3	626	24.6	632	28	613	27.5	35.3	16.9	586	17.6	28.5
EB H: Kaiser to 3rd	3	593.2	27	654	27	616	26	614	26	598	41.2	597	27.8	633	81.7	530	55.1	596	33.5	611	43.8	595	38.2	62.8	14.2	836.6	10.6	28.5
EB H: 3rd to 4th	4	426.6	15.5	537	16	515	17.5	502	15.8	506	59.5	481	27.8	524	94.9	415	56.5	469	55.7	489	61.7	492	40.6	84	10.3	872.7	7.2	28.3
EB H: 4th to 5th	5	595	47.1	549	46.5	523	88.2	516	61.1	512	120.3	471	76.2	525	190.3	418	144.6	451	130.3	482	124.8	478	99.7	149.6	14.3	980.3	4.1	28.3
EB H: 6th to 7th	6	651.5	21	481	21	447	22.2	441	21.3	435	22.1	411	21.7	441	23.1	330	21.7	375	22.7	401	21.2	410	21.7	11.6	15.5	115.3	20.5	28.6
EB H: 7th to 8th	7	334	21.6	459	22.2	416	21	424	21	427	24.3	406	20.6	435	22.6	336	23.6	369	22.2	397	21.3	404	22	17.6	7.9	119.3	10.4	29
EB H: 8th to 9th	8	339.8	22	450	22.6	388	22.8	422	22.4	416	21.4	390	21.9	424	20.4	328	22.3	363	21.2	381	22.3	389	22	16.4	8.1	106.5	10.5	28.6
EB H: 9th to 10th	9	315.6	9.5	446	11.6	382	10.6	426	9.6	426	11.5	388	9.9	436	12.2	348	10.5	384	11.2	395	9.4	415	10.5	7.2	7.4	145.6	20.5	29
EB H: 10th to 11th	10	315.6	18.4	459	19.5	357	17.1	438	18.2	448	16.9	415	17.9	437	18	359	18.2	404	17.8	386	19.8	428	18.2	17.2	7.4	258.6	11.8	29.1
EB H: 11th to 12th	11	360.1	15.2	463	22.5	341	20.2	426	15.3	448	15.1	428	14.9	446	15.5	371	15.2	408	15.1	361	15.4	429	16.3	19.4	8.5	362.9	15.1	29
EB H: 12th to 13th	12	557.6	23.1	482	68.7	318	71.1	403	23.7	476	23.8	443	23.6	479	23.5	395	23.7	430	43	336	23.6	455	33	52.6	13.3	815.7	11.5	28.6
EB H: 13th to 14th	13	781.2	56	500	202.5	279	165.5	354	85.5	459	58.7	436	80	477	50.4	413	60.6	404	111.7	293	104.2	423	91.2	123.7	19.6	1159.6	5.8	27.2
EB H: 14th to Starburst (incl ped sig)	14	512.1	30.4	391	26.3	226	26.7	283	25.9	371	29	340	29.5	390	29.3	350	28.8	329	26.3	253	26.9	356	28.1	21.5	12.5	265.1	12.4	27.8
WB H	15	6427.2	267.7	750	282.1	703	284.1	684	273.4	675	273	718	270.1	690	274	700	275.8	706	285.7	694	278.6	674	276.4	48.2	186.9	538.7	15.9	23.4
WB H: Starburst to 14th (incl. ped sig)	16	480.6	32.1	1341	40.4	1399	40.7	1331	35.6	1345	32.7	1342	34.9	1283	31.6	1373	34	1376	44	1300	38	1326	36.4	28.2	11.5	481.1	9	28.5
WB H: 14th to 13th	17	799.1	24.2	1256	25.9	1258	24.4	1240	24.1	1244	24.3	1238	24	1211	23.9	1292	24.1	1269	26.3	1196	24.2	1220	24.5	9.3	19.3	206.5	22.2	28.3
WB H: 13th to 12th	18	554.2	16.9	1285	17.7	1261	19.4	1271	16.7	1274	17.2	1265	17	1238	17.5	1315	17	1303	16.6	1218	16.9	1244	17.3	6.3	13.3	88.3	21.8	28.5
WB H: 12th to 11th	19	364	15.3	1325	18	1265	18	1284	14.3	1310	15.3	1298	15.5	1255	15.8	1350	15	1334	15.1	1253	14.6	1264	15.7	11.2	8.7	323.7	15.8	28.6
WB H: 11th to 10th	20	319.4	12.6	1239	13.3	1181	13	1171	12.4	1225	13.9	1232	13.1	1181	13.2	1260	13.6	1235	11.8	1185	12.8	1190	13	11.2	7.5	109.5	16.8	29.1
WB H: 10th to 9th	21	315.3	11.4	1245	12.7	1186	11.8	1180	11.7	1212	11.5	1229	11.4	1186	12.1	1253	11.9	1245	11.1	1182	13.3	1185	11.9	7.3	7.6	59.4	18.1	28.4
WB H: 9th to 8th	22	333.3	16.3	1252	17	1211	17.7	1196	17.5	1229	16.5	1214	17.1	1202	17.5	1249	18.3	1266	16	1196	18.2	1210	17.2	11.9	7.8	102.3	13.2	29.1
WB H: 8th to 7th	23	348.1	12.6	1235	12.9	1208	13.6	1211	13.5	1237	12.7	1218	13.2	1205	12.9	1236	12.9	1252	13.1	1198	13.2	1213	13	10.2	8.1	94.3	18.3	29.2
WB H: 7th to 6th	24	641	24	1272	22.6	1239	23.9	1245	25.2	1269	24.2	1253	25	1235	23.8	1256	24.4	1277	24.5	1237	22.4	1231	24	14.4	15.3	91.8	18.2	28.6
WB H: 6th to 4th	25	599.5	37.1	1269	38.3	1244	38.5	1233	37.6	1254	39.2	1245	38.2	1260	40.3	1239	38.5	1274	42.2	1228	39.8	1219	39	19	14.6	238.5	10.5	27.9
WB H: 4th to 3rd	26	413.5	25.2	1359	25	1312	25.7	1300	24	1335	26.4	1314	23.7	1320	26.4	1317	25.9	1346	27.1	1283	24.8	1276	25.4	12.8	9.9	144.6	11.1	28.4
WB H: 3rd to Kaiser	27	589.2	18.4	1259	18.1	1228	18.2	1228	18.1	1232	18.2	1238	18	1245	18.2	1253	18.2	1241	17.8	1194	18.1	1178	18.1	3.2	14.4	58.3	22.2	28

WB H: Kaiser to Union	28	647.4	17.7	1319	17.6	1280	17.7	1294	17.7	1287	17.8	1279	17.7	1287	17.9	1272	17.8	1304	17.6	1256	17.6	1271	17.7	1.8	15.4	53.6	24.9	28.7
EB Benning	29	4103	162	415	159.9	311	161.2	351	159	365	161.7	376	160.1	371	158.8	373	160.3	373	161.3	289	159.3	360	160.4	35.4	102.2	438.7	17.4	27.4
EB Benning: Starbust to 16th	30	621.7	24.5	624	25.8	460	25.2	503	24	577	24.3	574	23.8	590	24.5	589	24.6	573	25.2	468	24.1	557	24.6	14.5	15	75	17.2	28.3
WB Benning: 16th to 17th	31	636.9	39.1	664	35.8	526	37.6	575	40	621	38.3	610	37.7	617	38	620	38.3	592	37.6	521	38.1	597	38.1	17.3	15	91	11.4	29
EB Benning: 17th to 19th	32	827.2	30.6	578	31	448	30.8	509	30	520	31.1	528	31.4	524	30.1	541	30.2	503	31.4	441	30.4	505	30.7	15.2	19.7	102.9	18.4	28.7
EB Benning: 19th to 21st	33	671.8	23.3	909	23	736	23.2	835	23	829	24	841	23.1	827	23.4	849	23.8	821	23.3	752	23.5	847	23.3	8.8	16.1	101.8	19.7	28.5
EB Benning: 21st to 24th	34	583.1	18	936	17.8	778	17.8	860	17.9	848	17.9	858	17.8	836	17.8	860	17.8	868	17.7	790	17.8	858	17.8	6.2	13.8	67.5	22.3	28.9
EB Benning: 24th to 26th	35	513.5	16.7	915	16.5	778	17.1	860	16.1	836	16.7	839	16.8	827	15.9	828	16.5	852	16.5	786	17.1	855	16.6	6.2	12.2	51.7	21.1	28.7
EB Benning: 26th to OK	36	237.9	8.7	930	9.1	806	9.5	877	9.6	846	9.6	861	8.9	839	9.2	838	9.1	867	9.3	798	9.1	867	9.2	6.9	5.5	63.3	17.6	29.2
WB Benning	37	4173.3	352.6	1209	371	1259	358.9	1217	355	1245	304.9	1298	335.9	1222	331.2	1244	361.9	1219	370.8	1202	354.2	1245	349.4	105.5	148.6	760.5	8.1	19.2
WB Benning: OK to 26th	38	273.5	19.6	2238	20.1	2293	19.6	2240	20.1	2218	15.5	2384	18.8	2299	19.7	2276	20.4	2271	19.6	2290	18.8	2285	19.2	17.1	6.4	135.8	9.7	29.1
WB Benning: 26th to 24th	39	496.1	35.4	2000	39.8	2057	37.9	1990	39.7	1996	29.5	2118	33.2	2062	35.2	2037	39.9	2000	38.5	2049	34.7	2056	36.3	30.7	11.8	218.3	9.3	28.6
WB Benning: 24th to 21st	40	583	57.5	1998	70.4	2032	62.6	1989	60.5	1987	49.4	2111	56.4	2034	55.8	2010	64	1980	63.8	2029	57.3	2027	59.7	41.6	14	276.4	6.7	28.4
WB Benning: 21st to 19th	41	598.6	65.2	1972	66.2	2010	68.8	1992	57.7	1981	52.5	2100	60.5	2007	55.2	1991	61.8	1963	67.2	1997	67.1	2000	62.2	31.1	14.7	247.7	6.6	27.7
WB Benning: 19th to 17th	42	875.1	86	1851	80.7	1900	83.4	1904	84.7	1896	71.1	1943	83.1	1889	75.9	1919	84.2	1866	84.1	1874	83.6	1895	81.6	31.1	22	306	7.3	27.1
WB Benning: 17th to 16th	43	655.6	47.6	1723	49.5	1804	46.1	1694	49.4	1770	43.3	1822	44.2	1706	45.3	1798	50.5	1751	49.3	1693	47.4	1758	47.2	28.3	16.4	292.3	9.5	27.3
WB Benning: 16th to Starburst	44	678.1	53.6	1673	56.2	1759	56.7	1659	54.8	1735	54.5	1774	54.5	1678	54.5	1754	56.1	1682	60.5	1630	56.8	1711	55.8	24.2	16.3	210.3	8.3	28.3
EB Corridor	45	9924.3	485.1	116	604.2	75	575.2	87	494.2	104	576.5	97	502.9	103	569.3	99	528.7	100	532.2	89	511.2	98	534.5	177.4	329.4	1322.7	12.7	20.5
WB Corridor	46	10604.9	608	489	651.2	446	641.7	467	622.1	454	583.5	458	599.6	457	596.2	425	637.3	456	664.6	452	629.7	438	623.4	123.4	393	1222.5	11.6	18.4

Movement Group Delay for Scenario 2d: 2040 No-Build PM			
Intersection Name	**Intersection Number**	**All**	**LOS**
Union Garage	10	9.9	A
Kaiser Garage	20	3.6	A
3rd	30	19.7	B
4th	40	16.6	B
6th	60	15.3	B
7th	70	7.5	A
8th	80	23.1	C
9th	90	5.8	A
10th	100	10.2	B
11th	110	28.6	C
12th	120	15.1	B
13th	130	33.6	C
14th	140	37.6	D
Florida	150	6.2	A
Starburst	151	45.8	D
Bladensburg/Maryland	152	12.3	B
16th	160	8.6	A
17th	170	21.9	C
19th	190	5.3	A
21st	210	10	A
24th	240	3.1	A
26th	260	5.7	A
Oklahoma	270	3.2	A

Queue Lengths for Scenario 2d: 2040 No-Build PM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	84.8	105	100.8	83.2	99.9	81.4	82.1	80.1	62	79.1	191.3	83	17	23.4	30.3
		Right 2	84.8	105	100.8	83.2	99.9	81.4	82.1	80.1	62	79.1	191.3	83	17	23.4	30.3
	EB	Through	83.5	101.4	84.2	101.3	83.3	84.8	87.3	102.8	84.9	78.2	190.6	85.7	0	15.5	31.1
		Right 2	83.5	101.4	84.2	101.3	83.3	84.8	87.3	102.8	84.9	78.2	190.6	85.7	0	15.5	31.1
	WB	Left 2	83.2	126.9	176.4	250.4	125.9	151.9	103.4	126.5	81.2	82.6	270.4	147.4	19.9	42.5	50.1
		Through	41	41.9	39.6	40.2	40.2	40.3	39	21.7	39.4	37.9	132.1	39.9	0	3.9	13.7
Kaiser Garage	NB	Left 2	40.2	37.9	36.6	38.8	39.2	39.2	20.1	19.4	40.4	40.3	111.3	39.2	0	6.8	13.4
		Right 2	40.2	37.9	36.6	38.8	39.2	39.2	20.1	19.4	40.4	40.3	111.3	39.2	0	6.8	13.4
	EB	Through	40.6	38.3	40.3	39.3	43.4	44.1	40.4	56.4	38.3	61.1	266.8	41.2	0	6.5	18.2
		Right 2	40.6	38.3	40.3	39.3	43.4	44.1	40.4	56.4	38.3	61.1	266.8	41.2	0	6.5	18.2
	WB	Left 2	18	0	0	0	19	17.2	0	17.3	0	16.4	43.9	0	0	1	4.4
		Through	59.3	59.7	41.3	56.1	41.4	42.8	46.4	58.5	44.9	58.9	151.4	55.6	0	7	18.7
3rd	NB	Left 2	61.3	61.2	80.8	64.2	87.6	61.2	61.4	85.7	82.6	66.4	241.2	66.8	0	18.7	27.8
		Through	61.3	61.2	80.8	64.2	87.6	61.2	61.4	85.7	82.6	66.4	241.2	66.8	0	18.7	27.8
		Right 2	61.3	61.2	80.8	64.2	87.6	61.2	61.4	85.7	82.6	66.4	241.2	66.8	0	18.7	27.8
	EB	Left 2	184	179.5	188.7	177.5	185	184.1	193.3	184.3	208.4	226.7	480	195.3	18.3	51.2	71.3
		Through	184	179.5	188.7	177.5	185	184.1	193.3	184.3	208.4	226.7	480	195.3	18.3	51.2	71.3
		Right 2	184	179.5	188.7	177.5	185	184.1	193.3	184.3	208.4	226.7	480	195.3	18.3	51.2	71.3
	SB	Left 2	400.7	401.2	403.7	391.4	395	397.1	396.1	394.9	405.7	406.1	432.8	400.1	124	163.3	141.7
		Through	400.7	401.2	403.7	391.4	395	397.1	396.1	394.9	405.7	406.1	432.8	400.1	124	163.3	141.7
		Right 2	391.2	391.7	394.3	381.9	385.5	387.7	386.7	385.4	396.2	396.7	423.3	390.7	114.5	154.6	140.9
	WB	Left 2	111.9	132.1	131.8	136.1	127.2	106.3	107.4	144.9	131	111.4	374.2	127.1	0	30.4	44.7
		Through	111.9	132.1	131.8	136.1	127.2	106.3	107.4	144.9	131	111.4	374.2	127.1	0	30.4	44.7
		Right 2	111.9	132.1	131.8	136.1	127.2	106.3	107.4	144.9	131	111.4	374.2	127.1	0	30.4	44.7
4th	EB	Through	64.3	59.5	63.2	61.9	62.6	65.2	63.8	78.3	69.8	63.5	154	63.8	0	12.7	24.5
		Right 2	64.3	59.5	63.2	61.9	62.6	65.2	63.8	78.3	69.8	63.5	154	63.8	0	12.7	24.5
	SB	Left 2	436.7	430.7	332.1	435.5	444.5	438.1	434.7	432	435.3	434.6	467.3	435.2	184.4	205	152.8
		Through	436.7	430.7	332.1	435.5	444.5	438.1	434.7	432	435.3	434.6	467.3	435.2	184.4	205	152.8
		Right 2	417.7	289.6	165.7	94.1	369.2	423.5	181.5	363.4	361.3	274.3	460.7	310.8	0	32.2	97.6
	WB	Left 2	99	85.3	101.4	98.9	99.7	113.2	100.1	101.2	103	111.4	381.7	102.4	0	19.5	37.9
		Through	99	85.3	101.4	98.9	99.7	113.2	100.1	101.2	103	111.4	381.7	102.4	0	19.5	37.9
6th	NB	Left 2	348.7	272.3	239.8	236.9	246.8	210	238.1	203.4	256.7	257.9	538.2	255.5	60.5	83.8	87.8
		Through	348.7	272.3	239.8	236.9	246.8	210	238.1	203.4	256.7	257.9	538.2	255.5	60.5	83.8	87.8
		Right 2	337.1	260.7	228.2	225.2	235.2	198.4	226.5	191.8	245.1	246.3	526.6	243.9	48.9	74.8	85.4
	EB	Left 2	218	192.5	231.6	235.2	265.8	256	294.4	254.9	315.4	277.7	605.6	256	0	52.5	88.1
		Through	218	192.5	231.6	235.2	265.8	256	294.4	254.9	315.4	277.7	605.6	256	0	52.5	88.1
	WB	Through	95.8	97.9	103.1	88	106.6	107.6	82.1	100.1	109.4	107.3	247.5	102.8	0	20.3	36.9
		Right 2	95.8	97.9	103.1	88	106.6	107.6	82.1	100.1	109.4	107.3	247.5	102.8	0	20.3	36.9
7th	EB	Left 2	153.1	128.6	144.1	173.6	195.3	130	225.7	174.9	177.1	172.4	475.7	164.9	0	24.2	59.3
		Through	153.1	128.6	144.1	173.6	195.3	130	225.7	174.9	177.1	172.4	475.7	164.9	0	24.2	59.3
		Right 2	153.1	128.6	144.1	173.6	195.3	130	225.7	174.9	177.1	172.4	475.7	164.9	0	24.2	59.3
	SB	Left 2	81.9	81.6	84.8	81.3	85.6	65	82.4	102.4	81.9	64.4	169.7	82.6	0	20.2	29
		Through	81.9	81.6	84.8	81.3	85.6	65	82.4	102.4	81.9	64.4	169.7	82.6	0	20.2	29
		Right 2	81.9	81.6	84.8	81.3	85.6	65	82.4	102.4	81.9	64.4	169.7	82.6	0	20.2	29
	WB	Left 2	61.5	42.1	59.1	57.9	61	61.6	60.4	61.5	62.4	62.7	145.1	60.9	0	9	20.6
		Through	61.5	42.1	59.1	57.9	61	61.6	60.4	61.5	62.4	62.7	145.1	60.9	0	9	20.6
		Right 2	61.5	42.1	59.1	57.9	61	61.6	60.4	61.5	62.4	62.7	145.1	60.9	0	9	20.6
8th	NB	Left 2	199.9	149.2	190.8	244.5	194.3	169.6	172	169.6	202.7	212.4	518.9	189.8	39	56.1	66.8
		Through	199.9	149.2	190.8	244.5	194.3	169.6	172	169.6	202.7	212.4	518.9	189.8	39	56.1	66.8
		Right 2	185.5	134.7	176.4	230.1	179.9	155.2	157.6	155.2	188.2	197.9	504.5	175.4	24.6	46.1	63.2
	EB	Left 2	98.5	82.5	103.3	67.2	82.9	102.2	108.5	104.6	147.8	102.3	362.8	101.3	0	20.9	39.9
		Through	98.5	82.5	103.3	67.2	82.9	102.2	108.5	104.6	147.8	102.3	362.8	101.3	0	20.9	39.9
		Right 2	98.5	82.5	103.3	67.2	82.9	102.2	108.5	104.6	147.8	102.3	362.8	101.3	0	20.9	39.9
	SB	Left 2	458	455.8	459.1	455.5	459.8	459.2	462.8	463.4	455	456.3	488.2	459.2	261	258	155.6
		Through	458	455.8	459.1	455.5	459.8	459.2	462.8	463.4	455	456.3	488.2	459.2	261	258	155.6
		Right 2	447	444.7	448	444.4	448.8	448.2	451.8	452.4	443.9	445.2	477.1	448.2	250	247.5	154.7
	WB	Left 2	65.7	64.9	77.8	77	66.6	79.5	83.5	80.7	65.5	67.4	169.5	78.9	0	13.2	26.2
		Through	65.7	64.9	77.8	77	66.6	79.5	83.5	80.7	65.5	67.4	169.5	78.9	0	13.2	26.2
		Right 2	65.7	64.9	77.8	77	66.6	79.5	83.5	80.7	65.5	67.4	169.5	78.9	0	13.2	26.2
9th	NB	Left 2	42.6	59.9	40.5	61.9	42.1	59.3	39.9	41.5	58.8	63.3	194.1	58.6	0	11.4	19.6
		Through	42.6	59.9	40.5	61.9	42.1	59.3	39.9	41.5	58.8	63.3	194.1	58.6	0	11.4	19.6
		Right 2	42.6	59.9	40.5	61.9	42.1	59.3	39.9	41.5	58.8	63.3	194.1	58.6	0	11.4	19.6
	EB	Left 2	39.1	59.3	40.5	45.8	41.1	40.1	41.8	40.9	41.7	44.7	213.5	41.3	0	7.4	17.7
		Through	39.1	59.3	40.5	45.8	41.1	40.1	41.8	40.9	41.7	44.7	213.5	41.3	0	7.4	17.7
		Right 2	39.1	59.3	40.5	45.8	41.1	40.1	41.8	40.9	41.7	44.7	213.5	41.3	0	7.4	17.7
	SB	Left 2	63	59.3	62.1	62.9	62.8	62.8	59.8	59.1	60.2	64	123.4	61.8	0	14.1	21.1
		Through	63	59.3	62.1	62.9	62.8	62.8	59.8	59.1	60.2	64	123.4	61.8	0	14.1	21.1
		Right 2	63	59.3	62.1	62.9	62.8	62.8	59.8	59.1	60.2	64	123.4	61.8	0	14.1	21.1
	WB	Left 2	58.5	41.7	40.2	38.6	40.9	59.1	55.3	60.6	55.2	42.4	163.8	43	0	8.1	18.2
		Through	58.5	41.7	40.2	38.6	40.9	59.1	55.3	60.6	55.2	42.4	163.8	43	0	8.1	18.2
		Right 2	58.5	41.7	40.2	38.6	40.9	59.1	55.3	60.6	55.2	42.4	163.8	43	0	8.1	18.2
10th	NB	Left 2	103.3	104.9	125.2	103.4	125	87.8	103.5	103	110.5	101.6	258.3	105	18.2	29.3	37.8
		Right 2	103.3	104.9	125.2	103.4	125	87.8	103.5	103	110.5	101.6	258.3	105	18.2	29.3	37.8
	EB	Through	59	60.6	59.2	58.2	64	61.6	62.2	61.4	43	62.7	208.4	60.7	0	12.9	23.2
		Right 2	59	60.6	59.2	58.2	64	61.6	62.2	61.4	43	62.7	208.4	60.7	0	12.9	23.2
	SB	Left 2	83.3	81.6	79.6	80.4	84.6	83	86	102.5	105.9	101	278.8	86.1	16.7	23	33.4
		Through	83.3	81.6	79.6	80.4	84.6	83	86	102.5	105.9	101	278.8	86.1	16.7	23	33.4
		Right 2	83.3	81.6	79.6	80.4	84.6	83	86	102.5	105.9	101	278.8	86.1	16.7	23	33.4
	WB	Left 2	102.3	102.9	85.9	102.6	102.9	87	82.3	116.1	86.9	85.9	227.3	88.2	0	19.8	33.8
		Through	102.3	102.9	85.9	102.6	102.9	87	82.3	116.1	86.9	85.9	227.3	88.2	0	19.8	33.8
11th	NB	Left 2	140.4	121.3	105.4	85.6	145.5	120.6	84.4	169.1	126.2	226.1	389.2	125.3	17.7	34.1	48.6
		Through	140.4	121.3	105.4	85.6	145.5	120.6	84.4	169.1	126.2	226.1	389.2	125.3	17.7	34.1	48.6
		Right 2	140.4	121.3	105.4	85.6	145.5	120.6	84.4	169.1	126.2	226.1	389.2	125.3	17.7	34.1	48.6
	EB	Left 2	82.4	63.2	63.9	65.5	78.8	75.3	82.7	80.7	80.9	61.7	334.3	77.7	0	15	30.8
		Through	82.4	63.2	63.9	65.5	78.8	75.3	82.7	80.7	80.9	61.7	334.3	77.7	0	15	30.8
		Right 2	82.4	63.2	63.9	65.5	78.8	75.3	82.7	80.7	80.9	61.7	334.3	77.7	0	15	30.8
	SB	Left 2	443.5	445.7	448.8	440.6	385	440.4	349.6	452.9	452	453.7	480.4	444.3	111	152.2	144.6
		Through	443.5	445.7	448.8	440.6	385	440.4	349.6	452.9	452	453.7	480.4	444.3	111	152.2	144.6
		Right 2	443.5	445.7	448.8	440.6	385	440.4	349.6	452.9	452	453.7	480.4	444.3	111	152.2	144.6
	WB	Left 2	366.2	363.1	371.3	185.2	375.7	375.7	372.9	391.3	372.2	370.2	398.1	372.9	189.5	196	127.4
		Through	366.2	363.1	371.3	185.2	375.7	375.7	372.9	391.3	372.2	370.2	398.1	372.9	189.5	196	127.4
		Right 2	366.2	363.1	371.3	185.2	375.7	375.7	372.9	391.3	372.2	370.2	398.1	372.9	189.5	196	127.4
12th	NB	Left 2	57.3	41.2	41.9	39.6	138.2	40.9	88	299.6	38.6	40.5	388.7	66.5	0	12.3	36
		Through	57.3	41.2	41.9	39.6	138.2	40.9	88	299.6	38.6	40.5	388.7	66.5	0	12.3	36
		Right 2	57.3	41.2	41.9	39.6	138.2	40.9	88	299.6	38.6	40.5	388.7	66.5	0	12.3	36
	EB	Left 2	198.3	107.6	82.3	142.1	83.6	80.8	82.1	107.7	102.8	102.8	397.3	105.3	0	21.7	45.4
		Through	198.3	107.6	82.3	142.1	83.6	80.8	82.1	107.7	102.8	102.8	397.3	105.3	0	21.7	45.4
		Right 2	198.3	107.6	82.3	142.1	83.6	80.8	82.1	107.7	102.8	102.8	397.3	105.3	0	21.7	45.4
	SB	Left 2	38.9	40.5	38.4	39.8	41.5	41.3	18.7	41.2	40.6	106	148.1	41	0	6.9	18.3
		Through	38.9	40.5	38.4	39.8	41.5	41.3	18.7	41.2	40.6	106	148.1	41	0	6.9	18.3
		Right 2	38.9	40.5	38.4	39.8	41.5	41.3	18.7	41.2	40.6	106	148.1	41	0	6.9	18.3
	WB	Left 2	98.2	105	111.5	64.6	562	395.7	583.8	566.9	558.1	415.3	593.9	562.3	0	99.8	173
		Through	98.2	105	111.5	64.6	562	395.7	583.8	566.9	558.1	415.3	593.9	562.3	0	99.8	173

