WAWA - 9700 FAIRFAX BOULEVARD

FAIRFAX, VIRGINIA

Traffic Impact Study

JUNE 26, 2019

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EXECUTIVE SUMMARY

This report presents the results of a traffic impact study for a proposed Wawa convenience market (defined as a Grocery Store under the City of Fairfax Zoning Ordinance) and fuel station in the northwest corner of the intersection of Fairfax Boulevard (U.S. Route 29/U.S. Route 50) and Spring Street in the City of Fairfax, Virginia.

SITE LOCATION AND STUDY AREA

The site is located in the northwest corner of the intersection of Fairfax Boulevard (U.S. Route 29/U.S. Route 50) and Spring Street in the City of Fairfax, Virginia. A 55-room motel currently exists on the site. The motel is currently open for business. The site is bounded on the north by industrial uses, on the south by Fairfax Boulevard, on the east by Spring Street, and on the west by a bank. A car dealership and shopping center are located across Fairfax Boulevard from the site, and a used car dealer is located across Spring Street from the site.

A traffic study scoping meeting was held with City of Fairfax Staff on April 11, 2019. The following intersections were identified for study during the scoping meeting:

1. Fairfax Boulevard and Draper Drive (signalized)
2. Fairfax Boulevard and Site Driveway (unsignalized)
3. Fairfax Boulevard and Spring Street (unsignalized)
4. Fairfax Boulevard and Fairfax Circle West (signalized)
5. Fairfax Boulevard and Fairfax Circle East (signalized)

DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed 6,049 square foot grocery store and fuel station with 12 fueling positions will be constructed on the site of the existing motel. Vehicle access will be provided via one full-movement entrance on Spring Street and a right-in/right-out entrance on Fairfax Boulevard.

SITE TRIP GENERATION

The site is expected to generate 135 net new primary trips in the AM peak hour and 97 net new primary trips in the PM peak hour. The remainder of the trips generated by the site are pass-by trips consisting of vehicles that will already be on the roadways en route to some other destination. Because the majority of the total trips generated by the site are pass-by trips, most of the trips generated by the proposed development will not increase the traffic volume on the study area roadways.

PRINCIPLE FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

A traffic analysis was prepared for the proposed Wawa development for 2019 Existing, 2021 Background (i.e. future without the proposed development), and 2021 Total Future (i.e. future with the proposed development) conditions.

The capacity analysis results show that under 2021 Total Future conditions, all signalized intersections operate with overall LOS D or better. Increases in delay due to development traffic are minimal with the exception of the intersection of Fairfax Boulevard and Spring Street.

At the intersection of Fairfax Boulevard and Spring Street, the analysis showed that there are heavier delays for the northbound and southbound approaches under *existing* conditions. Due to the east-west traffic flows along Fairfax Boulevard during the peak hours, additional delays are experienced for vehicles turning from the minor streets. It is noted that these delays are not uncommon or unexpected for unsignalized approaches to busier corridors. The delay increases under background and total future conditions.

It is anticipated that eastbound motorists will find a balance between waiting out the delays to make a left-turn at the southbound approach of Spring Street during peak traffic periods and utilizing an alternate route, such as instead turning right from Spring Street onto Fairfax Boulevard and making a U-turn at Draper Drive, or turning right on Draper Drive and then heading east on Kingsbridge Drive.

The capacity and queueing analyses showed that the westbound left-turn/U-turn movement at the intersection of Fairfax Boulevard and Draper Drive has the capacity to accommodate additional U-turns if drivers choose that as an alternative route.

The queuing analysis results show that most movements will experience similar queueing under total future conditions as compared to background conditions, except for the southbound movement at the intersection of Fairfax Boulevard and Spring Street. All turn lanes will be able to accommodate 95th percentile queues, including the westbound left-turn lane at the intersection of Fairfax Boulevard and Draper Drive which is expected to serve additional U-turn traffic generated by the proposed development.

The site access and vehicular circulation along the area roadways will operate in a safe and efficient manner with the addition of the Wawa.

INTRODUCTION

This report presents the results of a traffic impact study for a proposed Wawa convenience market (defined as a Grocery Store under the City of Fairfax Zoning Ordinance) and fuel station in the northwest corner of the intersection of Fairfax Boulevard (U.S. Route 29/U.S. Route 50) and Spring Street in the City of Fairfax, Virginia. The proposed development of the site will involve the demolition of a 55-room motel and construction of a 6,049 square-foot Wawa grocery store with 12 fueling positions. Access to the site will be provided by one full-movement access on Spring Street and one right-in/right-out access on Fairfax Boulevard.

This report describes the area transportation system, existing traffic volumes, the calculation of background traffic volumes (i.e. future traffic volumes without the proposed development), additional traffic generated by the proposed development of the grocery store/fuel station, and the calculation of total future volumes (i.e. future traffic volumes with the proposed development) and analysis. A traffic study scoping meeting was held on April 11, 2019 with representatives from the City staff. At the scoping meeting it was determined that intersection capacity and queueing analyses be performed for the AM and PM commuter peak hours at the identified study intersections.

BACKGROUND INFORMATION

DESCRIPTION OF ONSITE DEVELOPMENT

The site for the proposed Wawa grocery store and fuel station is located in the northwest corner of the intersection of Fairfax Boulevard (U.S. Route 29/U.S. Route 50) and Spring Street in the City of Fairfax, Virginia. A 55-room motel currently exists on the site. The site is bounded on the north by industrial uses, on the south by Fairfax Boulevard, on the east by Spring Street, and on the west by a bank. A car dealership and shopping center are located across Fairfax Boulevard from the site, and a used car dealer is located across Spring Street from the site. The site location is shown in Figure 1.