		Right 2	98.2	105	111.5	64.6	562	395.7	583.8	566.9	558.1	415.3	593.9	562.3	0	99.8	173
13th	NB	Left 2	233.1	339.1	299.2	538.4	238.9	449.7	532.1	563.1	296	345.2	585.7	532.1	99.3	148.2	155.6
		Through	233.1	339.1	299.2	538.4	238.9	449.7	532.1	563.1	296	345.2	585.7	532.1	99.3	148.2	155.6
		Right 2	233.1	339.1	299.2	538.4	238.9	449.7	532.1	563.1	296	345.2	585.7	532.1	99.3	148.2	155.6
	EB	Left 2	497.9	84.8	119.3	475.8	63.3	240.8	148.4	64.7	434.2	171.3	585	275.7	0	42	100.7
		Through	497.9	84.8	119.3	475.8	63.3	240.8	148.4	64.7	434.2	171.3	585	275.7	0	42	100.7
		Right 2	497.9	84.8	119.3	475.8	63.3	240.8	148.4	64.7	434.2	171.3	585	275.7	0	42	100.7
	SB	Left 2	754.8	754.2	749.7	752	748.8	754.3	749.4	756.4	752.2	750.2	782.9	753.1	288.4	349	267.8
		Through	754.8	754.2	749.7	752	748.8	754.3	749.4	756.4	752.2	750.2	782.9	753.1	288.4	349	267.8
		Right 2	754.8	754.2	749.7	752	748.8	754.3	749.4	756.4	752.2	750.2	782.9	753.1	288.4	349	267.8
	WB	Left 2	188.8	174.4	168.2	171.9	471.8	181.3	330	804.1	169	172.5	830	305.1	23.7	80.2	144.5
		Through	188.8	174.4	168.2	171.9	471.8	181.3	330	804.1	169	172.5	830	305.1	23.7	80.2	144.5
		Right 2	188.8	174.4	168.2	171.9	471.8	181.3	330	804.1	169	172.5	830	305.1	23.7	80.2	144.5
14th	EB	Through	708.2	610.8	679	783.9	631.9	766	669.8	356	706.4	665.7	816.6	676.4	168.6	219.6	216.4
		Right 2	708.2	610.8	679	783.9	631.9	766	669.8	356	706.4	665.7	816.6	676.4	168.6	219.6	216.4
	SB	Left 2	1224.7	1227	1220.6	1220.5	1225.1	1223.6	1223.6	1220.6	1226.4	1225.6	1254.3	1224	1084.4	909	363.4
		Through	1224.7	1227	1220.6	1220.5	1225.1	1223.6	1223.6	1220.6	1226.4	1225.6	1254.3	1224	1084.4	909	363.4
		Right 2	1220.7	1223	1216.6	1216.5	1221.1	1219.5	1219.6	1216.6	1222.3	1221.6	1250.3	1220	1080.4	905.1	363.4
	WB	Left 2	80.5	152.5	83.5	112.3	85.1	109.8	94.1	256.5	66.2	162.2	298.5	127.4	0	26.3	47.7
		Through	80.5	152.5	83.5	112.3	85.1	109.8	94.1	256.5	66.2	162.2	298.5	127.4	0	26.3	47.7
Florida	EB	Through	126	121.4	142.9	127.7	142.8	125.7	106	99.8	118.8	122.8	339.2	123.4	0	21.2	46.1
	WB	Through	0	20.7	0	19.3	41.8	40.8	19.2	61.4	21.6	18.3	177.8	33.9	0	3.7	16.1
		Right 1	0	17.8	0	17.2	0	36.6	0	66.2	18	18.7	185.7	17.8	0	3	15.3
Starburst	NB	Right 1	235.4	189	193.7	212.9	232	195.2	460.8	388.9	350	297.2	571.7	332	104.9	130.6	100.6
		Right 2	235.4	189	193.7	212.9	232	195.2	460.8	388.9	350	297.2	571.7	332	104.9	130.6	100.6
	NEB	Through	1652.5	1640.8	1650.1	1650.8	1566.2	1467.5	1565.2	1578.5	1206.8	1255.7	1673.9	1640.8	864.8	899.2	451.4
		Right 1	1652.5	1640.8	1650.1	1650.8	1566.2	1467.5	1565.2	1578.5	1206.8	1255.7	1673.9	1640.8	864.8	899.2	451.4
	EB	Left 1	265.3	134.6	264.8	264.9	265.6	221.8	133.4	135.8	265.1	235	290.2	242	19.5	53.4	74
		Through	217.5	217.2	217.7	217.7	218.5	217.8	217	215.5	217.7	217.4	241.5	217.5	0	56.7	76.6
		Right 3	217.5	217.2	217.7	217.7	218.5	217.8	217	215.5	217.7	217.4	241.5	217.5	0	56.7	76.6
	SWB	Through	141.3	148.5	141.9	137.6	137.1	142.1	154.9	146.6	167.2	147.2	279.6	146.6	54.7	54.7	53.3
		Right 1	141.3	148.5	141.9	137.6	137.1	142.1	154.9	146.6	167.2	147.2	279.6	146.6	54.7	54.7	53.3
	WB	Through	214	203.8	169.7	191.2	184.8	202.2	198.9	208.8	208.8	204.5	453.2	203.1	50.4	68.7	73.9
		Right 3	214	203.8	169.7	191.2	184.8	202.2	198.9	208.8	208.8	204.5	453.2	203.1	50.4	68.7	73.9
Bladensburg/Maryland	NEB	Left 2	167	241.3	188.2	170.8	167.8	167.4	188.5	193.7	257.3	236.6	286.1	175	0	40.1	68.7
		Through	167	241.3	188.2	170.8	167.8	167.4	188.5	193.7	257.3	236.6	286.1	175	0	40.1	68.7
		Right 2	167	241.3	188.2	170.8	167.8	167.4	188.5	193.7	257.3	236.6	286.1	175	0	40.1	68.7
	SEB	Left 2	80.5	81.7	83.1	83	63.5	79.9	82.2	78.5	63.3	80.8	198.2	80.7	16.2	19.5	26.7
		Through	80.5	81.7	83.1	83	63.5	79.9	82.2	78.5	63.3	80.8	198.2	80.7	16.2	19.5	26.7
		Right 2	80.5	81.7	83.1	83	63.5	79.9	82.2	78.5	63.3	80.8	198.2	80.7	16.2	19.5	26.7
	SWB	Left 2	41.3	41.2	44	41.2	56.1	58.9	41.3	39.8	40.9	42.1	144.5	41.7	0	7.8	17.5
		Through	41.3	41.2	44	41.2	56.1	58.9	41.3	39.8	40.9	42.1	144.5	41.7	0	7.8	17.5
		Right 2	41.3	41.2	44	41.2	56.1	58.9	41.3	39.8	40.9	42.1	144.5	41.7	0	7.8	17.5
	NWB	Left 2	102.7	109.2	83.2	102.9	83.5	79.3	83.1	86.1	98.6	102.7	252.7	97	18.1	27.6	33.9
		Through	102.7	109.2	83.2	102.9	83.5	79.3	83.1	86.1	98.6	102.7	252.7	97	18.1	27.6	33.9
		Right 2	102.7	109.2	83.2	102.9	83.5	79.3	83.1	86.1	98.6	102.7	252.7	97	18.1	27.6	33.9
16th	NB	Left 2	101.6	109.2	145.1	125.4	87.8	102	105.4	104.7	103.5	87.2	322.2	105	17.4	28.6	38.6
		Through	101.6	109.2	145.1	125.4	87.8	102	105.4	104.7	103.5	87.2	322.2	105	17.4	28.6	38.6
		Right 2	101.6	109.2	145.1	125.4	87.8	102	105.4	104.7	103.5	87.2	322.2	105	17.4	28.6	38.6
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	60.9	0	0	0.3	3
		Through	59.8	44.2	62.9	43.7	42	58.1	56.3	42.2	41.9	58.5	418.6	57.4	0	9.8	23.8
		Right 2	44.7	28.5	47.8	28.4	26.6	43	41.2	25.7	26	43.4	403.6	42.4	0	5.5	19.6
	SB	Left 2	188.3	123.9	100.2	238	108.9	231	247.3	168.7	147.6	163.7	276.1	170	20.5	45.8	56.1
		Through	188.3	123.9	100.2	238	108.9	231	247.3	168.7	147.6	163.7	276.1	170	20.5	45.8	56.1
		Right 2	188.3	123.9	100.2	238	108.9	231	247.3	168.7	147.6	163.7	276.1	170	20.5	45.8	56.1
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	81.4	0	0	0.6	4.6
		Through	124	104.7	93.2	110.1	106.5	107.8	105.8	92.6	125.6	100.7	272.8	106.6	0	25.2	40.7
		Right 2	124	104.7	93.2	110.1	106.5	107.8	105.8	92.6	125.6	100.7	272.8	106.6	0	25.2	40.7
17th	EB	Left 2	19.5	37.2	19.8	19.6	18.1	26.7	19.1	18.9	18.6	19.3	84.7	19.4	0	3.1	9.2
		Through	207.2	230	281.3	328.8	320.2	267.4	270.7	325.9	284.8	291.6	634.5	283.5	58.3	80.3	96.7
		Right 2	207.2	230	281.3	328.8	320.2	267.4	270.7	325.9	284.8	291.6	634.5	283.5	58.3	80.3	96.7
	SB	Left 2	567.6	385.3	399.9	566.4	558.5	566.1	566.8	344.1	549.2	423.4	596.7	555.1	103.1	158.6	165.5
		Through	564.3	385	405.3	566.8	552.8	561	567.2	322.3	509.5	441.8	597	549.6	86.1	154.9	164.3
		Right 2	552.3	373.1	393.4	554.9	540.9	549	555.2	310.4	497.5	429.9	585.1	537.8	74.2	144.9	162.6
	WB	Left 2	20.7	57.4	39	62.9	58.2	63.5	53.8	41.9	39	38.7	363.2	41.9	0	7.9	20.5
		Through	294.5	251.8	280.1	297.8	263.7	257.5	295	306.5	271.4	257.2	507	277	17.8	71.8	96.6
		Right 2	286.8	244.1	272.4	290.1	256	249.8	287.3	298.8	263.7	249.5	499.3	269.3	0	66.6	94.6
19th	NB	Left 2	106.8	124.3	125.9	121.9	125.5	108.7	104.2	119.2	105	121.3	238	110.2	20.4	38.6	38.9
		Through	106.8	124.3	125.9	121.9	125.5	108.7	104.2	119.2	105	121.3	238	110.2	20.4	38.6	38.9
		Right 2	106.8	124.3	125.9	121.9	125.5	108.7	104.2	119.2	105	121.3	238	110.2	20.4	38.6	38.9
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	90.1	0	0	0.2	2.5
		Through	106.5	97.1	96.5	97.5	101.4	100.8	105.5	100.2	102.9	103.7	296.7	101.4	0	24.2	38.9
	WB	Through	79	78.9	75.2	81	64.9	79.5	82	60.3	80.8	82.9	330.5	79.9	0	12.7	30
		Right 2	79	78.9	75.2	81	64.9	79.5	82	60.3	80.8	82.9	330.5	79.9	0	12.7	30
21st	NB	Left 2	105.3	104.7	122	149.7	110.3	125.9	152	140.6	189.4	177.3	384.1	143.5	19.4	41.3	49.5
		Through	105.3	104.7	122	149.7	110.3	125.9	152	140.6	189.4	177.3	384.1	143.5	19.4	41.3	49.5
		Right 2	105.3	104.7	122	149.7	110.3	125.9	152	140.6	189.4	177.3	384.1	143.5	19.4	41.3	49.5
	EB	Left 2	0	0	17.1	18.2	17.2	18.4	17.6	0	19.2	18.6	124	17.8	0	1.8	8.4
		Through	102.8	92.9	107.3	77.8	103.6	88.7	127.1	89.4	85.5	86.6	361.7	95.8	0	21.8	38.1
		Right 2	102.8	92.9	107.3	77.8	103.6	88.7	127.1	89.4	85.5	86.6	361.7	95.8	0	21.8	38.1
	SB	Left 2	124.2	123.9	126.6	128.1	105.7	122.6	150.4	104.1	105.8	125.3	315.1	124.7	19.3	38.1	43.8
		Through	124.2	123.9	126.6	128.1	105.7	122.6	150.4	104.1	105.8	125.3	315.1	124.7	19.3	38.1	43.8
		Right 2	124.2	123.9	126.6	128.1	105.7	122.6	150.4	104.1	105.8	125.3	315.1	124.7	19.3	38.1	43.8
	WB	Left 2	0	0	0	0	0	0	16.1	0	0	0	64.5	0	0	0.5	3.4
		Through	139.3	145	140.3	171.2	143.6	148.8	166	169.7	162.3	151.6	326.3	150	0	36.6	54.9
		Right 2	139.3	145	140.3	171.2	143.6	148.8	166	169.7	162.3	151.6	326.3	150	0	36.6	54.9
24th	NB	Left 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
		Right 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
	EB	Through	86.2	111.8	105.7	82.4	83.7	86.6	104.7	62.4	90	81.8	426.3	85.6	0	10.7	36.3
	WB	Through	56.2	57.1	64.4	60.9	58.8	58.5	61.2	50.4	58.4	50.7	333.1	58.4	0	9.3	28.5
26th	EB	Left 2	0	0	0	0	18.2	0	18.5	0	0	22.1	140.5	0	0	1.2	6.3
		Through	85.3	63.2	85.3	83.9	80.3	44.8	84	41.9	66.6	62.4	521.2	67.1	0	11.7	36.8
	SB	Left 2	146.7	146.8	147	144	144.7	126.3	151.2	145.6	124.8	148.3	258.4	146	38	46.2	49.6
		Right 2	134.1	134.2	134.4	131.4	132.2	113.7	138.6	133	112.2	135.7	245.8	133.4	25.3	36.8	46.5
	WB	Through	88.3	83.7	82.4	88.9	99.6	81.5	107.6	99.9	82.2	88.2	280	91	0	17.9	34.4
		Right 2	88.3	83.7	82.4	88.9	99.6	81.5	107.6	99.9	82.2	88.2	280	91	0	17.9	34.4
Oklahoma	NEB	Left 3	75.8	76.7	101.3	61.4	62.8	76.7	63	54.8	62.1	60.9	233.6	62.9	0	13.4	25
		Right 1	56	57	81.5	41.7	43	56.9	43.2	35.1	42.3	41.1	213.8	43.1	0	7	18.8
	EB	Through	108	100.9	129.2	108.4	111.7	113.3	114.9	104.2	103.9	92.5	256.1	107.5	0	20.5	42.5
		Right 3	108	100.9	129.2	108.4	111.7	113.3	114.9	104.2	103.9	92.5	256.1	107.5	0	20.5	42.5
	WB	Left 1	57.9	59.8	75	61.2	58.7	42.2	50.5	38.5	43.8	40.8	175.6	55.7	0	7.9	19.6
		Through	57.9	59.8	75	61.2	58.7	42.2	50.5	38.5	43.8	40.8	175.6	55.7	0	7.9	19.6

Travel Times for Scenario 2d: 2040 No-Build PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.7	296	517	280.2	513	292	490	298	481	284.7	499	306.3	530	287.5	532	270.5	521	298.3	556	288.4	557	290.2	59.1	174.2	630.6	15.3	25.5
EB H: Union to Kaiser	2	708.4	21.5	1295	21.5	1277	21.6	1252	21.7	1256	22	1271	21.8	1309	21.6	1295	21.7	1316	21.3	1324	21.8	1308	21.6	6.7	16.8	58.5	22.4	28.7
EB H: Kaiser to 3rd	3	593.2	25.2	1397	25	1370	25.4	1351	25.5	1355	25.7	1387	25.5	1408	25.5	1421	26	1415	25.6	1422	26.6	1404	25.6	10.3	14.1	130.2	15.8	28.7
EB H: 3rd to 4th	4	426.6	13.2	1178	12.9	1150	13.2	1120	13	1117	13.2	1149	13.2	1159	13	1194	13.8	1178	13.2	1189	13.1	1177	13.2	5.8	10.2	47.7	22	28.4
EB H: 4th to 5th	5	595	26.1	1198	25.2	1175	26.8	1170	26.7	1158	27.7	1176	27.3	1197	28	1259	27.3	1209	29.1	1217	27.4	1209	27.2	14.7	14.2	104	14.9	28.6
EB H: 6th to 7th	6	651.5	25.4	1174	24.8	1163	25.1	1149	25.6	1139	26.5	1164	24.7	1175	26.5	1225	25.8	1192	26	1198	26	1230	25.6	11.9	15.7	114.7	17.4	28.2
EB H: 7th to 8th	7	334	13.6	1171	13.2	1171	13.7	1169	12.8	1166	13.2	1190	14	1197	14	1227	13.6	1192	14.7	1215	13.6	1232	13.7	9.3	7.8	107.8	16.6	29.1
EB H: 8th to 9th	8	339.8	12.2	1105	12.5	1103	12	1132	12.2	1103	12.1	1131	12.3	1132	12.4	1161	12.4	1108	12.1	1125	12.8	1161	12.3	8	8	77.2	18.8	28.9
EB H: 9th to 10th	9	315.6	10.1	1124	10.6	1127	10.4	1160	10.2	1132	10.6	1134	10.3	1157	10.5	1167	10.1	1122	9.8	1157	10.9	1169	10.4	5.2	7.5	76.2	20.7	28.8
EB H: 10th to 11th	10	315.6	11.9	1141	11.6	1152	11	1175	12.4	1156	11.5	1163	11.2	1174	11.4	1202	11.8	1154	11.2	1163	11.4	1187	11.5	7.4	7.4	74.4	18.7	28.9
EB H: 11th to 12th	11	360.1	16.6	1190	13.6	1221	13.1	1247	16.3	1202	13.2	1240	13.6	1252	13.6	1245	13.6	1212	14.1	1219	13.3	1245	14.1	8.6	8.5	80.1	17.4	28.7
EB H: 12th to 13th	12	557.6	29.2	1356	20.3	1398	20.6	1392	33.1	1331	19.5	1389	26.6	1387	21.2	1411	19.1	1400	28.2	1401	22.7	1414	24	16.7	13.5	141.4	15.8	28.2
EB H: 13th to 14th	13	781.2	60.9	1304	52.8	1344	61.9	1340	59.7	1270	55.3	1326	71.8	1330	54.9	1346	41.8	1313	61.2	1357	56.8	1332	57.7	29.6	19.3	184.3	9.2	27.6
EB H: 14th to Starburst (incl ped sig)	14	512.1	25.9	1206	25.4	1245	26.3	1226	26.9	1166	26.8	1213	27.2	1258	26	1290	23.9	1223	25.3	1259	25.8	1247	25.9	16.9	12.5	135.2	13.5	27.9
WB H	15	6427.2	293.3	227	284.2	229	293.5	207	281.6	208	362	202	316.3	204	339.4	199	475.8	175	328.1	233	324	210	326.6	109	186.8	954.7	13.4	23.5
WB H: Starburst to 14th (incl. ped sig)	16	480.6	17.9	685	22.4	683	17.6	621	19.1	655	19.3	650	20.6	691	19.4	662	30.5	666	17.3	642	23.2	670	20.8	16.8	11.4	164.5	15.8	28.7
WB H: 14th to 13th	17	799.1	43.3	637	40.5	630	40.6	597	41.2	605	61.4	601	41.3	650	57.1	591	118	558	41.5	600	42.5	619	52	50.5	19	549.6	10.5	28.6
WB H: 13th to 12th	18	554.2	22.2	597	21.6	612	22.9	575	18.7	575	62.9	553	43.9	610	67.3	535	141.7	496	42.6	576	42	596	46.8	68.1	13.4	600.2	8.1	28.3
WB H: 12th to 11th	19	364	55.5	663	37.5	685	54.3	655	29.8	646	87.8	624	63.4	679	73.5	593	97.6	548	68.1	671	66.9	674	62.6	89.9	8.8	620.5	4	28.3
WB H: 11th to 10th	20	319.4	19.2	541	18.8	538	19.6	528	20.1	529	20.1	489	17.7	527	17	461	18.4	453	18.2	525	19	523	18.8	16.2	7.5	112.2	11.6	28.9
WB H: 10th to 9th	21	315.3	15.1	538	15.3	531	14.5	520	14	519	14.7	485	15.3	520	15.5	460	15.6	458	15.4	521	14.7	524	15	12.5	7.5	134.1	14.3	28.8
WB H: 9th to 8th	22	333.3	13.1	519	13	535	13.3	520	12.1	522	13.3	481	13.7	522	14.6	468	12.9	475	13.1	541	12.7	516	13.2	9.4	7.8	49.6	17.2	29
WB H: 8th to 7th	23	348.1	15.5	529	14	560	15.2	525	14.7	537	15.3	494	15.7	541	15.1	466	15.3	479	15.2	559	15.6	535	15.1	11.4	8.2	74.9	15.7	29
WB H: 7th to 6th	24	641	24.9	582	24.5	612	25.6	578	24.6	598	26.6	548	25.8	585	24.8	518	25.4	534	25.2	608	25.5	598	25.3	11.7	15.3	82.2	17.3	28.5
WB H: 6th to 4th	25	599.5	24.7	583	23.6	615	24.8	573	23.8	607	23.9	572	26.4	591	24.6	526	24.7	548	24.1	603	25.1	600	24.6	12.2	14.3	167.8	16.6	28.5
WB H: 4th to 3rd	26	413.5	20.5	605	21.6	642	22.2	567	22	623	21.1	561	20.3	592	21.2	536	23.1	546	22.2	606	21.4	592	21.5	13.1	9.8	103.5	13.1	28.7
WB H: 3rd to Kaiser	27	589.2	19.6	602	19.7	643	18.6	569	20	617	19.2	552	19.3	569	19.1	545	19.7	551	19.2	612	19.3	588	19.4	6.6	14	68.8	20.7	28.7

WB H: Kaiser to Union	28	647.4	20.2	651	20.5	685	20.2	630	20.5	641	20.1	607	19.9	616	20.3	578	20.1	605	20.3	649	19.6	656	20.2	4.6	15.3	39.1	21.9	28.8
EB Benning	29	4103	139.1	1314	135.7	1337	141.6	1351	138.1	1312	136.8	1362	137.8	1347	138.6	1391	135.6	1359	137.5	1345	138.5	1350	137.9	37.8	100.9	541.8	20.3	27.7
EB Benning: Starbust to 16th	30	621.7	22.3	1715	21.4	1743	21.8	1747	22.1	1651	21.3	1722	21.4	1729	21.7	1759	22	1735	21.5	1758	22	1763	21.8	11.2	15.1	119.8	19.4	28
WB Benning: 16th to 17th	31	636.9	27.5	1788	27.7	1788	31.6	1793	29.7	1749	29	1808	29.1	1808	28.8	1812	30.1	1766	29.4	1818	29.9	1837	29.3	20.7	15.3	209.6	14.8	28.4
EB Benning: 17th to 19th	32	827.2	26.4	1635	26.1	1646	25.9	1616	26.1	1603	26.3	1649	26.3	1669	26.4	1669	26	1627	26.4	1643	26.5	1653	26.2	11.7	19.8	114.9	21.5	28.4
EB Benning: 19th to 21st	33	671.8	21.6	2016	21.2	1998	21.5	1997	20.8	1970	21.7	2006	21.1	2044	22	2033	21.1	2007	20.9	2017	21.2	2021	21.3	8.2	15.9	86	21.5	28.8
EB Benning: 21st to 24th	34	583.1	19.2	1999	19.2	1970	19.5	1986	19	1965	18.9	1991	18.8	2004	19.4	2019	18.4	1980	18.8	1988	18.9	2000	19	8.3	14	80.2	20.9	28.4
EB Benning: 24th to 26th	35	513.5	17.1	2070	16.1	2064	16.7	2067	16.6	2022	16.6	2063	15.9	2063	16.5	2081	15.7	2039	16.4	2054	16.1	2059	16.4	5.4	12.3	78.8	21.3	28.4
EB Benning: 26th to OK	36	237.9	8.5	2085	8.3	2081	8.9	2086	8.5	2031	8.4	2079	8.6	2074	8.7	2098	8.2	2059	8.4	2070	8.1	2070	8.5	6.3	5.5	68.1	19.1	29.2
WB Benning	37	4173.3	205.4	620	202	609	203.2	615	205.4	649	203.3	598	203.8	614	205.6	599	204.6	674	203.3	621	204.9	618	204.2	36.6	124.2	497.4	13.9	22.9
WB Benning: OK to 26th	38	273.5	10.8	1305	10.8	1315	10.9	1308	10.9	1337	11.3	1318	10.6	1331	11.5	1343	11.1	1348	10.5	1371	10.9	1335	10.9	7.4	6.4	76.8	17.1	29.1
WB Benning: 26th to 24th	39	496.1	15.5	1145	15.6	1170	15.9	1163	15.7	1171	15.6	1151	15.5	1164	15.9	1195	15.2	1193	16.1	1198	15.6	1158	15.7	6.7	11.7	69	21.5	28.9
WB Benning: 24th to 21st	40	583	25.9	1163	25.7	1198	25.7	1184	27.8	1198	26.1	1176	26	1201	26.2	1228	27.3	1213	26.9	1231	26.9	1168	26.5	13	13.8	85	15	28.9
WB Benning: 21st to 19th	41	598.6	18.1	1167	17.9	1198	17.9	1184	18	1207	17.9	1174	18.2	1202	18.3	1225	17.7	1207	18.2	1226	18.2	1168	18	5.8	14.1	87.7	22.7	28.9
WB Benning: 19th to 17th	42	875.1	46.2	1199	41.7	1208	45.2	1168	43.7	1219	42.9	1184	42.2	1232	45.3	1284	45	1236	42.3	1216	43.4	1216	43.8	15.4	21.2	126.8	13.6	28.1
WB Benning: 17th to 16th	43	655.6	27.2	940	26.9	930	26.6	943	27.1	966	26.5	952	27.2	949	26.8	958	26.1	984	27.4	936	26.6	952	26.8	14.1	16	116.5	16.7	27.9
WB Benning: 16th to Starburst	44	678.1	55.1	868	55.4	842	53	856	54.7	881	54.8	857	53.9	893	55	865	55.6	904	55.6	853	55.9	863	54.9	19.3	16.6	111.4	8.4	27.8
EB Corridor	45	9924.4	414.3	413	407.3	410	420	388	423	396	407	419	431.7	427	415.2	433	394.9	431	429.2	451	414.3	448	415.7	93.7	290.9	974.3	16.3	23.3
WB Corridor	46	10604.9	513.5	130	505.7	115	511.1	118	508.5	119	597.2	114	549.9	108	571.8	106	713.9	102	538.8	130	551.4	120	553.2	151.4	376.9	1184.3	13.1	19.2

Travel Times for Scenario 2d: 2040 No-Build PM

Name	Travel Time Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min (s)	Max (s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6525.7	296	517	280.2	513	292	490	298	481	284.7	499	306.3	530	287.5	532	270.5	521	298.3	556	288.4	557	290.2	59.1	174.2	630.6	15.3	25.5
EB H: Union to Kaiser	2	708.4	21.5	1295	21.5	1277	21.6	1252	21.7	1256	22	1271	21.8	1309	21.6	1295	21.7	1316	21.3	1324	21.8	1308	21.6	6.7	16.8	58.5	22.4	28.7
EB H: Kaiser to 3rd	3	593.2	25.2	1397	25	1370	25.4	1351	25.5	1355	25.7	1387	25.5	1408	25.5	1421	26	1415	25.6	1422	26.6	1404	25.6	10.3	14.1	130.2	15.8	28.7
EB H: 3rd to 4th	4	426.6	13.2	1178	12.9	1150	13.2	1120	13	1117	13.2	1149	13.2	1159	13	1194	13.8	1178	13.2	1189	13.1	1177	13.2	5.8	10.2	47.7	22	28.4
EB H: 4th to 5th	5	595	26.1	1198	25.2	1175	26.8	1170	26.7	1158	27.7	1176	27.3	1197	28	1259	27.3	1209	29.1	1217	27.4	1209	27.2	14.7	14.2	104	14.9	28.6
EB H: 6th to 7th	6	651.5	25.4	1174	24.8	1163	25.1	1149	25.6	1139	26.5	1164	24.7	1175	26.5	1225	25.8	1192	26	1198	26	1230	25.6	11.9	15.7	114.7	17.4	28.2
EB H: 7th to 8th	7	334	13.6	1171	13.2	1171	13.7	1169	12.8	1166	13.2	1190	14	1197	14	1227	13.6	1192	14.7	1215	13.6	1232	13.7	9.3	7.8	107.8	16.6	29.1
EB H: 8th to 9th	8	339.8	12.2	1105	12.5	1103	12	1132	12.2	1103	12.1	1131	12.3	1132	12.4	1161	12.4	1108	12.1	1125	12.8	1161	12.3	8	8	77.2	18.8	28.9
EB H: 9th to 10th	9	315.6	10.1	1124	10.6	1127	10.4	1160	10.2	1132	10.6	1134	10.3	1157	10.5	1167	10.1	1122	9.8	1157	10.9	1169	10.4	5.2	7.5	76.2	20.7	28.8
EB H: 10th to 11th	10	315.6	11.9	1141	11.6	1152	11	1175	12.4	1156	11.5	1163	11.2	1174	11.4	1202	11.8	1154	11.2	1163	11.4	1187	11.5	7.4	7.4	74.4	18.7	28.9
EB H: 11th to 12th	11	360.1	16.6	1190	13.6	1221	13.1	1247	16.3	1202	13.2	1240	13.6	1252	13.6	1245	13.6	1212	14.1	1219	13.3	1245	14.1	8.6	8.5	80.1	17.4	28.7
EB H: 12th to 13th	12	557.6	29.2	1356	20.3	1398	20.6	1392	33.1	1331	19.5	1389	26.6	1387	21.2	1411	19.1	1400	28.2	1401	22.7	1414	24	16.7	13.5	141.4	15.8	28.2
EB H: 13th to 14th	13	781.2	60.9	1304	52.8	1344	61.9	1340	59.7	1270	55.3	1326	71.8	1330	54.9	1346	41.8	1313	61.2	1357	56.8	1332	57.7	29.6	19.3	184.3	9.2	27.6
EB H: 14th to Starburst (incl ped sig)	14	512.1	25.9	1206	25.4	1245	26.3	1226	26.9	1166	26.8	1213	27.2	1258	26	1290	23.9	1223	25.3	1259	25.8	1247	25.9	16.9	12.5	135.2	13.5	27.9
WB H	15	6427.2	293.3	227	284.2	229	293.5	207	281.6	208	362	202	316.3	204	339.4	199	475.8	175	328.1	233	324	210	326.6	109	186.8	954.7	13.4	23.5
WB H: Starburst to 14th (incl. ped sig)	16	480.6	17.9	685	22.4	683	17.6	621	19.1	655	19.3	650	20.6	691	19.4	662	30.5	666	17.3	642	23.2	670	20.8	16.8	11.4	164.5	15.8	28.7
WB H: 14th to 13th	17	799.1	43.3	637	40.5	630	40.6	597	41.2	605	61.4	601	41.3	650	57.1	591	118	558	41.5	600	42.5	619	52	50.5	19	549.6	10.5	28.6
WB H: 13th to 12th	18	554.2	22.2	597	21.6	612	22.9	575	18.7	575	62.9	553	43.9	610	67.3	535	141.7	496	42.6	576	42	596	46.8	68.1	13.4	600.2	8.1	28.3
WB H: 12th to 11th	19	364	55.5	663	37.5	685	54.3	655	29.8	646	87.8	624	63.4	679	73.5	593	97.6	548	68.1	671	66.9	674	62.6	89.9	8.8	620.5	4	28.3
WB H: 11th to 10th	20	319.4	19.2	541	18.8	538	19.6	528	20.1	529	20.1	489	17.7	527	17	461	18.4	453	18.2	525	19	523	18.8	16.2	7.5	112.2	11.6	28.9
WB H: 10th to 9th	21	315.3	15.1	538	15.3	531	14.5	520	14	519	14.7	485	15.3	520	15.5	460	15.6	458	15.4	521	14.7	524	15	12.5	7.5	134.1	14.3	28.8
WB H: 9th to 8th	22	333.3	13.1	519	13	535	13.3	520	12.1	522	13.3	481	13.7	522	14.6	468	12.9	475	13.1	541	12.7	516	13.2	9.4	7.8	49.6	17.2	29
WB H: 8th to 7th	23	348.1	15.5	529	14	560	15.2	525	14.7	537	15.3	494	15.7	541	15.1	466	15.3	479	15.2	559	15.6	535	15.1	11.4	8.2	74.9	15.7	29
WB H: 7th to 6th	24	641	24.9	582	24.5	612	25.6	578	24.6	598	26.6	548	25.8	585	24.8	518	25.4	534	25.2	608	25.5	598	25.3	11.7	15.3	82.2	17.3	28.5
WB H: 6th to 4th	25	599.5	24.7	583	23.6	615	24.8	573	23.8	607	23.9	572	26.4	591	24.6	526	24.7	548	24.1	603	25.1	600	24.6	12.2	14.3	167.8	16.6	28.5
WB H: 4th to 3rd	26	413.5	20.5	605	21.6	642	22.2	567	22	623	21.1	561	20.3	592	21.2	536	23.1	546	22.2	606	21.4	592	21.5	13.1	9.8	103.5	13.1	28.7
WB H: 3rd to Kaiser	27	589.2	19.6	602	19.7	643	18.6	569	20	617	19.2	552	19.3	569	19.1	545	19.7	551	19.2	612	19.3	588	19.4	6.6	14	68.8	20.7	28.7

WB H: Kaiser to Union	28	647.4	20.2	651	20.5	685	20.2	630	20.5	641	20.1	607	19.9	616	20.3	578	20.1	605	20.3	649	19.6	656	20.2	4.6	15.3	39.1	21.9	28.8
EB Benning	29	4103	139.1	1314	135.7	1337	141.6	1351	138.1	1312	136.8	1362	137.8	1347	138.6	1391	135.6	1359	137.5	1345	138.5	1350	137.9	37.8	100.9	541.8	20.3	27.7
EB Benning: Starbust to 16th	30	621.7	22.3	1715	21.4	1743	21.8	1747	22.1	1651	21.3	1722	21.4	1729	21.7	1759	22	1735	21.5	1758	22	1763	21.8	11.2	15.1	119.8	19.4	28
WB Benning: 16th to 17th	31	636.9	27.5	1788	27.7	1788	31.6	1793	29.7	1749	29	1808	29.1	1808	28.8	1812	30.1	1766	29.4	1818	29.9	1837	29.3	20.7	15.3	209.6	14.8	28.4
EB Benning: 17th to 19th	32	827.2	26.4	1635	26.1	1646	25.9	1616	26.1	1603	26.3	1649	26.3	1669	26.4	1669	26	1627	26.4	1643	26.5	1653	26.2	11.7	19.8	114.9	21.5	28.4
EB Benning: 19th to 21st	33	671.8	21.6	2016	21.2	1998	21.5	1997	20.8	1970	21.7	2006	21.1	2044	22	2033	21.1	2007	20.9	2017	21.2	2021	21.3	8.2	15.9	86	21.5	28.8
EB Benning: 21st to 24th	34	583.1	19.2	1999	19.2	1970	19.5	1986	19	1965	18.9	1991	18.8	2004	19.4	2019	18.4	1980	18.8	1988	18.9	2000	19	8.3	14	80.2	20.9	28.4
EB Benning: 24th to 26th	35	513.5	17.1	2070	16.1	2064	16.7	2067	16.6	2022	16.6	2063	15.9	2063	16.5	2081	15.7	2039	16.4	2054	16.1	2059	16.4	5.4	12.3	78.8	21.3	28.4
EB Benning: 26th to OK	36	237.9	8.5	2085	8.3	2081	8.9	2086	8.5	2031	8.4	2079	8.6	2074	8.7	2098	8.2	2059	8.4	2070	8.1	2070	8.5	6.3	5.5	68.1	19.1	29.2
WB Benning	37	4173.3	205.4	620	202	609	203.2	615	205.4	649	203.3	598	203.8	614	205.6	599	204.6	674	203.3	621	204.9	618	204.2	36.6	124.2	497.4	13.9	22.9
WB Benning: OK to 26th	38	273.5	10.8	1305	10.8	1315	10.9	1308	10.9	1337	11.3	1318	10.6	1331	11.5	1343	11.1	1348	10.5	1371	10.9	1335	10.9	7.4	6.4	76.8	17.1	29.1
WB Benning: 26th to 24th	39	496.1	15.5	1145	15.6	1170	15.9	1163	15.7	1171	15.6	1151	15.5	1164	15.9	1195	15.2	1193	16.1	1198	15.6	1158	15.7	6.7	11.7	69	21.5	28.9
WB Benning: 24th to 21st	40	583	25.9	1163	25.7	1198	25.7	1184	27.8	1198	26.1	1176	26	1201	26.2	1228	27.3	1213	26.9	1231	26.9	1168	26.5	13	13.8	85	15	28.9
WB Benning: 21st to 19th	41	598.6	18.1	1167	17.9	1198	17.9	1184	18	1207	17.9	1174	18.2	1202	18.3	1225	17.7	1207	18.2	1226	18.2	1168	18	5.8	14.1	87.7	22.7	28.9
WB Benning: 19th to 17th	42	875.1	46.2	1199	41.7	1208	45.2	1168	43.7	1219	42.9	1184	42.2	1232	45.3	1284	45	1236	42.3	1216	43.4	1216	43.8	15.4	21.2	126.8	13.6	28.1
WB Benning: 17th to 16th	43	655.6	27.2	940	26.9	930	26.6	943	27.1	966	26.5	952	27.2	949	26.8	958	26.1	984	27.4	936	26.6	952	26.8	14.1	16	116.5	16.7	27.9
WB Benning: 16th to Starburst	44	678.1	55.1	868	55.4	842	53	856	54.7	881	54.8	857	53.9	893	55	865	55.6	904	55.6	853	55.9	863	54.9	19.3	16.6	111.4	8.4	27.8
EB Corridor	45	9924.4	414.3	413	407.3	410	420	388	423	396	407	419	431.7	427	415.2	433	394.9	431	429.2	451	414.3	448	415.7	93.7	290.9	974.3	16.3	23.3
WB Corridor	46	10604.9	513.5	130	505.7	115	511.1	118	508.5	119	597.2	114	549.9	108	571.8	106	713.9	102	538.8	130	551.4	120	553.2	151.4	376.9	1184.3	13.1	19.2

Movement Group Delay for Scenario 2e: 2040 Build AM			
Intersection Name	**Intersection Number**	**All**	**LOS**
Union Garage	10	7	A
Kaiser Garage	20	2.1	A
3rd	30	22.4	C
4th	40	21.9	C
6th	60	30.6	C
7th	70	11.1	B
8th	80	23.3	C
9th	90	12.1	B
10th	100	16.2	B
11th	110	29.7	C
12th	120	26.5	C
13th	130	43.5	D
14th	140	61	E
Florida	150	27.8	C
Starburst	151	46.8	D
Bladensburg/Maryland	152	12.2	B
16th	160	29.7	C
17th	170	29.7	C
19th	190	47.5	D
21st	210	26.5	C
24th	240	18.3	B
26th	260	9.4	A
Oklahoma	270	14.6	B
East Terminus	271	13.6	B

Queue Lengths for Scenario 2e: 2040 Build AM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	38.5	36.4	39.5	40.2	40.1	39.4	45.1	41.9	40.6	37.8	102.9	39.8	0	8.7	15
		Right 2	38.5	36.4	39.5	40.2	40.1	39.4	45.1	41.9	40.6	37.8	102.9	39.8	0	8.7	15
	EB	Through	60.8	42.5	46.4	47.3	60.4	63.7	160.3	65.5	64	105.9	495.2	63.4	0	11.4	36.2
		Right 2	60.8	42.5	46.4	47.3	60.4	63.7	160.3	65.5	64	105.9	495.2	63.4	0	11.4	36.2
	WB	U-turn Marker	131.7	81.6	85.5	232.4	197.8	103.1	209.4	190.2	169	40.6	459.1	172.5	19.1	44.5	58.1
		Left 2	131.7	81.6	85.5	232.4	197.8	103.1	209.4	190.2	169	40.6	459.1	172.5	19.1	44.5	58.1
		Through	36.8	38.3	40.1	42	38.8	37	43.5	40.4	19.9	0	163.8	38.3	0	3.8	14.8
Kaiser Garage	NB	Right 2	0	0	0	0	0	0	0	0	95.1	0	99.6	0	0	1.2	9.7
	EB	Through	0	0	0	0	0	0	532.7	0	410.2	487.9	730.9	118.2	0	17.8	89.4
		Right 2	0	0	0	0	0	0	712.9	0	685.6	708.2	730.9	222.2	0	28.4	122.3
	WB	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3rd	NB	Left 2	166.3	123.8	157.6	337	108.6	212.2	192.9	164.4	412.5	478.7	521.6	238.2	38.9	63.1	85.8
		Through	166.3	123.8	157.6	337	108.6	212.2	192.9	164.4	412.5	478.7	521.6	238.2	38.9	63.1	85.8
		Right 2	166.3	123.8	157.6	337	108.6	212.2	192.9	164.4	412.5	478.7	521.6	238.2	38.9	63.1	85.8
	EB	Left 2	123.6	150.1	111.3	495.6	133	111.3	622.1	134.5	611.7	620.7	642.7	611.7	0	77.5	160.5
		Through	92.5	91	94	174	103.2	87.1	620.3	105.3	611.7	620.7	642.7	175.7	0	43.4	119.7
		Right 2	123.6	150.1	111.3	495.6	133	111.3	622.1	134.5	611.7	620.7	642.7	611.7	0	77.5	160.5
	SB	Left 2	64.5	107	120.6	128.1	105.7	107.2	416.4	80.9	392.6	387.2	424	277.7	0	40.9	88.6
		Through	64.5	107	120.6	128.1	105.7	107.2	416.4	80.9	392.6	387.2	424	277.7	0	40.9	88.6
		Right 2	55	97.6	111.2	118.6	96.2	97.8	406.9	71.4	383.1	377.7	414.5	268.3	0	35.6	86.6
	WB	Left 2	399	398.8	384.6	404.9	410.3	403.4	410.4	411.4	405.6	215.4	437.9	404.7	47.9	112	139.7
		Through	399	398.8	384.6	404.9	410.3	403.4	410.4	411.4	405.6	215.4	437.9	404.7	47.9	112	139.7
		Right 2	399	398.8	384.6	404.9	410.3	403.4	410.4	411.4	405.6	215.4	437.9	404.7	47.9	112	139.7
4th	EB	Through	62.8	460.9	63.7	463.9	407.5	64.5	445.4	83.2	440.5	448.6	495.6	444.3	0	62.1	136.2
		Right 2	62.8	460.9	63.7	463.9	407.5	64.5	445.4	83.2	440.5	448.6	495.6	444.3	0	62.1	136.2
	SB	Left 2	127.1	102.9	143.1	435.7	428.7	128.4	168.7	146.3	433.9	437.7	445.2	245.7	18.9	54.9	92.5
		Through	127.1	102.9	143.1	435.7	428.7	128.4	168.7	146.3	433.9	437.7	445.2	245.7	18.9	54.9	92.5
		Right 2	34.6	44.7	33.9	432.9	14.7	0	43.2	26.6	0	0	441.5	34.6	0	6	37.5
	WB	Left 2	379	474.8	288.4	502	574.4	352.8	484.2	580.4	460.3	117.8	637.8	465.4	16.7	104.6	154.4
		Through	379	474.8	288.4	502	574.4	352.8	484.2	580.4	460.3	117.8	637.8	465.4	16.7	104.6	154.4
6th	NB	Left 2	508	505.8	511.7	510	507.1	509.2	504.2	504.5	505.5	495.8	535.8	507.6	285.4	286.2	183.9
		Through	508	505.8	511.7	510	507.1	509.2	504.2	504.5	505.5	495.8	535.8	507.6	285.4	286.2	183.9
		Right 2	496.4	494.2	500	498.4	495.5	497.6	492.6	492.9	493.9	484.2	524.2	496	273.8	275.4	182.8
	EB	Left 2	314.9	638.6	132.1	620.2	639.2	172.2	616.6	470.2	639.9	609.3	644.7	627.7	86.8	176.4	210.5
		Through	314.9	638.6	132.1	620.2	639.2	172.2	616.6	470.2	639.9	609.3	644.7	627.7	86.8	176.4	210.5
	WB	Through	180.3	204	209.8	430.5	312.8	159.6	266.8	306.1	221.2	50.2	658.2	238.2	0	41.7	90.1
		Right 2	180.3	204	209.8	430.5	312.8	159.6	266.8	306.1	221.2	50.2	658.2	238.2	0	41.7	90.1
7th	EB	Left 2	429	663	63.6	657.8	634.6	82.9	71.9	175.6	661	659	663.5	659	0	111.1	223.6
		Through	429	663	63.6	657.8	634.6	82.9	71.9	175.6	661	659	663.5	659	0	111.1	223.6
		Right 2	429	663	63.6	657.8	634.6	82.9	71.9	175.6	661	659	663.5	659	0	111.1	223.6
	SB	Left 2	62.6	418.2	81.8	85.1	81.8	62.9	65.6	63.5	436	436.3	458.4	232.4	0	38.5	86.3
		Through	62.6	418.2	81.8	85.1	81.8	62.9	65.6	63.5	436	436.3	458.4	232.4	0	38.5	86.3
		Right 2	62.6	418.2	81.8	85.1	81.8	62.9	65.6	63.5	436	436.3	458.4	232.4	0	38.5	86.3
	WB	Left 2	47	63.1	65.5	84.6	63.2	57.9	69.9	75.8	314.9	18.5	383.3	102.4	0	15.7	46.5
		Through	47	63.1	65.5	84.6	63.2	57.9	69.9	75.8	314.9	18.5	383.3	102.4	0	15.7	46.5
		Right 2	47	63.1	65.5	84.6	63.2	57.9	69.9	75.8	314.9	18.5	383.3	102.4	0	15.7	46.5
8th	NB	Left 2	514.8	536.6	349.3	543.6	536.7	252.5	233.2	530.5	530.2	534.3	557	536.6	86.2	167.4	188.5
		Through	514.8	536.6	349.3	543.6	536.7	252.5	233.2	530.5	530.2	534.3	557	536.6	86.2	167.4	188.5
		Right 2	500.3	522.1	334.9	529.1	522.3	238.1	218.8	516.1	515.8	519.9	542.6	522.1	71.8	155.6	186.2
	EB	Left 2	342.2	345.6	127.4	341.2	341.1	199.4	125.6	339.2	341.7	344.8	373	344.8	39.5	96.6	129.4
		Through	342.2	345.6	127.4	341.2	341.1	199.4	125.6	339.2	341.7	344.8	373	344.8	39.5	96.6	129.4
		Right 2	342.2	345.6	127.4	341.2	341.1	199.4	125.6	339.2	341.7	344.8	373	344.8	39.5	96.6	129.4
	SB	Left 2	193.1	449.2	126.6	459.8	461.2	102.4	129.6	458.9	450.6	453.3	485	453.3	39.1	103.7	151.2
		Through	193.1	449.2	126.6	459.8	461.2	102.4	129.6	458.9	450.6	453.3	485	453.3	39.1	103.7	151.2
		Right 2	182	438.2	115.5	448.8	450.2	91.4	118.5	447.9	439.5	442.2	473.9	442.2	28	95.3	149.4
	WB	Left 2	167.5	163.9	125.6	183.9	160.1	130.2	187.3	182.1	207.4	39.7	356.7	167.5	0	33.4	59.8
		Through	167.5	163.9	125.6	183.9	160.1	130.2	187.3	182.1	207.4	39.7	356.7	167.5	0	33.4	59.8
		Right 2	167.5	163.9	125.6	183.9	160.1	130.2	187.3	182.1	207.4	39.7	356.7	167.5	0	33.4	59.8
9th	NB	Left 2	65.3	410.8	62.3	399.3	392.6	41	40.4	247.1	368.9	396.4	425.1	390.8	16.9	58.2	109.8
		Through	65.3	410.8	62.3	399.3	392.6	41	40.4	247.1	368.9	396.4	425.1	390.8	16.9	58.2	109.8
		Right 2	65.3	410.8	62.3	399.3	392.6	41	40.4	247.1	368.9	396.4	425.1	390.8	16.9	58.2	109.8
	EB	Left 2	349.4	352.3	40.5	354.1	354.2	322	40.8	355.1	342.1	341.8	405.1	353	0	86.5	142.4
		Through	349.4	352.3	40.5	354.1	354.2	322	40.8	355.1	342.1	341.8	405.1	353	0	86.5	142.4
		Right 2	349.4	352.3	40.5	354.1	354.2	322	40.8	355.1	342.1	341.8	405.1	353	0	86.5	142.4
	SB	Left 2	46.4	414.4	40.3	194.3	57.6	40.2	37.9	90.2	433.5	432.9	462.4	391.2	0	56	116
		Through	46.4	414.4	40.3	194.3	57.6	40.2	37.9	90.2	433.5	432.9	462.4	391.2	0	56	116
		Right 2	46.4	414.4	40.3	194.3	57.6	40.2	37.9	90.2	433.5	432.9	462.4	391.2	0	56	116
	WB	Left 2	39.4	38.3	40	39.2	20.3	38.5	40.3	40.6	38.5	20.3	293.8	39	0	5.5	16.5
		Through	39.4	38.3	40	39.2	20.3	38.5	40.3	40.6	38.5	20.3	293.8	39	0	5.5	16.5
		Right 2	39.4	38.3	40	39.2	20.3	38.5	40.3	40.6	38.5	20.3	293.8	39	0	5.5	16.5
10th	NB	Left 2	254.2	510.9	115.8	501.1	524.9	277	61.3	355.6	508.5	516	541.1	510.9	19	114.2	176.8
		Right 2	254.2	510.9	115.8	501.1	524.9	277	61.3	355.6	508.5	516	541.1	510.9	19	114.2	176.8
	EB	Through	355.4	324.5	100.6	325.7	336.4	320.8	58.4	323.2	341.6	345.2	383.3	345.2	0	99.6	142.1
		Right 2	355.4	324.5	100.6	325.7	336.4	320.8	58.4	323.2	341.6	345.2	383.3	345.2	0	99.6	142.1
	SB	Left 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Through	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
		Right 2	40.6	62	41.9	60.1	65.3	41.7	61.9	62.8	60.3	82.6	170.5	61.3	0	12.9	22.5
	WB	Left 2	37.1	19.9	38.1	18.6	20.6	35.7	39.9	38.3	22.2	18.8	154.1	36.6	0	4.3	12.4
		Through	37.1	19.9	38.1	18.6	20.6	35.7	39.9	38.3	22.2	18.8	154.1	36.6	0	4.3	12.4
11th	NB	Left 2	566.8	569.5	566.8	570.9	565.2	562.3	255	567.6	565.4	566.8	596.2	569.5	84.8	208.2	230.6
		Through	566.8	569.5	566.8	570.9	565.2	562.3	255	567.6	565.4	566.8	596.2	569.5	84.8	208.2	230.6
		Right 2	566.8	569.5	566.8	570.9	565.2	562.3	255	567.6	565.4	566.8	596.2	569.5	84.8	208.2	230.6
	EB	Left 2	318.5	320.6	317.2	355.5	354.5	335.4	73.7	322.5	324.7	337	387.5	341.2	40.2	119.8	144.6
		Through	318.5	320.6	317.2	355.5	354.5	335.4	73.7	322.5	324.7	337	387.5	341.2	40.2	119.8	144.6
		Right 2	318.5	320.6	317.2	355.5	354.5	335.4	73.7	322.5	324.7	337	387.5	341.2	40.2	119.8	144.6
	SB	Left 2	305	441	65.1	440.3	293.4	334.6	43.1	41.3	435.6	453.8	463.8	440.3	16.7	73	131.9
		Through	305	441	65.1	440.3	293.4	334.6	43.1	41.3	435.6	453.8	463.8	440.3	16.7	73	131.9
		Right 2	305	441	65.1	440.3	293.4	334.6	43.1	41.3	435.6	453.8	463.8	440.3	16.7	73	131.9
	WB	Left 2	213.4	250.3	204.4	316.9	254.9	197.8	261.8	244.9	262.5	85.2	404.3	240	0	47.9	83.6
		Through	213.4	250.3	204.4	316.9	254.9	197.8	261.8	244.9	262.5	85.2	404.3	240	0	47.9	83.6
		Right 2	213.4	250.3	204.4	316.9	254.9	197.8	261.8	244.9	262.5	85.2	404.3	240	0	47.9	83.6
12th	NB	Left 2	169.5	569.4	82	514.6	207.4	60.2	62.9	194.5	104.3	558.9	580.4	504.8	17.9	82.9	150.7
		Through	169.5	569.4	82	514.6	207.4	60.2	62.9	194.5	104.3	558.9	580.4	504.8	17.9	82.9	150.7
		Right 2	169.5	569.4	82	514.6	207.4	60.2	62.9	194.5	104.3	558.9	580.4	504.8	17.9	82.9	150.7
	EB	Left 2	373	389.2	368.1	374.3	390.4	391.4	59.7	368.6	391.1	372.5	430.9	390.4	0	138.8	172.5
		Through	373	389.2	368.1	374.3	390.4	391.4	59.7	368.6	391.1	372.5	430.9	390.4	0	138.8	172.5
		Right 2	373	389.2	368.1	374.3	390.4	391.4	59.7	368.6	391.1	372.5	430.9	390.4	0	138.8	172.5
	SB	Left 2	237.1	433.4	63.8	339.4	418.7	64	81.5	449.6	430	431.6	461.3	431.6	18.7	108.1	158.5
		Through	237.1	433.4	63.8	339.4	418.7	64	81.5	449.6	430	431.6	461.3	431.6	18.7	108.1	158.5
		Right 2	237.1	433.4	63.8	339.4	418.7	64	81.5	449.6	430	431.6	461.3	431.6	18.7	108.1	158.5
	WB	Left 2	85.4	587.8	64.4	248.7	141.4	40.5	153	279.2	148.8	18.9	590.3	583.9	0	49.7	138.3
		Through	85.4	587.8	64.4	248.7	141.4	40.5	153	279.2	148.8	18.9	590.3	583.9	0	49.7	138.3
		Right 2	85.4	587.8	64.4	248.7	141.4	40.5	153	279.2	148.8	18.9	590.3	583.9	0	49.7	138.3

13th	NB	Left 2	530.5	556.3	234.7	550.8	559.3	89.6	211.2	549.1	563.4	562.5	570.6	562.5	38.3	163.2	220.2
		Through	530.5	556.3	234.7	550.8	559.3	89.6	211.2	549.1	563.4	562.5	570.6	562.5	38.3	163.2	220.2
		Right 2	530.5	556.3	234.7	550.8	559.3	89.6	211.2	549.1	563.4	562.5	570.6	562.5	38.3	163.2	220.2
	EB	Left 2	567.9	566.1	566.3	566.3	565.7	575.3	441.5	566.2	597.1	565.6	624	566.3	252.4	283	255.3
		Through	567.9	566.1	566.3	566.3	565.7	575.3	441.5	566.2	597.1	565.6	624	566.3	252.4	283	255.3
		Right 2	567.9	566.1	566.3	566.3	565.7	575.3	441.5	566.2	597.1	565.6	624	566.3	252.4	283	255.3
	SB	Left 2	39.2	287.5	133.5	259.9	141.5	39	87.4	325.9	521.5	739.6	763.5	458.5	0	94.5	164.2
		Through	39.2	287.5	133.5	259.9	141.5	39	87.4	325.9	521.5	739.6	763.5	458.5	0	94.5	164.2
		Right 2	39.2	287.5	133.5	259.9	141.5	39	87.4	325.9	521.5	739.6	763.5	458.5	0	94.5	164.2
	WB	Left 2	683.1	806.7	203.7	369.4	252.3	122.9	209	792	623.6	39.8	847.7	684.3	0	94.4	194.6
		Through	683.1	806.7	203.7	369.4	252.3	122.9	209	792	623.6	39.8	847.7	684.3	0	94.4	194.6
		Right 2	683.1	806.7	203.7	369.4	252.3	122.9	209	792	623.6	39.8	847.7	684.3	0	94.4	194.6
14th	EB	Through	820.7	813.6	795.4	807.1	826.2	811.8	793	795.2	817.5	791.3	853.1	817.5	766.6	576.7	274.9
		Right 2	820.7	813.6	795.4	807.1	826.2	811.8	793	795.2	817.5	791.3	853.1	817.5	766.6	576.7	274.9
	SB	Left 2	716.6	1240.5	170.5	1236.2	931	327.4	1144.2	1222.5	733.5	1224.5	1249.1	1224.5	290.4	462.9	430.8
		Through	716.6	1240.5	170.5	1236.2	931	327.4	1144.2	1222.5	733.5	1224.5	1249.1	1224.5	290.4	462.9	430.8
		Right 2	712.5	1236.5	166.5	1232.2	927	323.4	1140.2	1218.5	729.5	1220.5	1245.1	1220.5	286.4	458.7	431
	WB	Left 2	257	279.6	254.4	263.4	259.7	273.8	259.2	275.1	261	274.7	298.6	275.1	38.3	94.6	111
		Through	257	279.6	254.4	263.4	259.7	273.8	259.2	275.1	261	274.7	298.6	275.1	38.3	94.6	111
Florida	EB	Through	336.2	337.3	335.3	336.1	339.8	337	339.4	336.5	336.3	319.6	379.4	337.8	318.4	287.1	86.7
	WB	Through	472.6	471.8	175.7	423.1	418.5	472.4	420.5	421.1	420.8	417.1	474.6	472.4	84.8	173.5	187.5
		Right 1	480.5	479.7	183.6	431	426.4	480.3	428.4	429	428.7	425	482.5	480.3	69.2	169.5	195.1
Starburst	NB	Right 1	207.5	172.6	192.1	196.4	192.6	255.6	352.3	428.3	339.6	322.4	555.5	323.2	110.6	131.2	96.1
		Right 2	207.5	172.6	192.1	196.4	192.6	255.6	352.3	428.3	339.6	322.4	555.5	323.2	110.6	131.2	96.1
	NEB	Through	235.3	858.3	158	195.4	166.3	182.6	167.7	168.8	165.8	1321.2	1445.6	858.3	78.6	144.2	247.6
		Right 1	235.3	858.3	158	195.4	166.3	182.6	167.7	168.8	165.8	1321.2	1445.6	858.3	78.6	144.2	247.6
	EB	Left 1	285.2	268.4	284.9	267.8	285.2	284.4	267.8	284.8	285.2	267.4	320.3	284.1	265.5	227.6	77.7
		Through	235.4	218.7	217.5	217.7	217.5	218	217.5	235	217.2	217.7	270.4	217.8	187.6	128.2	101.1
		Right 3	235.4	218.7	217.5	217.7	217.5	218	217.5	235	217.2	217.7	270.4	217.8	187.6	128.2	101.1
	SWB	Through	223	250	218.8	224.2	223.7	224.9	223.3	188.4	214.2	250.1	281.3	250.1	71.7	86.4	84
		Right 1	223	250	218.8	224.2	223.7	224.9	223.3	188.4	214.2	250.1	281.3	250.1	71.7	86.4	84
	WB	Through	534	528.5	516.3	516.6	513.9	512.1	517	509.4	534.5	514.9	564.4	532.7	375.1	329.5	191.9
		Right 3	534	528.5	516.3	516.6	513.9	512.1	517	509.4	534.5	514.9	564.4	532.7	375.1	329.5	191.9
Bladensburg/Maryland	NEB	Left 2	262.6	120	261.5	101.9	103.3	260.9	259.6	118.8	126	63.8	285.1	259.7	0	64.8	95.9
		Through	262.6	120	261.5	101.9	103.3	260.9	259.6	118.8	126	63.8	285.1	259.7	0	64.8	95.9
		Right 2	262.6	120	261.5	101.9	103.3	260.9	259.6	118.8	126	63.8	285.1	259.7	0	64.8	95.9
	SEB	Left 2	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	63.5	550.7	564	283.6	0	41.1	114.2
		Through	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	63.5	550.7	564	283.6	0	41.1	114.2
		Right 2	42.7	62.5	61.5	42.8	43.6	42	57.9	61.6	63.5	550.7	564	283.6	0	41.1	114.2
	SWB	Left 2	45	134.3	54.4	44	56.7	59.5	42.1	54.8	60.1	978.4	986.4	516.8	0	53	174.5
		Through	45	134.3	54.4	44	56.7	59.5	42.1	54.8	60.1	978.4	986.4	516.8	0	53	174.5
		Right 2	45	134.3	54.4	44	56.7	59.5	42.1	54.8	60.1	978.4	986.4	516.8	0	53	174.5
	NWB	Left 2	64.4	62.6	58.7	59.7	82.8	62.3	62.4	59.9	62.8	549.4	552.1	83.3	17.2	30.5	74.7
		Through	64.4	62.6	58.7	59.7	82.8	62.3	62.4	59.9	62.8	549.4	552.1	83.3	17.2	30.5	74.7
		Right 2	64.4	62.6	58.7	59.7	82.8	62.3	62.4	59.9	62.8	549.4	552.1	83.3	17.2	30.5	74.7
16th	NB	Left 2	410.8	413.8	411.2	120.7	108.2	413.4	130	128.8	147.6	415.9	429.7	415.9	39.9	102.9	145.8
		Through	410.8	413.8	411.2	120.7	108.2	413.4	130	128.8	147.6	415.9	429.7	415.9	39.9	102.9	145.8
		Right 2	410.8	413.8	411.2	120.7	108.2	413.4	130	128.8	147.6	415.9	429.7	415.9	39.9	102.9	145.8
	EB	Left 2	69.2	0	111.1	0	0	0	0	0	0	28.2	137.4	28.2	0	4.1	16.5
		Through	81.3	37.5	77.1	42.2	37.2	84.7	42.5	41.8	37.6	19.1	176.1	57.6	0	6.9	20.2
		Right 2	66.4	0	62.1	24.3	22.2	69.7	26.1	0	21.8	0	161.1	30.9	0	4.1	15.9
	SB	Left 2	106.1	37.8	28.9	20.1	18.5	19	18.3	18.3	17.6	17.8	130.7	28.9	0	5.2	14.7
		Through	106.1	37.8	28.9	20.1	18.5	19	18.3	18.3	17.6	17.8	130.7	28.9	0	5.2	14.7
		Right 2	106.1	37.8	28.9	20.1	18.5	19	18.3	18.3	17.6	17.8	130.7	28.9	0	5.2	14.7
	WB	Left 2	17.4	0	0	0	0	0	0	0	0	0	42.9	0	0	0.4	3.1
		Through	665.6	659.2	665	655.9	526.4	654.4	645	644.9	526.1	655.6	718.1	665	364.7	359.5	240.8
		Right 2	665.6	659.2	665	655.9	526.4	654.4	645	644.9	526.1	655.6	718.1	665	364.7	359.5	240.8
17th	EB	Left 2	571.5	18	41.7	39.4	31.4	40.1	39.1	19	39.2	34.3	705	47.3	0	14.6	70.8
		Through	568.7	101.5	146.6	86.9	106.9	126.3	123.3	125.6	94	65.5	702.7	126.8	0	31.5	74.9
		Right 2	568.7	101.5	146.6	86.9	106.9	126.3	123.3	125.6	94	65.5	702.7	126.8	0	31.5	74.9
	SB	Left 2	564.5	280.6	560.9	244.9	220.3	569.5	172.4	232.1	232.8	571.4	597.1	560.9	54.9	115.3	165
		Through	564.9	302.1	561.3	258.4	212	569.8	185	219	238	571.8	597.5	561.3	63.7	129.7	167.3
		Right 2	552.9	290.1	549.3	246.5	200.1	557.9	173	207.4	226.1	559.9	585.6	549.3	51.8	119.9	165.7
	WB	Left 2	16.7	17.2	0	18.2	19	0	16	19	19.6	0	87.6	17.9	0	1.8	7.2
		Through	883.1	881.6	884.5	880.6	881.4	905.1	880.3	879.2	881.7	908	944.3	908	803.4	791.6	132.1
		Right 2	875.9	874.4	877.3	873.4	874.2	897.9	873.1	872	874.5	900.8	937.1	900.8	796.2	784.4	131.8
19th	NB	Left 2	530	527.4	525.5	528.9	527.4	527.6	527.2	527.6	531.1	523.4	552.5	527.4	511.1	448	120.3
		Through	530	527.4	525.5	528.9	527.4	527.6	527.2	527.6	531.1	523.4	552.5	527.4	511.1	448	120.3
		Right 2	530	527.4	525.5	528.9	527.4	527.6	527.2	527.6	531.1	523.4	552.5	527.4	511.1	448	120.3
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.4	0	0	0.2	2.1
		Through	78.1	63.5	80.2	60.2	72	78.3	63.7	57.7	62.5	55.6	164.3	63.8	0	14.4	24.9
	WB	Through	621.9	629.5	637.9	623.6	623.2	620	621.1	621.7	622.1	621.8	648.5	629.5	402.2	381.3	227.4
		Right 2	621.9	629.5	637.9	623.6	623.2	620	621.1	621.7	622.1	621.8	648.5	629.5	402.2	381.3	227.4
21st	NB	Left 2	411.7	234.5	521.7	62.1	61.7	494.4	63	60.2	62.9	783.2	800.7	471	17.9	76.2	158.4
		Through	411.7	234.5	521.7	62.1	61.7	494.4	63	60.2	62.9	783.2	800.7	471	17.9	76.2	158.4
		Right 2	411.7	234.5	521.7	62.1	61.7	494.4	63	60.2	62.9	783.2	800.7	471	17.9	76.2	158.4
	EB	Left 2	0	0	0	0	0	0	0	0	0	76.6	77.4	17.8	0	2.9	13.5
		Through	103.8	44.9	104	58.4	62.9	83.8	82.5	67.7	63.9	41.7	211.3	80.3	0	11.7	27.2
		Right 2	103.8	44.9	104	58.4	62.9	83.8	82.5	67.7	63.9	41.7	211.3	80.3	0	11.7	27.2
	SB	Left 2	299.8	144.3	167.7	59.6	59.8	212.5	60.4	60.9	59.5	627.2	641.3	321.1	0	52.4	127.2
		Through	299.8	144.3	167.7	59.6	59.8	212.5	60.4	60.9	59.5	627.2	641.3	321.1	0	52.4	127.2
		Right 2	299.8	144.3	167.7	59.6	59.8	212.5	60.4	60.9	59.5	627.2	641.3	321.1	0	52.4	127.2
	WB	Left 2	0	0	0	0	0	0	0	0	0	0	21.4	0	0	0	0.9
		Through	591	594.2	591.3	594.7	599.9	591.2	592.5	595	593.6	593.6	646.3	593.6	416.8	332.3	257.4
		Right 2	591	594.2	591.3	594.7	599.9	591.2	592.5	595	593.6	593.6	646.3	593.6	416.8	332.3	257.4
24th	NB	Left 2	41.6	41.8	82	37.4	38.9	179.1	56.9	21.6	38.6	370.8	394.9	123	0	23.4	60
		Right 2	41.6	41.8	82	37.4	38.9	179.1	56.9	21.6	38.6	370.8	394.9	123	0	23.4	60
	EB	Through	41.4	41.7	18.6	16.6	18	98.7	18.9	19.9	18.5	81.7	240.1	41.2	0	5	20
	WB	Through	515.6	507.8	506.6	513.8	506.1	507	506.2	508.5	504.2	523.8	569.7	523.8	169.3	229.6	222.6
26th	EB	Left 2	20.2	44.9	39.5	0	28	345.3	27.3	28.1	27.3	160.4	431	92.9	0	13.8	45.4
		Through	65.3	57	66.3	42.4	49.5	38.9	33.4	38.9	45.7	0	195.8	42.4	0	5.3	18.5
	SB	Left 2	697.5	220.4	704	86.8	74.8	704.6	61.1	78.9	78.9	695.2	720.5	695.2	16.9	91.7	190.6
		Right 2	684.9	207.8	691.4	74.2	62.3	692	48.5	66.3	66.3	682.7	707.9	682.7	0	84	188.2
	WB	Through	283	283.4	281.1	286.2	285.6	273.6	282.8	285.2	282.8	284.2	338.1	284.2	87	128.3	124.7
		Right 2	283	283.4	281.1	286.2	285.6	273.6	282.8	285.2	282.8	284.2	338.1	284.2	87	128.3	124.7
Oklahoma	NEB	Left 3	228.4	57.3	389.3	60	40.7	268.3	59.2	40.1	43.6	646.2	671.3	250.8	0	38.3	104
		Right 1	208.7	37.5	369.5	40.2	20.9	248.5	39.4	20.4	23.8	626.4	651.5	231	0	31.3	99.6
	EB	Through	71.2	70.7	78	70.5	70.7	78.9	78.8	79.1	70.1	18.5	178.1	71.2	0	7.9	22.3
		Right 3	71.2	70.7	78	70.5	70.7	78.9	78.8	79.1	70.1	18.5	178.1	71.2	0	7.9	22.3
	WB	Left 1	792.1	793.2	792.3	756.7	747.6	793.6	753.3	747.8	746.6	749.3	801.9	792.3	35.4	289.7	347.5
		Through	792.1	793.2	792.3	756.7	747.6	793.6	753.3	747.8	746.6	749.3	801.9	792.3	35.4	289.7	347.5
East Terminus	EB	Through	73.1	0	72.3	0	0	72.9	0	0	0	0	151.7	0	0	2	12.7
	WB	Through	1651.1	1417.8	1655.3	1647.5	218.4	1652.6	969	437.4	518.7	1663.2	1676.6	1652.6	0	193.7	482.9

Travel Times for General Traffic for Scenario 2e: 2040 Build AM

Name	TravelTime Section	Distance(ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average (s)	Standard Deviation (s)	Min(s)	Max(s)		
EB H	1	6524.8	704.8	171	323.6	76	587.7	178	588.6	55	557.8	74	626.8	183	329.3	136	339.8	129	821.4	86	290.7	44	539	405.8	200.2	2671.6	8.3	22.2
EB H: Union to Kaiser	2	708.4	20.8	641	21	624	21	620	21.1	595	20.9	634	20.9	676	58.9	605	21	683	23.8	583	20.4	548	24.9	41	16.8	613.7	19.4	28.7
EB H: Kaiser to 3rd	3	592.9	24.2	683	22.5	631	23.9	649	24.5	567	23.4	626	23.6	707	90.6	582	25.6	708	35.3	561	22.4	507	31.1	62.8	14.2	848.5	13	28.5
EB H: 3rd to 4th	4	426.4	15.2	569	14.5	498	15.5	536	16.9	463	15	508	15.4	613	72.3	484	16.5	596	44	451	14.7	417	23.3	63.3	10.1	939.2	12.5	28.8
EB H: 4th to 5th	5	595	41.6	595	30.7	483	29.3	563	41.4	441	39.2	488	32.4	639	128.7	508	71.8	611	131.8	435	28.5	393	56.6	103.2	14.5	1070.8	7.2	28
EB H: 6th to 7th	6	651.5	43.7	518	24.8	361	25	468	43.8	326	27.9	363	25.9	526	24.8	395	25	464	111.1	313	24.5	270	36	94.3	15.6	1275.4	12.3	28.4
EB H: 7th to 8th	7	334	42.4	500	20.4	317	21.4	446	54.6	295	32.7	337	28.6	520	23.4	386	21.2	426	107.5	297	19.7	240	35.6	104.4	7.8	1476.5	6.4	29.1
EB H: 8th to 9th	8	339.8	37.4	491	13.4	286	14	441	60.6	272	21.5	302	25.4	504	13.5	370	14.4	394	124.2	264	13.7	209	31.3	118.8	8	1449.5	7.4	28.9
EB H: 9th to 10th	9	315.6	43.9	491	11.3	271	17.3	454	72.7	255	47.3	275	29.5	498	11.3	380	11.7	378	151	260	10.4	208	37.1	141.6	7.5	1359.8	5.8	28.8
EB H: 10th to 11th	10	315.6	52.7	497	18.1	253	29.7	458	99.6	243	95.4	275	43.2	500	15.1	384	22.6	366	158.7	251	15.2	191	50.7	167.6	7.4	1464.7	4.2	29
EB H: 11th to 12th	11	360.1	61	495	16.9	224	41	475	152.9	222	93.2	262	57.3	507	15.2	384	23	341	196.9	225	14.3	163	61	195.1	8.5	1649.6	4	28.8
EB H: 12th to 13th	12	557.6	128	510	30.8	186	132.1	496	311.3	191	235.9	230	131.5	533	24.3	364	36.8	315	420.7	197	22.9	129	135.4	309	13.2	1967	2.8	28.7
EB H: 13th to 14th	13	781.2	255.7	510	117	158	253.9	536	509.3	145	413.5	185	215.8	528	91.9	318	88.9	266	565.3	179	64.8	90	243.3	439.3	19.1	3447.9	2.2	27.9
EB H: 14th to Starburst (incl ped sig)	14	511.7	29	384	25.5	147	30.6	409	30.9	121	26.4	157	29.1	411	28	275	29.4	236	27.1	163	26.6	87	28.7	19.7	12.6	296.2	12.2	27.8
WB H	15	6427.1	306.1	573	321	533	283.9	500	333.1	665	305.9	748	293.5	528	315.1	703	353.6	748	311.1	734	286.7	142	314.8	66.9	193	1024.2	13.9	22.7
WB H: Starburst to 14th (incl. ped sig)	16	480.6	41.9	874	48.5	966	31.4	831	51.6	1366	41.2	1334	40.5	794	44.6	1326	51.3	1345	37.8	1364	43.8	187	43.8	41	11.6	508.3	7.5	28.3
WB H: 14th to 13th	17	799.1	43.4	835	34.6	841	33.4	783	36	1234	32.8	1227	29.7	753	31.3	1239	57.7	1247	44.2	1244	26.9	181	38.5	38.3	19.3	812.6	14.2	28.2
WB H: 13th to 12th	18	554.2	19.3	876	26.2	823	18.2	830	23.2	1254	19.6	1247	17.7	800	19.3	1235	21.9	1279	19.9	1263	18.1	192	20.6	12.3	13.3	214.5	18.3	28.4
WB H: 12th to 11th	19	364	21.8	926	22.4	840	20.7	886	23.6	1276	21.6	1252	20.9	849	22.2	1277	19.9	1296	20.2	1278	23.3	213	21.5	16.4	8.7	81.7	11.5	28.4
WB H: 11th to 10th	20	319.4	11.6	901	11.7	801	11.7	841	11.1	1191	11.6	1187	12.1	831	11.8	1220	11.3	1207	11.5	1208	11.8	212	11.6	7.8	7.5	64	18.8	28.9
WB H: 10th to 9th	21	315.3	10.3	917	10.1	803	10.4	867	9.6	1173	9.9	1206	9.7	847	10.3	1234	10.2	1234	10.6	1210	10.6	231	10.1	4.9	7.4	63.1	21.3	28.9
WB H: 9th to 8th	22	333.3	15	958	15.7	839	14.4	918	16.1	1181	15.2	1204	13.7	901	15.5	1241	15.3	1257	19.5	1200	14.4	271	15.7	13	7.9	93.6	14.5	28.8
WB H: 8th to 7th	23	348.1	12.8	981	13.6	854	13.5	954	13.8	1201	13.6	1214	13.3	939	13.4	1251	12.8	1258	21.3	1211	12.6	302	14.3	20.7	8.3	1025.5	16.6	28.6
WB H: 7th to 6th	24	641	24.5	1002	27.1	874	24.9	976	30.9	1195	30.4	1221	24.2	961	27	1252	28.4	1263	26	1211	23.7	310	27.1	14.6	15.6	129.3	16.1	28
WB H: 6th to 4th	25	599.5	35.8	1013	42.2	898	32.5	991	42.8	1176	44.3	1212	36.1	996	46.9	1236	50	1265	39.1	1197	29.1	337	41.1	22.1	14.3	162.2	9.9	28.5
WB H: 4th to 3rd	26	413.5	30.4	1123	34.2	971	30.7	1082	35.6	1229	33.2	1264	30.6	1094	36.3	1311	37.5	1332	33.7	1242	26.2	411	33.4	24	9.8	214.2	8.4	28.9
WB H: 3rd to Kaiser	27	589.2	16.1	1097	16.1	958	16.2	1036	16.2	1181	16.2	1213	16.1	1067	16.2	1252	16.2	1298	16.1	1159	15.9	406	16.1	0.9	13.9	34.8	25	28.8

WB H: Kaiser to Union	28	647.4	18.3	1140	18.5	1022	18.5	1113	19.1	1183	18.6	1249	18.3	1121	19	1261	19.1	1332	18.2	1177	17.4	504	18.6	3.5	15	48.4	23.7	29.4
EB Benning	29	4103	165	380	152.5	212	161.6	383	151.7	208	153.9	246	161.6	368	156.3	313	154.7	270	155.8	237	154.2	106	157.8	37.6	105.4	453.9	17.7	26.5
EB Benning: Starbust to 16th	30	621.7	23.3	615	20.9	295	23.6	618	21.7	309	21	370	24.4	603	21.8	491	21.7	418	20.7	371	23.9	151	22.5	13.4	14.8	111.4	18.8	28.7
WB Benning: 16th to 17th	31	636.9	34.4	668	29	399	32.7	664	28.5	402	29.7	469	31.2	641	30.6	561	31.1	482	30.7	452	25.6	253	30.9	15.4	15.2	119.9	14.1	28.6
EB Benning: 17th to 19th	32	827.2	30	562	29	356	29.5	554	29	361	29.8	405	29.5	543	28.6	476	28.9	414	29.8	387	26.8	217	29.2	14.1	19.8	113.9	19.3	28.6
EB Benning: 19th to 21st	33	671.8	27.5	865	23.5	637	26.7	838	23.4	672	24.1	717	27.1	795	25	781	24	727	24.3	691	23.9	464	25.1	11.1	16.1	115.2	18.2	28.5
EB Benning: 21st to 24th	34	583.1	19.4	864	18.8	674	18.7	848	18.2	695	18.2	756	20.7	791	18.5	793	18.5	770	18.2	739	24.3	458	19.2	7.9	13.9	64.4	20.7	28.6
EB Benning: 24th to 26th	35	513.5	17.2	822	16.9	663	17.2	823	16.8	690	16.6	735	17.4	765	15.7	769	16.5	753	16.8	736	18.4	450	16.9	6.5	12.1	59.3	20.7	28.8
EB Benning: 26th to OK	36	237.9	8.4	838	8.7	684	8.3	841	8.6	701	8.2	755	7.9	771	7.9	785	8.7	769	8.1	753	7.3	459	8.3	5.3	5.5	47.7	19.5	29.3
WB Benning	37	4172.8	334.5	734	391.9	914	342.9	709	477.1	1233	365.7	1250	306	706	382.2	1199	393.2	1161	347.5	1229	299.8	200	376	118.3	152.9	1108.3	7.6	18.6
WB Benning: OK to 26th	38	273.5	17.8	1569	21.7	1949	17.4	1506	27.2	2150	21.9	2368	14.8	1559	20.7	2260	23	2228	18.8	2376	11.4	722	20.4	18.7	6.4	170	9.1	29
WB Benning: 26th to 24th	39	496.1	30.3	1367	37.3	1715	28.7	1320	51.9	1921	38.1	2109	22.8	1374	35.8	2009	41	1972	34	2118	15.5	588	35.7	30.4	11.9	224.2	9.5	28.3
WB Benning: 24th to 21st	40	583	47.2	1324	63.4	1656	48.5	1276	77.2	1919	63.7	2116	36.5	1329	59.5	1990	63.3	1950	58.1	2100	29.7	532	58.1	42.3	14.1	258.6	6.8	28.1
WB Benning: 21st to 19th	41	598.6	62	1327	65.3	1631	68	1259	78.1	1921	60	2072	53.3	1290	66.1	1970	65	1928	62.8	2077	54.9	527	64.5	34	14.6	244.2	6.3	28
WB Benning: 19th to 17th	42	875.1	90	1203	86.4	1478	95.8	1153	101.3	1829	81.4	1935	83.7	1164	90.2	1880	88.5	1790	83.7	1936	77.7	434	88.5	35.5	22.5	288.2	6.7	26.5
WB Benning: 17th to 16th	43	655.6	68.9	1021	72.1	1300	70.4	974	79.6	1650	50	1742	68.4	967	60.2	1649	72.3	1665	44.5	1701	48.8	318	63.8	43.4	16.5	293.2	7	27.1
WB Benning: 16th to Starburst	44	677.6	67.2	995	72.9	1244	62.6	953	75.4	1629	61.3	1674	65.1	955	67.8	1619	75.2	1615	59.9	1630	67.8	270	67.7	40.9	16.8	901.4	6.8	27.5
EB Corridor	45	9923.5	869.3	103	482.5	55	770.4	107	638.2	38	730.2	45	800.4	110	489.9	91	489.8	78	933.1	63	455	35	691.2	420.7	296	2740.3	9.8	22.9
WB Corridor	46	10604.3	653.1	372	684.6	353	626.9	328	806.1	462	663.4	481	598	352	676.4	459	724.4	482	642.6	481	603.6	106	677.2	147.6	402.7	1584	10.7	18

Travel Times for Streetcar for Scenario 2e: 2040 Build AM

Name	TravelTime Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average (s)	Standard Deviation (s)	Min(s)	Max(s)		
EB H	1	6524.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Union to Kaiser	2	708.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Kaiser to 3rd	3	592.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 3rd to 4th	4	426.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 4th to 5th	5	595	63.7	6	63.7	5	63.4	6	62.7	5	62.8	5	64.6	6	124.8	6	80.7	6	64.5	4	61.7	4	72.3	49.2	55.2	405.3	5.6	7.3
EB H: 6th to 7th	6	651.5	51.1	6	17.9	4	24.4	6	17.9	4	29.6	4	23.5	6	19.5	6	22.4	6	18.9	4	18.1	3	25.2	24.4	17.8	174.3	17.6	25
EB H: 7th to 8th	7	334	82.7	6	60	4	64.6	6	63.4	4	62.8	4	66.6	6	60.7	5	58.4	5	360.6	4	51.8	3	89.8	174.1	48.8	1252.4	2.5	4.7
EB H: 8th to 9th	8	339.8	19.9	6	13	4	12.9	6	13	4	13.7	4	13.1	6	18.5	5	23	5	62.4	4	13	3	19.8	29.5	12.1	210.6	11.7	19.1
EB H: 9th to 10th	9	315.6	104.4	6	21.4	3	13.5	6	107.4	4	19.5	4	70.8	6	13.3	5	15.9	5	31.5	3	9.4	2	44.6	89.7	8.6	434.5	4.8	24.9
EB H: 10th to 11th	10	315.6	37.3	6	13.8	3	73.5	6	13.7	3	30.4	3	32.1	6	20.7	5	17.5	4	479.9	3	30.8	2	66	221.3	8.6	1412	3.3	24.9
EB H: 11th to 12th	11	360.1	27.1	6	13.3	3	14.9	6	280.9	3	14.9	3	40.8	6	19.5	5	13.9	4	34.8	3	12.1	2	41.6	126.8	9.8	822.9	5.9	25
EB H: 12th to 13th	12	557.6	230.7	6	55.7	2	110.5	6	54.3	2	258.7	3	192.2	6	66.8	4	60	4	56.3	2	54.1	1	135.3	182.2	51.7	911.4	2.8	7.3
EB H: 13th to 14th	13	781.2	105.2	5	25.3	2	197.1	7	571.9	2	82.1	2	106.8	6	42.5	4	44.9	3	1016.1	2	38.3	1	184.7	382.3	25	2006.3	2.9	21.3
EB H: 14th to Starburst (incl ped sig)	14	511.7	15	5	60.2	2	27.8	7	62.1	2	35.7	2	43.8	6	27	4	44.8	3	36.2	2	15.8	1	34.7	22.3	14	65.7	10.1	24.9
WB H	15	6427.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: Starburst to 14th (incl. ped sig)	16	480.6	14.3	1	18.3	3	15.5	1	23.4	6	26.9	4	26.3	1	17.8	5	36.3	5	16.9	5	18.1	1	22.9	16.1	13.6	91.3	14.3	24.2
WB H: 14th to 13th	17	799.1	70.4	1	66.4	3	58	1	79.4	5	73.7	4	58.8	1	89.6	5	90.7	5	77.3	5	62.5	1	78.3	19.9	58	152.9	7	9.4
WB H: 13th to 12th	18	554.2	20.2	1	25.7	3	22.8	1	22.2	5	20.6	4	21.1	1	20.5	5	21.1	5	20	5	20.1	1	21.4	3	19	34.4	17.7	19.9
WB H: 12th to 11th	19	364	10.7	1	24.7	3	11.3	1	13.8	5	16	4	11.9	1	12.6	5	16	5	12.2	5	11.5	1	14.7	8.2	9.9	50.4	16.9	25
WB H: 11th to 10th	20	319.4	9.5	1	9	3	8.8	1	9.1	5	8.9	4	9.1	1	11	5	18.8	5	9.1	5	10.1	1	11	7.5	8.7	50.1	19.8	25
WB H: 10th to 9th	21	315.3	8.7	1	9.5	3	9	1	9.1	5	9.1	4	8.7	1	9.4	5	9.7	5	8.7	5	8.6	1	9.2	0.9	8.6	12.6	23.4	25
WB H: 9th to 8th	22	333.3	72.2	1	62.5	3	49.5	1	50.3	5	47.8	4	44.1	1	55.7	5	52.9	5	51.7	5	46.5	1	53	10.7	44.1	93.6	4.3	5.2
WB H: 8th to 7th	23	348.1	30.6	1	35.2	3	51.1	1	46.4	5	39.9	4	56.8	1	34.3	5	42.1	5	39.7	5	51.8	1	40.9	13.8	13.7	59.1	5.8	17.4
WB H: 7th to 6th	24	641	24.9	1	26.2	3	39.7	1	22.7	5	22.5	4	23.8	1	23.1	5	33.1	5	21.7	5	25.4	1	25.3	6.4	17.6	39.7	17.3	24.9
WB H: 6th to 4th	25	599.5	75.8	1	72.5	3	62.6	1	72.7	5	73.1	4	72.9	1	73.8	5	68.6	5	69.9	5	73.6	1	71.6	5.5	59.7	85.5	5.7	6.8
WB H: 4th to 3rd	26	413.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: 3rd to Kaiser	27	589.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WB H: Kaiser to Union	28	647.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB Benning	29	4103	247	4	249.1	3	257.3	6	242.9	3	234.1	3	240.2	4	243.1	5	235.5	4	236.8	3	265.3	2	245.1	26.5	201.8	335.4	11.4	13.9
EB Benning: Starbust to 16th	30	621.7	71.2	6	68.8	3	72	6	63.7	3	67	3	70.6	6	74.8	5	74.2	4	65.2	3	86.1	2	71.2	16.1	56.2	111.4	6	7.5
WB Benning: 16th to 17th	31	636.9	20.8	4	18.7	3	22.6	6	32.4	3	18.5	3	23	6	23.5	5	25.6	4	18.5	3	28.7	2	23	8.3	17.4	44.6	18.9	25
EB Benning: 17th to 19th	32	827.2	40.2	4	26.1	3	30.8	6	24.5	3	26	3	25.9	6	24.8	5	22.6	4	26	3	24.9	2	27.5	9.6	22.6	65.7	20.5	25
EB Benning: 19th to 21st	33	671.8	64	4	85.7	3	84.3	6	75.8	3	81.2	3	90.7	6	72.8	5	62	4	83.5	3	82.7	2	78.5	18.8	58.9	115.2	5.8	7.8
EB Benning: 21st to 24th	34	583.1	17.1	4	17.5	3	16.4	6	16	3	16.1	3	16.7	6	16.6	5	17.7	4	16.5	3	16.1	2	16.7	1.2	15.9	19.9	23.8	25
EB Benning: 24th to 26th	35	513.5	18.5	4	20.6	3	16.2	6	16.5	3	14	3	15.3	4	18.4	5	21	4	15.5	3	14.9	2	17.2	5.2	14	33.1	20.4	25
EB Benning: 26th to OK	36	237.9	11	4	10.9	3	14.4	6	12.9	3	10.8	3	11.1	4	11.5	5	11.2	4	11.1	3	11	2	11.8	2.8	10.7	26.8	13.7	15.1
WB Benning	37	4172.8	355.3	1	563	3	474	1	705	6	472.3	4	373.9	1	507.9	5	552.7	5	469.2	5	470.8	1	535.3	125.1	355.3	770.3	5.3	8
WB Benning: OK to 26th	38	273.5	52.3	4	63.5	5	61.9	4	66.6	6	62.9	6	51.7	4	59.9	6	50.1	6	59.6	6	49	2	58.6	13	47.3	95.8	3.2	3.9
WB Benning: 26th to 24th	39	496.1	38	4	30	4	35	4	37.9	5	29.4	6	36.3	4	36.5	5	30.8	5	51	6	24.4	2	35.9	25.4	14.3	133.6	9.4	23.7
WB Benning: 24th to 21st	40	583	65.8	4	62.6	4	37.5	3	80	5	61.5	5	21.2	3	57	5	53.3	5	52.4	5	16	1	55.7	41.1	16	172.8	7.1	24.8
WB Benning: 21st to 19th	41	598.6	70.7	3	72.2	4	50.1	3	61	5	62.7	5	52.6	3	86.9	5	88.1	5	52.3	5	40.3	1	66.8	31.1	25.2	169.3	6.1	16.2
WB Benning: 19th to 17th	42	875.1	110.8	4	111.1	5	123.5	4	144.2	6	99.3	6	104.8	4	99.3	5	111.3	6	100.2	5	141.6	2	113.2	26.7	80.1	206.3	5.3	7.4
WB Benning: 17th to 16th	43	655.6	95.4	4	101.5	4	90.1	4	141.4	6	55.8	6	93.2	4	108.6	6	90.6	6	60	6	51	1	91.7	59	19.2	254.2	4.9	23.2
WB Benning: 16th to Starburst	44	677.6	80.9	1	192.1	3	187.1	1	183.7	6	157.7	4	105.3	1	127.1	5	190.5	5	143.7	5	166.6	1	161.1	53.6	78.3	310.6	2.9	5.9
EB Corridor	45	9923.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB Corridor	46	10604.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Movement Group Delay for Scenario 2e: 2040 Build PM

Intersection Name	Intersection Number	All	LOS
Union Garage	10	33.7	C
Kaiser Garage	20	35.1	D
3rd	30	51.5	D
4th	40	39.1	D
6th	60	39.2	D
7th	70	40	D
8th	80	52	D
9th	90	27.5	C
10th	100	35.6	D
11th	110	40.9	D
12th	120	29.2	C
13th	130	55.3	E
14th	140	50.3	D
Florida	150	9.4	A
Starburst	151	23.5	C
Bladensburg/Maryland	152	8.5	A
16th	160	11.3	B
17th	170	20	B
19th	190	5.4	A
21st	210	10.6	B
24th	240	2.5	A
26th	260	6	A
Oklahoma	270	3	A
East Terminus	271	0.5	A

Queue Lengths for Scenario 2e: 2040 Build PM

Intersection	Approach	Movement	95% Queues per Run										Max	95%	Median	Average	Standard Deviation
			1	2	3	4	5	6	7	8	9	10					
			1	2	3	4	5	6	7	8	9	10					
Union Garage	NB	Left 2	117.9	145.8	119.1	189.4	231.1	181.3	119.2	80.9	97.9	361.1	461.5	184	20.1	46.9	66.4
		Right 2	117.9	145.8	119.1	189.4	231.1	181.3	119.2	80.9	97.9	361.1	461.5	184	20.1	46.9	66.4
	EB	Through	374.5	1489	1642.4	1157.8	952.9	1459.9	1134	1210.4	901.3	1642.4	1676.9	1371.2	19.5	269.9	453.6
		Right 2	374.5	1489	1642.4	1157.8	952.9	1459.9	1134	1210.4	901.3	1642.4	1676.9	1371.2	19.5	269.9	453.6
	WB	U-turn Marker	297	532.8	479.4	189.4	341.8	193.8	321.6	323	662.8	424.8	682.2	443.8	61.9	122	146.2
		Left 2	297	532.8	479.4	189.4	341.8	193.8	321.6	323	662.8	424.8	682.2	443.8	61.9	122	146.2
		Through	18	17.9	17	18	18.6	18.6	17.9	18.2	18.5	19	84.9	18.1	0	2	7.2
Kaiser Garage	NB	Right 2	56.4	222.9	139.7	152.8	208.8	70.6	75.4	96.6	137.3	225.1	255.3	152.8	0	29.7	56
	EB	Through	691.2	707.6	705.9	702.8	703.6	703.2	702.7	705.4	704.1	704.2	731.7	704.5	0	151.9	265.1
		Right 2	699.5	719.6	708.7	708.7	706.1	707	707.2	708.8	707.6	708.2	731.7	707.6	126.6	296.5	313
	WB	Through	0	0	0	0	0	0	0	0	0	0	89.1	0	0	0	1.2
3rd	NB	Left 2	64.1	74.3	78	79.2	58.9	59.8	66.7	107.7	79.3	79	241.1	76.2	0	19.5	27.1
		Through	64.1	74.3	78	79.2	58.9	59.8	66.7	107.7	79.3	79	241.1	76.2	0	19.5	27.1
		Right 2	64.1	74.3	78	79.2	58.9	59.8	66.7	107.7	79.3	79	241.1	76.2	0	19.5	27.1
	EB	Left 2	623.2	633.9	623.6	623.3	624.7	622.9	626.5	631.3	628.3	627.4	647.1	626.5	524.9	395.9	243.7
		Through	620.9	623.5	621.1	620.6	621.5	620.7	622.1	623.7	623.5	622.9	647.1	622.1	26.1	202.5	259.6
		Right 2	623.2	633.9	623.6	623.3	624.7	622.9	626.5	631.3	628.3	627.4	647.1	626.5	524.9	395.9	243.7
	SB	Left 2	406.6	407.8	404.3	407.1	398.2	406.1	406.9	405	406.2	407.3	432.8	406.2	320.4	271.9	136.1
		Through	406.6	407.8	404.3	407.1	398.2	406.1	406.9	405	406.2	407.3	432.8	406.2	320.4	271.9	136.1
		Right 2	397.1	398.4	394.8	397.6	388.7	396.6	397.5	395.5	396.8	397.8	423.4	396.7	310.9	262.7	135.6
	WB	Left 2	236.1	264.3	220.6	266.7	254.2	257.4	245.8	269.8	279.4	244.2	433.7	253.7	73.1	87.9	90.1
		Through	236.1	264.3	220.6	266.7	254.2	257.4	245.8	269.8	279.4	244.2	433.7	253.7	73.1	87.9	90.1
		Right 2	236.1	264.3	220.6	266.7	254.2	257.4	245.8	269.8	279.4	244.2	433.7	253.7	73.1	87.9	90.1
4th	EB	Through	431.1	443.6	442.6	441.1	431.4	442.5	433.4	443.2	432.3	447.1	495.2	441.8	171.2	187.8	169
		Right 2	431.1	443.6	442.6	441.1	431.4	442.5	433.4	443.2	432.3	447.1	495.2	441.8	171.2	187.8	169
	SB	Left 2	436	435.9	436.3	434.3	438.8	438.4	437.5	437.6	436.5	439.1	468	437.1	262.8	253.2	154.6
		Through	436	435.9	436.3	434.3	438.8	438.4	437.5	437.6	436.5	439.1	468	437.1	262.8	253.2	154.6
		Right 2	290.2	310.1	273	218.5	424.6	302.9	306.4	415.9	247.3	422.1	456.2	338.9	0	35.6	103
	WB	Left 2	100.2	105.4	105.2	106.7	86	106.7	99.7	106.8	103.9	101.2	277.3	103.6	0	18.8	37.4
		Through	100.2	105.4	105.2	106.7	86	106.7	99.7	106.8	103.9	101.2	277.3	103.6	0	18.8	37.4
6th	NB	Left 2	256.5	254.6	242.7	336.5	453.5	255.7	229.1	238.6	383	429.5	537.2	321.8	76.9	101.4	107.5
		Through	256.5	254.6	242.7	336.5	453.5	255.7	229.1	238.6	383	429.5	537.2	321.8	76.9	101.4	107.5
		Right 2	244.9	242.9	231.1	324.9	441.9	244.1	217.5	227	371.4	417.9	525.6	310.2	65.3	92.1	105.3
	EB	Left 2	611.4	613.1	627.4	613.4	610.1	631.6	612.5	612	610.3	611.3	666.3	612.9	428	357.5	233.2
		Through	611.4	613.1	627.4	613.4	610.1	631.6	612.5	612	610.3	611.3	666.3	612.9	428	357.5	233.2
	WB	Through	153.7	123.4	115.1	114.8	116.3	137.9	108.6	130.6	103.4	127.9	315.1	125.8	0	23.7	44.3
		Right 2	153.7	123.4	115.1	114.8	116.3	137.9	108.6	130.6	103.4	127.9	315.1	125.8	0	23.7	44.3
7th	EB	Left 2	643.1	643.4	650.1	643.9	643.3	643	643.4	643.4	642.8	653.4	687.7	643.4	451.1	383.7	235.1
		Through	643.1	643.4	650.1	643.9	643.3	643	643.4	643.4	642.8	653.4	687.7	643.4	451.1	383.7	235.1
		Right 2	643.1	643.4	650.1	643.9	643.3	643	643.4	643.4	642.8	653.4	687.7	643.4	451.1	383.7	235.1
	SB	Left 2	65.3	83.6	104.9	82.8	67.5	104.1	65.4	99.9	82.3	88.4	186.6	84.9	0	22	30.7
		Through	65.3	83.6	104.9	82.8	67.5	104.1	65.4	99.9	82.3	88.4	186.6	84.9	0	22	30.7
		Right 2	65.3	83.6	104.9	82.8	67.5	104.1	65.4	99.9	82.3	88.4	186.6	84.9	0	22	30.7
	WB	Left 2	42.3	39.3	20.5	39.8	57.2	20.4	38.9	39.5	40	39	147.5	39.8	0	5.2	14.8
		Through	42.3	39.3	20.5	39.8	57.2	20.4	38.9	39.5	40	39	147.5	39.8	0	5.2	14.8
		Right 2	42.3	39.3	20.5	39.8	57.2	20.4	38.9	39.5	40	39	147.5	39.8	0	5.2	14.8
8th	NB	Left 2	469.7	359.8	546.6	372.9	432.3	464.3	238.9	369.2	320	251.8	574.5	436.9	81.9	127.8	139.2
		Through	469.7	359.8	546.6	372.9	432.3	464.3	238.9	369.2	320	251.8	574.5	436.9	81.9	127.8	139.2
		Right 2	455.3	345.4	532.2	358.5	417.9	449.9	224.5	354.8	305.6	237.4	560	422.4	67.5	116.2	136.7
	EB	Left 2	347.1	359.6	361.9	357.4	358.8	347.6	359.4	362.5	350.5	352.9	403.3	357.7	257.6	233.4	120
		Through	347.1	359.6	361.9	357.4	358.8	347.6	359.4	362.5	350.5	352.9	403.3	357.7	257.6	233.4	120
		Right 2	347.1	359.6	361.9	357.4	358.8	347.6	359.4	362.5	350.5	352.9	403.3	357.7	257.6	233.4	120
	SB	Left 2	461.7	459.9	460.5	460.8	462.6	461.8	460.8	463.6	461.2	463.2	488.4	461.6	392.3	328.8	145.9
		Through	461.7	459.9	460.5	460.8	462.6	461.8	460.8	463.6	461.2	463.2	488.4	461.6	392.3	328.8	145.9
		Right 2	450.7	448.8	449.4	449.7	451.5	450.7	449.8	452.5	450.2	452.1	477.3	450.5	381.3	318	145.2
	WB	Left 2	118	129.8	133.5	138.9	137	131.3	125.5	123.7	138.4	128.2	329.1	128.5	0	35.8	48.2
		Through	118	129.8	133.5	138.9	137	131.3	125.5	123.7	138.4	128.2	329.1	128.5	0	35.8	48.2
		Right 2	118	129.8	133.5	138.9	137	131.3	125.5	123.7	138.4	128.2	329.1	128.5	0	35.8	48.2
9th	NB	Left 2	42.6	59.9	46.1	61.9	42.1	59.8	39.9	53.9	58.8	63.8	194.1	58.9	0	11.7	20.2
		Through	42.6	59.9	46.1	61.9	42.1	59.8	39.9	53.9	58.8	63.8	194.1	58.9	0	11.7	20.2
		Right 2	42.6	59.9	46.1	61.9	42.1	59.8	39.9	53.9	58.8	63.8	194.1	58.9	0	11.7	20.2
	EB	Left 2	339.9	350.2	349	342.2	339.7	340	336.1	344.8	348.1	345.3	408.7	341.6	146.3	158.7	120.7
		Through	339.9	350.2	349	342.2	339.7	340	336.1	344.8	348.1	345.3	408.7	341.6	146.3	158.7	120.7
		Right 2	339.9	350.2	349	342.2	339.7	340	336.1	344.8	348.1	345.3	408.7	341.6	146.3	158.7	120.7
	SB	Left 2	63	61.5	85	83	62.8	64.5	59.8	61.7	62.6	64	123.4	63	0	15.9	23.2
		Through	63	61.5	85	83	62.8	64.5	59.8	61.7	62.6	64	123.4	63	0	15.9	23.2
		Right 2	63	61.5	85	83	62.8	64.5	59.8	61.7	62.6	64	123.4	63	0	15.9	23.2
	WB	Left 2	82.5	62.4	62.1	61.5	61.6	64.7	77	61.4	62	66.8	154	63.4	0	11.9	23.6
		Through	82.5	62.4	62.1	61.5	61.6	64.7	77	61.4	62	66.8	154	63.4	0	11.9	23.6
		Right 2	82.5	62.4	62.1	61.5	61.6	64.7	77	61.4	62	66.8	154	63.4	0	11.9	23.6
10th	NB	Left 2	158.2	106.8	185.7	152.3	185.4	125.9	125.9	124.6	194.5	130.7	274.9	152.3	37.1	47.5	52.3
		Right 2	158.2	106.8	185.7	152.3	185.4	125.9	125.9	124.6	194.5	130.7	274.9	152.3	37.1	47.5	52.3
	EB	Through	332.4	333	332.6	343.8	331.3	332.7	330.7	331.3	333.3	332.8	386.7	332.5	198.8	198.1	114
		Right 2	332.4	333	332.6	343.8	331.3	332.7	330.7	331.3	333.3	332.8	386.7	332.5	198.8	198.1	114
	SB	Left 2	84	81.6	80.8	85.7	85	108.8	87.5	107.6	106	103.8	278.8	99.9	17	24.8	35.2
		Through	84	81.6	80.8	85.7	85	108.8	87.5	107.6	106	103.8	278.8	99.9	17	24.8	35.2
		Right 2	84	81.6	80.8	85.7	85	108.8	87.5	107.6	106	103.8	278.8	99.9	17	24.8	35.2
	WB	Left 2	104.1	94	93.5	94.5	86.7	79.6	94.2	92	108.2	94.1	183.1	94.2	0	17.9	32.8
		Through	104.1	94	93.5	94.5	86.7	79.6	94.2	92	108.2	94.1	183.1	94.2	0	17.9	32.8
11th	NB	Left 2	142.1	142.7	167.3	104.6	168.4	124.9	102.2	160.1	145.7	226.4	399.5	146.4	18.5	40.7	54.1
		Through	142.1	142.7	167.3	104.6	168.4	124.9	102.2	160.1	145.7	226.4	399.5	146.4	18.5	40.7	54.1
		Right 2	142.1	142.7	167.3	104.6	168.4	124.9	102.2	160.1	145.7	226.4	399.5	146.4	18.5	40.7	54.1
	EB	Left 2	334.7	339.9	334.8	332.8	330.4	337.5	332	335.3	331.6	334.7	384.6	334.8	231.2	212.7	112.2
		Through	334.7	339.9	334.8	332.8	330.4	337.5	332	335.3	331.6	334.7	384.6	334.8	231.2	212.7	112.2
		Right 2	334.7	339.9	334.8	332.8	330.4	337.5	332	335.3	331.6	334.7	384.6	334.8	231.2	212.7	112.2
	SB	Left 2	443.4	442.8	444.9	374.5	356.5	440.2	395.6	452.2	448.3	443.7	480.4	441.9	108.5	148.2	138.9
		Through	443.4	442.8	444.9	374.5	356.5	440.2	395.6	452.2	448.3	443.7	480.4	441.9	108.5	148.2	138.9
		Right 2	443.4	442.8	444.9	374.5	356.5	440.2	395.6	452.2	448.3	443.7	480.4	441.9	108.5	148.2	138.9
	WB	Left 2	368.1	149.8	126.3	147.2	370	180.5	278.1	211.6	234.3	244.2	391.1	279	54.5	84.3	94.5
		Through	368.1	149.8	126.3	147.2	370	180.5	278.1	211.6	234.3	244.2	391.1	279	54.5	84.3	94.5
		Right 2	368.1	149.8	126.3	147.2	370	180.5	278.1	211.6	234.3	244.2	391.1	279	54.5	84.3	94.5
12th	NB	Left 2	106.8	41.2	41.7	39.6	85.6	39.9	39.3	59.5	39.4	38.6	215.5	44.9	0	8.6	21
		Through	106.8	41.2	41.7	39.6	85.6	39.9	39.3	59.5	39.4	38.6	215.5	44.9	0	8.6	21
		Right 2	106.8	41.2	41.7	39.6	85.6	39.9	39.3	59.5	39.4	38.6	215.5	44.9	0	8.6	21
	EB	Left 2	379.4	374.6	376.9	375.7	376.6	371.9	372.7	376.7	375.3	379.8	434.1	375.9	167.5	179.5	136.4
		Through	379.4	374.6	376.9	375.7	376.6	371.9	372.7	376.7	375.3	379.8	434.1	375.9	167.5	179.5	136.4
		Right 2	379.4	374.6	376.9	375.7	376.6	371.9	372.7	376.7	375.3	379.8	434.1	375.9	167.5	179.5	136.4
	SB	Left 2	38.9	40.5	42.1	39.8	39.6	41.3	18.7	41.2	40.7	58.4	108.8	40.5	0	6.4	15.4
		Through	38.9	40.5	42.1	39.8	39.6	41.3	18.7	41.2	40.7	58.4	108.8	40.5	0	6.4	15.4
		Right 2	38.9	40.5	42.1	39.8	39.6	41.3	18.7	41.2	40.7	58.4	108.8	40.5	0	6.4	15.4
	WB	Left 2	265.4	145.3	147.1	154.8	196.2	161.8	147.8	146.9	151.4	171.2	423.7	166.2	0	37.8	61.5
		Through	265.4	145.3	147.1	154.8	196.2	161.8	147.8	146.9	151.4	171.2	423.7	166.2	0	37.8	61.5
		Right 2	265.4	145.3	147.1	154.8	196.2	161.8	147.8	146.9	151.4	171.2	423.7	166.2	0	37.8	61.5

13th	NB	Left 2	491.2	320	276.8	285.3	187.9	400.5	447.7	261.5	422.5	341.1	570	362.7	82.3	115.4	115.9
		Through	491.2	320	276.8	285.3	187.9	400.5	447.7	261.5	422.5	341.1	570	362.7	82.3	115.4	115.9
		Right 2	491.2	320	276.8	285.3	187.9	400.5	447.7	261.5	422.5	341.1	570	362.7	82.3	115.4	115.9
	EB	Left 2	568.3	568.6	568.4	567.8	571.2	569.4	567.2	568.1	567.4	568.5	624.5	568.4	444.4	413.9	154.7
		Through	568.3	568.6	568.4	567.8	571.2	569.4	567.2	568.1	567.4	568.5	624.5	568.4	444.4	413.9	154.7
		Right 2	568.3	568.6	568.4	567.8	571.2	569.4	567.2	568.1	567.4	568.5	624.5	568.4	444.4	413.9	154.7
	SB	Left 2	752.7	753.7	746.8	754.2	746.7	748.2	756.1	756	749	750.6	783.8	752.8	338	377.2	262.1
		Through	752.7	753.7	746.8	754.2	746.7	748.2	756.1	756	749	750.6	783.8	752.8	338	377.2	262.1
		Right 2	752.7	753.7	746.8	754.2	746.7	748.2	756.1	756	749	750.6	783.8	752.8	338	377.2	262.1
	WB	Left 2	140.2	131.1	109.4	120.3	137	137	119.1	138.7	141.7	105.9	340.8	127	0	26.8	45.1
		Through	140.2	131.1	109.4	120.3	137	137	119.1	138.7	141.7	105.9	340.8	127	0	26.8	45.1
		Right 2	140.2	131.1	109.4	120.3	137	137	119.1	138.7	141.7	105.9	340.8	127	0	26.8	45.1
14th	EB	Through	794.7	795.2	794.9	795.2	794.7	794.1	794	795.7	794.7	796.1	852.2	795.2	478.5	476.2	239.2
		Right 2	794.7	795.2	794.9	795.2	794.7	794.1	794	795.7	794.7	796.1	852.2	795.2	478.5	476.2	239.2
	SB	Left 2	1226.9	1227.8	1227.1	1231.9	1226	1230.7	1227.9	1225.9	1232.6	1229.2	1254.5	1228.3	1210.2	1177.8	113
		Through	1226.9	1227.8	1227.1	1231.9	1226	1230.7	1227.9	1225.9	1232.6	1229.2	1254.5	1228.3	1210.2	1177.8	113
		Right 2	1222.9	1223.8	1223.1	1227.9	1222	1226.7	1223.9	1221.9	1228.6	1225.2	1250.5	1224.3	1206.2	1173.8	113
	WB	Left 2	88.6	81.6	44.7	60.1	84	60.2	66.1	61.6	47.8	67.2	275.8	65.5	0	12.1	26.2
		Through	88.6	81.6	44.7	60.1	84	60.2	66.1	61.6	47.8	67.2	275.8	65.5	0	12.1	26.2
Florida	EB	Through	322.2	322.6	306.9	305.8	323.5	307.1	320.2	324.3	316.5	326.1	358.1	322.3	41.2	80.8	96.7
	WB	Through	58.4	41.8	42.1	43.4	42.4	41.8	58.1	46.3	40.9	42.1	120.8	42.5	0	8.8	18.1
		Right 1	0	0	0	0	0	0	0	0	0	0	128.1	0	0	2.1	12.4
Starburst	NB	Right 1	154.1	168.7	167.2	170.3	166.8	191.6	323.7	300.9	230.7	195.7	387.6	232.4	82.7	92.5	71
		Right 2	154.1	168.7	167.2	170.3	166.8	191.6	323.7	300.9	230.7	195.7	387.6	232.4	82.7	92.5	71
	NEB	Through	379.3	327.9	198.4	252.7	270.9	261.4	270	228.5	203.3	184.2	466.1	271.5	101.8	111.8	84
		Right 1	379.3	327.9	198.4	252.7	270.9	261.4	270	228.5	203.3	184.2	466.1	271.5	101.8	111.8	84
	EB	Left 1	132.6	78.3	94.3	131.8	82.3	156.1	93.1	159.9	141.5	71.8	284.6	120.2	0	25.1	43.3
		Through	124.8	95.9	105.2	77.3	95.4	91	73.9	79.3	71.9	140.1	237.5	95.9	0	20.5	36.7
		Right 3	124.8	95.9	105.2	77.3	95.4	91	73.9	79.3	71.9	140.1	237.5	95.9	0	20.5	36.7
	SWB	Through	124.6	157.3	122.9	127.9	116.9	121.7	142.1	146.8	119.7	125.3	260.1	128	35	41.7	46
		Right 1	124.6	157.3	122.9	127.9	116.9	121.7	142.1	146.8	119.7	125.3	260.1	128	35	41.7	46
	WB	Through	160.4	164.4	141	146.3	142.2	144.5	147.1	165	143.8	146.3	403.1	146.6	0	40.8	58.9
		Right 3	160.4	164.4	141	146.3	142.2	144.5	147.1	165	143.8	146.3	403.1	146.6	0	40.8	58.9
Bladensburg/Maryland	NEB	Left 2	38.2	39.4	40	40.9	40.6	37.8	38.9	40.1	41.7	39.6	149.9	39.6	0	5.5	14.3
		Through	38.2	39.4	40	40.9	40.6	37.8	38.9	40.1	41.7	39.6	149.9	39.6	0	5.5	14.3
		Right 2	38.2	39.4	40	40.9	40.6	37.8	38.9	40.1	41.7	39.6	149.9	39.6	0	5.5	14.3
	SEB	Left 2	78.1	81	65.2	80.3	61.4	63	82	77.9	63.2	65.8	199	78.1	0	18.6	25.9
		Through	78.1	81	65.2	80.3	61.4	63	82	77.9	63.2	65.8	199	78.1	0	18.6	25.9
		Right 2	78.1	81	65.2	80.3	61.4	63	82	77.9	63.2	65.8	199	78.1	0	18.6	25.9
	SWB	Left 2	59.1	47.9	42.5	60	62.3	58.9	60.2	58.1	57.8	58.9	144.7	58.8	0	9.7	19.9
		Through	59.1	47.9	42.5	60	62.3	58.9	60.2	58.1	57.8	58.9	144.7	58.8	0	9.7	19.9
		Right 2	59.1	47.9	42.5	60	62.3	58.9	60.2	58.1	57.8	58.9	144.7	58.8	0	9.7	19.9
	NWB	Left 2	103.2	82.4	82.3	87.6	86	96.5	82.7	97.9	88.3	84.9	218.5	88.1	18	26.6	32.4
		Through	103.2	82.4	82.3	87.6	86	96.5	82.7	97.9	88.3	84.9	218.5	88.1	18	26.6	32.4
		Right 2	103.2	82.4	82.3	87.6	86	96.5	82.7	97.9	88.3	84.9	218.5	88.1	18	26.6	32.4
16th	NB	Left 2	105.7	126.2	144.6	119.5	97.1	107.1	100.3	108.1	103.8	105	278.3	107.1	17.9	30.3	39.7
		Through	105.7	126.2	144.6	119.5	97.1	107.1	100.3	108.1	103.8	105	278.3	107.1	17.9	30.3	39.7
		Right 2	105.7	126.2	144.6	119.5	97.1	107.1	100.3	108.1	103.8	105	278.3	107.1	17.9	30.3	39.7
	EB	Left 2	17.3	0	0	0	17.3	17.8	17.3	16.5	0	0	82.3	0	0	1	4.9
		Through	71.6	65.4	63.5	72.3	74.8	63.4	79.5	63.5	63.2	76.7	155.5	65.7	0	14.2	25.1
		Right 2	50.6	48.9	48.5	51	59.7	48.3	63.9	45.5	47.5	61	140.4	49.2	0	8.3	19.4
	SB	Left 2	209.7	111.4	126.7	175.6	103.9	230.4	230.3	180.9	230.8	186.8	260	185.8	29.1	47.8	58.2
		Through	209.7	111.4	126.7	175.6	103.9	230.4	230.3	180.9	230.8	186.8	260	185.8	29.1	47.8	58.2
		Right 2	209.7	111.4	126.7	175.6	103.9	230.4	230.3	180.9	230.8	186.8	260	185.8	29.1	47.8	58.2
	WB	Left 2	0	17.8	0	17.1	0	18.1	17.1	0	18	0	105.3	16.2	0	1.2	5.9
		Through	170.2	153.2	175.2	153.9	164.2	198.1	175.6	211.3	180.5	177.6	340.6	174.2	0	43.7	63.5
		Right 2	170.2	153.2	175.2	153.9	164.2	198.1	175.6	211.3	180.5	177.6	340.6	174.2	0	43.7	63.5
17th	EB	Left 2	18.3	17.7	16.7	17.4	0	19	19.4	18.7	0	25.6	124.5	18.2	0	1.9	8.6
		Through	224.3	186.6	203.9	197.3	190.7	233.7	196.6	238	243	199.9	538.7	213.2	19.5	56	75.4
		Right 2	224.3	186.6	203.9	197.3	190.7	233.7	196.6	238	243	199.9	538.7	213.2	19.5	56	75.4
	SB	Left 2	569	326.8	566.8	568.6	563.3	383.9	559	433.1	563.7	448.7	596.9	557.8	106.7	168.1	173.5
		Through	568.3	326	561.9	566.9	566.5	384.3	556.5	433.4	564	437.6	597.3	555.9	88.4	160.7	171.2
		Right 2	556.4	314	549.9	554.9	554.5	372.3	544.6	421.5	552.2	425.6	585.3	544	76.5	150.8	169.4
	WB	Left 2	36.8	38.7	35.9	41.3	40.3	59.3	59.4	40.1	37.2	40.7	155.1	40.8	0	7.1	17.7
		Through	268.6	250.7	219.6	218.2	255.8	261.7	294.3	253	252.7	252.9	584.8	252.7	17.2	59.2	86.4
		Right 2	260.9	243	213.9	210.5	248.1	254	286.6	245.3	245	245.2	577.1	245.1	0	53.7	84.6
19th	NB	Left 2	103.7	105.6	105.9	104.5	102.9	107.3	105	105.4	104.7	85.2	212.4	104.7	19.4	35.2	36.1
		Through	103.7	105.6	105.9	104.5	102.9	107.3	105	105.4	104.7	85.2	212.4	104.7	19.4	35.2	36.1
		Right 2	103.7	105.6	105.9	104.5	102.9	107.3	105	105.4	104.7	85.2	212.4	104.7	19.4	35.2	36.1
	EB	Left 2	0	0	0	0	0	0	0	0	0	0	41.3	0	0	0.2	1.8
		Through	83.3	83.1	79.3	77.6	90.7	102.7	80.8	101.6	97.4	96	365.9	85.8	0	20.6	37.3
	WB	Through	79.3	82.2	80.5	81.5	85.1	94	78.5	81.6	108.3	98.4	370.4	82.8	0	17.2	35.7
		Right 2	79.3	82.2	80.5	81.5	85.1	94	78.5	81.6	108.3	98.4	370.4	82.8	0	17.2	35.7
21st	NB	Left 2	124.9	124.4	106.4	149.5	129.7	143.5	164.8	145.6	168.6	172.5	401.9	146.8	19.8	43.5	52.5
		Through	124.9	124.4	106.4	149.5	129.7	143.5	164.8	145.6	168.6	172.5	401.9	146.8	19.8	43.5	52.5
		Right 2	124.9	124.4	106.4	149.5	129.7	143.5	164.8	145.6	168.6	172.5	401.9	146.8	19.8	43.5	52.5
	EB	Left 2	0	0	18.8	18.2	14.9	19.3	0	16.3	27.3	18.9	89.7	18	0	1.8	7.9
		Through	63.1	78.5	108	67.6	86.2	83.6	106.3	86.6	94.2	106.3	531	86.2	0	21.5	45
		Right 2	63.1	78.5	108	67.6	86.2	83.6	106.3	86.6	94.2	106.3	531	86.2	0	21.5	45
	SB	Left 2	128.6	124.5	129.4	172.7	105.8	123.4	150.7	103.9	105.5	102.8	315.1	125.7	19.2	38.3	44.6
		Through	128.6	124.5	129.4	172.7	105.8	123.4	150.7	103.9	105.5	102.8	315.1	125.7	19.2	38.3	44.6
		Right 2	128.6	124.5	129.4	172.7	105.8	123.4	150.7	103.9	105.5	102.8	315.1	125.7	19.2	38.3	44.6
	WB	Left 2	0	0	0	0	0	0	0	0	0	14.2	38.7	0	0	0.3	2.6
		Through	125.5	138.5	145.3	168.6	148.9	139.5	169.1	172.6	170.6	145.1	366.8	150.6	0	36.5	55.9
		Right 2	125.5	138.5	145.3	168.6	148.9	139.5	169.1	172.6	170.6	145.1	366.8	150.6	0	36.5	55.9
24th	NB	Left 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
		Right 2	39.8	39.1	38.2	18.5	39	20.3	36.9	38.8	19.9	38.6	165.2	38	0	6.1	14
	EB	Through	40.4	38.4	38.2	39.5	21.3	20.3	37	19.7	37	39.8	241.6	38.3	0	4.5	19.1
	WB	Through	58.6	59.7	66	60	57.8	50.4	63.2	50.4	64.1	60.7	391.5	59.9	0	9.2	27.5
26th	EB	Left 2	0	0	0	19	0	27.3	0	17.7	0	0	161.5	0	0	1.1	6.2
		Through	109.1	45.3	127	84.6	62.2	66	58.2	45.1	42.1	84.7	521.7	69.8	0	12.1	38.2
	SB	Left 2	146.7	146.8	146.4	143.9	144.7	124.9	148.6	142.3	124.7	148.1	258.4	145.8	37.9	45.8	49.2
		Right 2	134.1	134.2	133.8	131.3	132.2	112.4	136	129.7	112.1	135.5	245.8	133.2	25.3	36.5	46.2
	WB	Through	92.7	87.4	90.6	103.2	106.4	101.7	103.8	103.1	84.4	104.3	276.9	99.2	0	17.5	36.1
		Right 2	92.7	87.4	90.6	103.2	106.4	101.7	103.8	103.1	84.4	104.3	276.9	99.2	0	17.5	36.1
Oklahoma	NEB	Left 3	76.7	75.3	79.3	61.7	61	76.8	41.9	55.6	62.5	60.9	187.2	62.5	0	13.1	24
		Right 1	56.9	55.5	59.5	41.9	41.2	57	22.2	35.9	42.7	41.1	167.4	42.7	0	6.7	17.6
	EB	Through	154.3	99.7	159	85.1	80	117.5	102.1	115.3	122.8	122.9	273.5	116.3	0	21.1	46.3
		Right 3	154.3	99.7	159	85.1	80	117.5	102.1	115.3	122.8	122.9	273.5	116.3	0	21.1	46.3
	WB	Left 1	60	56.3	60.4	52.9	61.4	41.2	50.1	39.7	43.4	40.3	175.2	52.3	0	7.1	18.8
		Through	60	56.3	60.4	52.9	61.4	41.2	50.1	39.7	43.4	40.3	175.2	52.3	0	7.1	18.8
East Terminus	EB	Through	0	0	0	0	0	0	0	0	0	0	79.8	0	0	0.3	4.5
	WB	Through	0	0	0	0	0	0	0	0	0	0	106.5	0	0	1.5	9.9

Travel Times for General Traffic for Scenario 2e: 2040 Build PM

Name	TravelTime Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10		Average (s)	Standard Deviation (s)	Min(s)	Max(s)		
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume						
EB H	1	6524.8	730.9	431	895.9	384	847.4	367	743.6	397	783.1	415	750.6	407	788.9	408	821.9	403	815.5	450	866.3	430	803.6	240.1	316.7	1617.2	5.5	14
EB H: Union to Kaiser	2	708.4	65.6	1200	111.7	1068	101	1055	70.3	1095	82.9	1135	79.7	1131	79.6	1162	94.1	1133	98.3	1187	117.2	1137	89.8	96.9	16.9	600.1	5.4	28.5
EB H: Kaiser to 3rd	3	592.9	74.3	1270	99.1	1102	89.5	1122	81.8	1148	73.5	1211	79.7	1191	82.1	1262	85.9	1187	85.9	1244	93.6	1181	84.3	59	14.6	805.6	4.8	27.7
EB H: 3rd to 4th	4	426.4	47.1	1052	61.6	926	56.1	925	48.5	941	44.5	988	50.4	976	49.4	1026	52.1	980	52.7	1034	57.5	991	51.9	40.9	10.4	285.8	5.6	28
EB H: 4th to 5th	5	595	78.2	1037	100.6	944	94.1	942	82.4	962	85.8	1002	81.9	991	87.9	1057	92.8	989	88.1	1040	94.6	1005	88.5	71.6	14.4	623.4	4.6	28.2
EB H: 6th to 7th	6	651.5	93.1	981	118.7	910	105.7	916	94.8	940	95.4	978	98.9	962	101.3	1004	104.3	940	99.4	988	104.9	1000	101.5	64	16.1	483	4.4	27.6
EB H: 7th to 8th	7	334	58.1	963	64.3	901	59.5	910	52.5	931	56.3	985	54.5	970	57.7	1005	57.1	921	56.8	999	61.2	986	57.8	45.2	8.2	345.9	3.9	27.9
EB H: 8th to 9th	8	339.8	46.4	916	51	870	47.7	893	44.6	899	43.5	955	41.9	925	44.7	951	45.2	863	43.9	940	46.3	954	45.5	28.5	8.2	204.3	5.1	28.3
EB H: 9th to 10th	9	315.6	53	959	54.3	921	55.2	947	51.2	961	48.8	997	48.8	966	48.4	999	54.9	908	52.6	993	52.1	994	51.9	28.8	7.8	196.4	4.1	27.7
EB H: 10th to 11th	10	315.6	56.2	973	55.8	937	55.8	946	54	992	51.7	1015	49.2	979	51.2	1022	59	944	52	1021	52.5	1020	53.7	27.8	7.9	197.2	4	27.1
EB H: 11th to 12th	11	360.1	46.1	1036	49.1	1010	47.9	1027	44.3	1056	42.2	1110	43.8	1067	44.1	1079	48.8	1008	42.3	1097	41.8	1087	45	21.3	9.8	164.2	5.5	25.1
EB H: 12th to 13th	12	557.6	89.8	1251	94.5	1203	94.4	1207	89.1	1223	85.2	1266	88.9	1225	86.5	1258	90.6	1206	84.3	1272	86.3	1268	88.9	28.9	17.2	211.4	4.3	22.2
EB H: 13th to 14th	13	781.2	98.7	1216	104.4	1170	101.3	1174	100.7	1182	96.1	1221	100.5	1190	98.6	1203	106.9	1143	94.9	1239	96.1	1210	99.7	30.1	29.1	242.1	5.3	18.3
EB H: 14th to Starburst (incl ped sig)	14	511.7	35.8	1127	35.7	1074	35.2	1103	33.3	1074	33.9	1126	35.3	1124	33.5	1131	34.3	1070	33.5	1141	37.5	1119	34.8	21.6	12.8	166.9	10	27.2
WB H	15	6427.1	328.7	245	294.6	243	290.5	213	290.4	224	311.5	222	297.6	216	298.6	225	296.8	207	300.2	248	300.5	218	301.2	53.2	197.1	612.8	14.5	22.2
WB H: Starburst to 14th (incl. ped sig)	16	480.6	21.1	691	21.2	679	19.6	636	20.1	663	21.7	664	19.9	686	20.7	684	19.3	694	19.6	662	20.8	664	20.4	11.2	11.5	140.2	16.1	28.4
WB H: 14th to 13th	17	799.1	32.3	650	31.1	628	28.5	603	29.8	623	31.1	615	31.6	654	31.1	637	31.9	653	31.5	619	30.8	625	31	15.5	19.2	108.4	17.6	28.4
WB H: 13th to 12th	18	554.2	37.1	637	26.5	609	26.9	594	27.2	603	31.6	589	28.6	641	28	608	26.5	631	27	589	28.6	607	28.8	16.5	13.1	268.2	13.1	28.7
WB H: 12th to 11th	19	364	54.7	750	23.3	716	21.6	699	23.2	683	47.9	679	24	733	40.6	722	31	739	31.4	702	35	717	33.4	43.2	8.7	410.5	7.4	28.6
WB H: 11th to 10th	20	319.4	17.4	624	14.5	569	14.7	572	15.2	585	15.3	542	14.6	580	15.5	573	16.2	606	15.9	563	16	569	15.5	13.4	7.6	106.3	14	28.6
WB H: 10th to 9th	21	315.3	16.3	600	15.7	556	15.7	556	15.1	563	15.3	539	16.9	573	16.7	549	15.9	593	16	561	16.5	560	16	13	7.4	135.8	13.4	29.1
WB H: 9th to 8th	22	333.3	17.3	569	19.5	564	20.6	549	20	550	19.3	534	19.9	567	18.6	538	18.7	588	18.7	562	18.9	541	19.1	15	7.8	109.9	11.9	29.2
WB H: 8th to 7th	23	348.1	13.6	581	13.7	582	13.6	555	13.8	573	14.4	552	13	577	13.8	529	13.2	582	13.8	576	13.3	556	13.6	9.8	8.2	59.6	17.5	28.9
WB H: 7th to 6th	24	641	27	631	25.6	621	25	608	24.9	618	26	589	26.7	625	25.8	572	26.3	615	24.9	629	25.7	611	25.8	12.6	15.3	88.6	16.9	28.5
WB H: 6th to 4th	25	599.5	25.3	624	25.6	625	24.9	593	25.4	621	24.3	597	26.7	616	24.9	573	24.4	607	25.1	629	25.4	617	25.2	11	14.4	92.5	16.2	28.4
WB H: 4th to 3rd	26	413.5	36.8	632	40.1	637	37.4	590	40.2	624	38.1	595	38.8	630	38.2	589	40	603	40.6	626	39	611	38.9	21.7	9.7	212.4	7.2	29
WB H: 3rd to Kaiser	27	589.2	16	628	16.1	632	16.1	590	16	623	16	576	15.9	604	16	598	16.1	599	16.4	630	16	611	16.1	1.2	14.1	55.6	25	28.5

WB H: Kaiser to Union	28	647.4	18.5	662	18.2	672	18.4	634	17.8	648	18.4	632	17.9	626	18.5	615	18.3	635	18.4	663	18.8	648	18.3	3	15	60.5	24.1	29.4
EB Benning	29	4103	134.5	1191	132.1	1130	135.5	1178	132.1	1155	132.2	1192	132.7	1158	132.8	1205	133.8	1180	132.1	1156	134.8	1170	133.3	35.4	100.7	459.1	21	27.8
EB Benning: Starbust to 16th	30	621.7	20.8	1538	20.8	1461	20.7	1511	21	1468	20.7	1530	20.9	1502	21.1	1531	20.4	1478	20.6	1531	21	1516	20.8	11.7	14.9	104.9	20.4	28.5
WB Benning: 16th to 17th	31	636.9	27.7	1619	26.6	1532	26.5	1593	26.8	1565	26.5	1618	26	1592	26.6	1592	28.1	1550	28.2	1597	26.2	1587	26.9	14.4	15	148.3	16.1	28.9
EB Benning: 17th to 19th	32	827.2	26.9	1498	27.2	1436	27.2	1467	26.5	1450	26.9	1482	27.5	1490	27.1	1493	27.5	1444	26.8	1474	27.1	1458	27.1	10.9	20.1	116.4	20.8	28
EB Benning: 19th to 21st	33	671.8	21.7	1886	22	1806	22.9	1857	21.8	1829	21.8	1851	21.3	1859	22.6	1867	22.2	1818	21.9	1854	23.2	1829	22.2	8.5	15.8	98.9	20.6	29
EB Benning: 21st to 24th	34	583.1	18.2	1867	18.3	1786	18.6	1851	18.4	1812	18.1	1833	17.9	1834	18.6	1849	18.4	1794	17.9	1829	18.5	1813	18.3	7.6	13.8	72.3	21.7	28.9
EB Benning: 24th to 26th	35	513.5	17.8	1957	16.2	1873	17.9	1922	17.1	1869	16.4	1902	16.8	1876	16	1918	16.2	1854	16.2	1892	17.3	1887	16.8	5.4	12.2	84.7	20.8	28.8
EB Benning: 26th to OK	36	237.9	8.8	1979	8.1	1887	9.2	1935	8.1	1877	7.9	1921	8.5	1890	7.9	1925	8.4	1877	8.4	1904	8.5	1904	8.4	6.1	5.6	68.6	19.3	29.1
WB Benning	37	4172.8	187.6	642	185.5	623	184.6	634	187	671	183.2	613	190	623	189.2	619	189.2	703	188.5	639	187.8	630	187.3	40.3	111.3	474	15.2	25.6
WB Benning: OK to 26th	38	273.5	10.9	1325	10.8	1326	10.8	1325	11.5	1359	10.9	1337	10.9	1347	11	1366	10.7	1371	11	1391	10.9	1356	10.9	7.3	6.4	59.4	17.1	29.1
WB Benning: 26th to 24th	39	496.1	15.5	1164	15.6	1184	15.9	1183	15.8	1193	15.3	1172	15.3	1180	15.6	1226	14.9	1216	16.4	1218	15.8	1179	15.6	6.4	11.8	65.5	21.7	28.7
WB Benning: 24th to 21st	40	583	25.1	1181	25.9	1209	26.1	1198	27.1	1223	26.4	1197	25.5	1213	26.3	1250	27.6	1231	27.1	1249	26.4	1191	26.4	13.1	13.8	96.8	15.1	28.9
WB Benning: 21st to 19th	41	598.6	18	1185	18.1	1214	17.9	1198	18.1	1224	18.1	1196	18.3	1225	18.1	1245	18	1229	19	1244	18.7	1194	18.2	6.1	14.4	88.2	22.4	28.4
WB Benning: 19th to 17th	42	875.1	40.5	1237	40.7	1200	38.3	1200	38.7	1264	39.3	1228	42.2	1278	42.1	1317	40.4	1255	41.4	1231	39.7	1243	40.3	13.6	21.3	119.1	14.8	28
WB Benning: 17th to 16th	43	655.6	32.6	968	32.6	935	32.9	954	33	982	32.6	973	35.2	978	32.8	990	34.2	1012	32.5	948	33	961	33.1	17.1	16.2	129.1	13.5	27.7
WB Benning: 16th to Starburst	44	677.6	40.4	886	38.4	850	39	870	37.2	900	38.5	874	38.6	900	38.8	893	38.1	935	38	871	41	870	38.8	19.6	16.7	185.6	11.9	27.7
EB Corridor	45	9923.5	832.8	355	950.8	313	905.3	294	811.7	313	847	356	816.9	328	854.5	347	855.8	340	855.7	368	906	355	862.9	221.9	416.5	1943.5	7.8	16.2
WB Corridor	46	10604.3	525.2	137	501.5	127	494.1	119	494.7	129	518.2	128	510.4	116	505.8	118	497.8	121	504.3	141	504.9	128	505.9	106.5	341.8	1006.6	14.3	21.2

Travel Times for Streetcar for Scenario 2c: 2013 Build PM

Name	TravelTime Section	Distance (ft)	Run																				Travel Time				Average Speed (mph)	85th Percentile (mph)
			1		2		3		4		5		6		7		8		9		10							
			Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Travel Time(s)	Volume	Average (s)	Standard Deviation (s)	Min(s)	Max(s)		
EB H	1	6524.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Union to Kaiser	2	708.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: Kaiser to 3rd	3	592.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 3rd to 4th	4	426.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB H: 4th to 5th	5	595	153.7	6	266.6	6	181.6	6	154.5	6	150.7	6	166.9	6	155.4	6	146.1	6	141.2	6	161.4	6	167.8	107.3	60.4	564.7	2.4	6.7
EB H: 6th to 7th	6	651.5	104	5	109	5	112	6	96.4	5	129.1	6	113.3	6	126.1	6	99.4	5	136.5	6	142.3	5	117.4	60.4	20.1	266.6	3.8	22.1
EB H: 7th to 8th	7	334	108.8	5	114	5	83.4	5	107.3	5	123.9	5	109.1	5	108.4	5	149.6	5	97.3	5	132.1	5	113.4	57.1	47.3	249.6	2	4.8
EB H: 8th to 9th	8	339.8	60.8	5	59	5	73.4	5	54.4	5	39.5	5	55.4	5	57.4	5	77.2	5	26.3	5	33.6	5	53.7	39.7	12.2	204.3	4.3	19.1
EB H: 9th to 10th	9	315.6	67.1	5	45.2	5	51.3	5	64.4	5	52.3	5	49	5	63.2	5	51.4	5	34.5	5	61.9	5	54	24.3	8.7	115.2	4	24.7
EB H: 10th to 11th	10	315.6	34.2	5	78.8	5	57.2	5	45.6	5	55.6	5	66.3	5	47.8	5	67.1	5	55	5	47.2	5	55.5	30.1	9.7	152.3	3.9	22.1
EB H: 11th to 12th	11	360.1	59.8	5	57.5	5	56.3	5	42.7	4	44.9	5	53.1	5	41.3	5	35	5	55.1	5	59	5	50.6	18.5	17.6	101	4.9	13.9
EB H: 12th to 13th	12	557.6	134.2	5	125.1	5	123.8	5	125.6	5	145.9	5	130.2	4	124.8	5	134	4	123.4	6	126.2	6	129	21.9	92.8	174.8	2.9	4.1
EB H: 13th to 14th	13	781.2	100.6	6	100	6	113	6	106.6	5	85.5	6	110	4	87.5	5	120.5	5	101.7	6	91.9	6	101.2	29.7	51	196.6	5.3	10.4
EB H: 14th to Starburst (incl ped sig)	14	511.7	52.6	6	52.1	6	36.9	6	52.3	5	54.9	6	34.3	5	55.3	5	46.5	5	48.1	6	48.5	6	48.2	21.1	14.1	70.5	7.2	24.7
WB H	15	6427.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: Starburst to 14th (incl. ped sig)	16	480.6	15.9	6	18	6	17.1	6	16.2	6	16.4	6	15.8	6	15.1	6	16.5	6	16.1	6	15.8	6	16.3	2.3	13.6	24.6	20.1	24.1
WB H: 14th to 13th	17	799.1	67	6	62.3	6	62	6	70.3	6	64.4	6	66.6	6	69.6	6	65.9	6	64.1	6	66.7	6	65.9	5.9	57.9	76.8	8.3	9.4
WB H: 13th to 12th	18	554.2	22.5	6	20	6	20.1	6	19.8	6	20.5	6	19.8	6	19.9	6	19.9	6	20	6	19.9	6	20.3	1.8	19.6	33.3	18.6	19.3
WB H: 12th to 11th	19	364	32.2	6	10.1	6	10.3	6	10.4	6	18.9	6	10	6	10	6	10.1	6	10.1	6	10.1	6	13.2	13.7	9.9	95.7	18.8	25
WB H: 11th to 10th	20	319.4	32.2	6	29.7	6	34.8	6	29.8	6	29.4	6	24.7	6	39.4	6	29.9	6	39.7	6	39.7	6	32.9	14.7	9.5	47.6	6.6	22.8
WB H: 10th to 9th	21	315.3	15.6	6	24.7	6	19.9	6	24.3	6	18.8	6	29.3	6	15.8	6	24.4	6	15.4	6	15.6	6	20.4	13.1	8.6	40.6	10.5	25
WB H: 9th to 8th	22	333.3	48	6	46.1	6	48.7	6	48.3	6	59.1	6	48.4	6	48.1	6	48.3	6	58	6	48.5	6	50.2	11.2	43.9	109.9	4.5	5.2
WB H: 8th to 7th	23	348.1	31.1	6	37.6	6	34.6	6	35.5	6	28.4	6	35.9	6	34.9	6	35.3	6	31.8	6	34.2	6	33.9	5.8	13.8	40.4	7	17.2
WB H: 7th to 6th	24	641	28	6	24	6	18.6	6	28.4	6	21.7	6	23.2	6	19.4	6	19.4	6	20.7	6	24.5	6	22.8	10.2	17.5	70.9	19.2	25
WB H: 6th to 4th	25	599.5	63.1	6	61.8	6	60.6	6	61.3	6	61.6	6	61.6	6	61.3	6	60.7	6	65	6	60.5	6	61.7	4.3	56.1	81.2	6.6	7.3
WB H: 4th to 3rd	26	413.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB H: 3rd to Kaiser	27	589.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

WB H: Kaiser to Union	28	647.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EB Benning	29	4103	274.1	5	279.2	5	266.8	5	279.4	5	269.2	5	262.4	5	274.4	5	259.7	5	275.1	5	269.6	5	271	22.2	223.9	319	10.3	12.5
EB Benning: Starbust to 16th	30	621.7	68.1	5	77.3	5	72.4	5	71.3	5	82.3	6	86.8	5	83.7	5	66.7	5	67.5	5	72.6	5	75	15.1	56.2	104.9	5.7	7.5
WB Benning: 16th to 17th	31	636.9	57.7	5	42.3	5	35.3	5	48.7	5	46.4	6	28.4	5	43.8	5	50.8	5	51.1	5	46.8	5	45.2	19.2	17.4	77.5	9.6	25
EB Benning: 17th to 19th	32	827.2	25.6	5	36.6	5	26.2	5	29.3	5	26.2	5	23.3	5	25.7	5	26.1	5	30.6	5	27.2	5	27.7	6.6	22.6	54.2	20.4	25
EB Benning: 19th to 21st	33	671.8	63.7	5	63.4	5	78.7	5	65.9	5	64.2	5	73.6	5	66.4	5	62.7	5	64.6	5	67.6	5	67.1	9	57.3	98.9	6.8	8
EB Benning: 21st to 24th	34	583.1	21.1	5	32.7	5	21.1	5	27.1	5	20.3	5	17.2	5	19.1	5	22.2	5	31.3	5	19.8	5	23.2	9.9	15.9	55.3	17.1	25
EB Benning: 24th to 26th	35	513.5	20.3	5	14.8	5	17.1	5	18.9	5	18.6	5	20.9	5	23.2	5	16.3	5	16.6	5	19.5	5	18.6	7.9	14	55.3	18.8	25
EB Benning: 26th to OK	36	237.9	16.2	5	10.9	5	15.3	5	17	5	10.9	5	11.5	5	11.4	5	13.8	5	12.1	5	14.7	5	13.4	6	10.6	35.7	12.1	15.3
WB Benning	37	4172.8	371	6	352.5	6	386.1	6	337.4	6	386.8	6	366.7	6	386.2	6	369.9	6	370.7	6	368.1	6	369.5	40.9	286.2	474	7.7	9.9
WB Benning: OK to 26th	38	273.5	50	6	51.1	6	49.9	6	52.2	6	50	6	51.3	6	50.3	6	50.4	6	51	6	49.4	6	50.5	2.3	46.2	59.4	3.7	4
WB Benning: 26th to 24th	39	496.1	14.5	6	15.1	6	14.3	6	16	6	15	6	14.3	6	14.3	6	15.4	6	14.8	6	14.3	6	14.8	1.5	14.2	21	22.9	23.8
WB Benning: 24th to 21st	40	583	16.4	6	21.7	6	17.2	6	21.7	6	16.4	6	16.1	6	17.4	6	17.1	6	20.5	6	15.9	6	18	6.6	15.9	50.4	22.1	25
WB Benning: 21st to 19th	41	598.6	20.8	6	21.5	6	20.8	6	21.6	6	20.9	6	20.9	6	20.9	6	20.7	6	26.6	6	20.8	6	21.5	4.5	20.4	55.4	19	20
WB Benning: 19th to 17th	42	875.1	70.9	6	73.4	6	82.4	6	83.1	5	77.1	6	68.7	6	78.3	6	80.5	6	73.7	6	78.3	6	76.5	15.8	61.6	114.4	7.8	9.7
WB Benning: 17th to 16th	43	655.6	53.8	7	46.3	5	47.6	5	33	5	60	5	61.1	7	61.7	7	43.4	5	53.8	6	52.1	6	52.1	21	18	113.5	8.6	24.8
WB Benning: 16th to Starburst	44	677.6	133.9	6	123.8	6	155.8	6	120	6	151.5	6	126.2	6	135.4	6	142.9	6	124.1	6	144.2	6	135.8	28.7	79.9	185.6	3.4	5.8
EB Corridor	45	9923.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WB Corridor	46	10604.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0