The proposed grocery store will contain 6,049 square feet of gross floor area. The fuel station portion of the proposed development will contain 12 fueling positions. Vehicle access will be provided via one full-movement entrance on Spring Street and a right-in/right-out (RI/RO) entrance on Fairfax Boulevard. The proposed RI/RO entrance on Fairfax Boulevard is located approximately 300 feet from Spring Street, measured center-to-center. The proposed full-movement entrance on Spring Street is located approximately 250 feet from Fairfax Boulevard, measured center-to-center. These entrances are located in approximately the same location as entrances to the existing site. A third entrance to the existing site, a RI/RO entrance on Fairfax Boulevard located approximately 70 feet from Spring Street, will be closed as a part of the proposed development.

The existing sidewalk along Fairfax Boulevard will remain, and a sidewalk will be constructed along the site frontage on Spring Street.

A conceptual site plan showing the site access and walkways is shown in Figure 2.

STUDY AREA

The following intersections were identified for study during the scoping meeting with City Staff:

1. Fairfax Boulevard and Draper Drive (signalized)
2. Fairfax Boulevard and Site Driveway (unsignalized)
3. Fairfax Boulevard and Spring Street (unsignalized)
4. Fairfax Boulevard and Fairfax Circle West (signalized)
5. Fairfax Boulevard and Fairfax Circle East (signalized)

Figure 3 shows the existing lane designations and traffic control at the study intersections.

Source: Google Earth Pro

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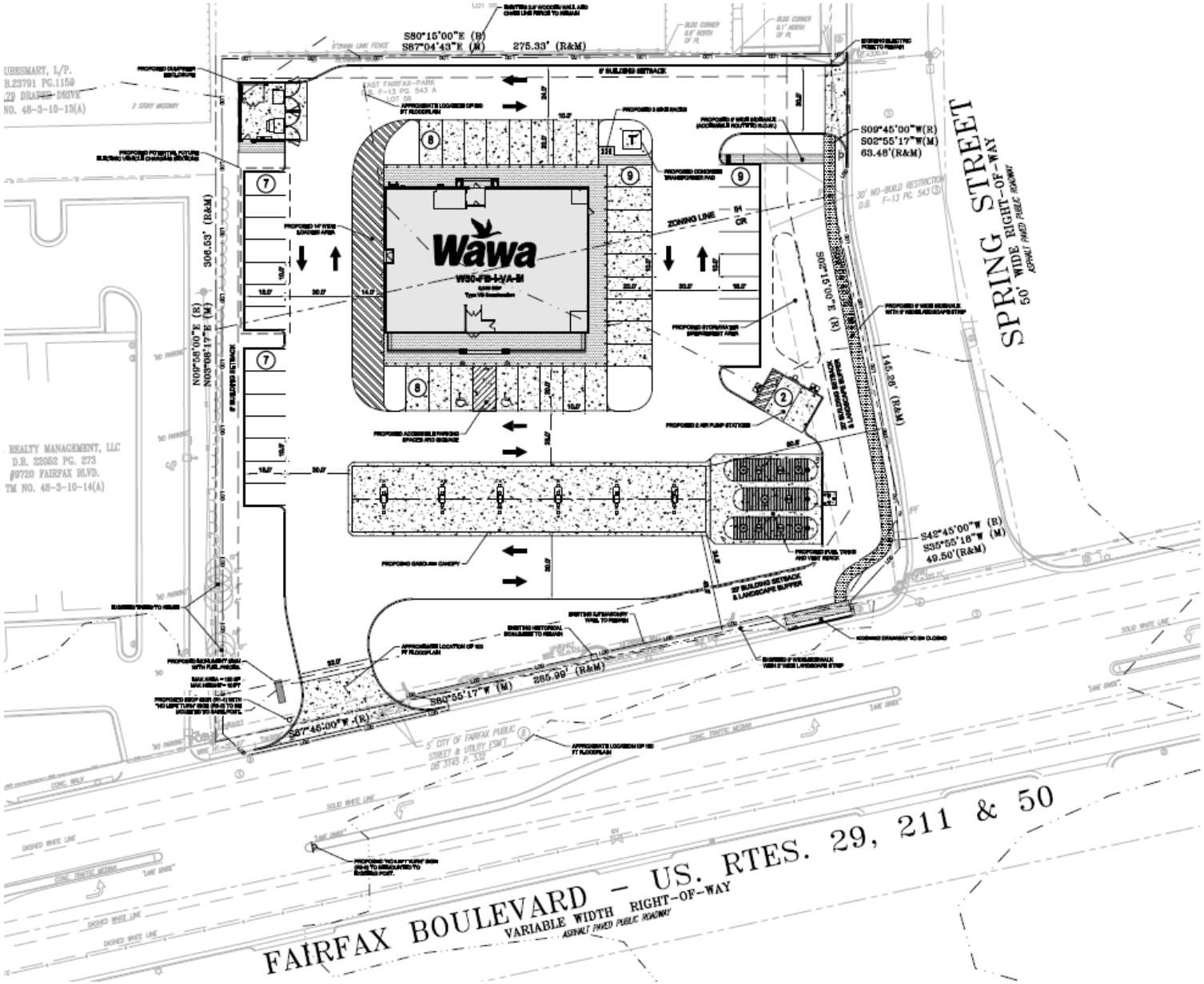
Site Vicinity Map

Wawa - 9700 Fairfax Blvd

Figure 1



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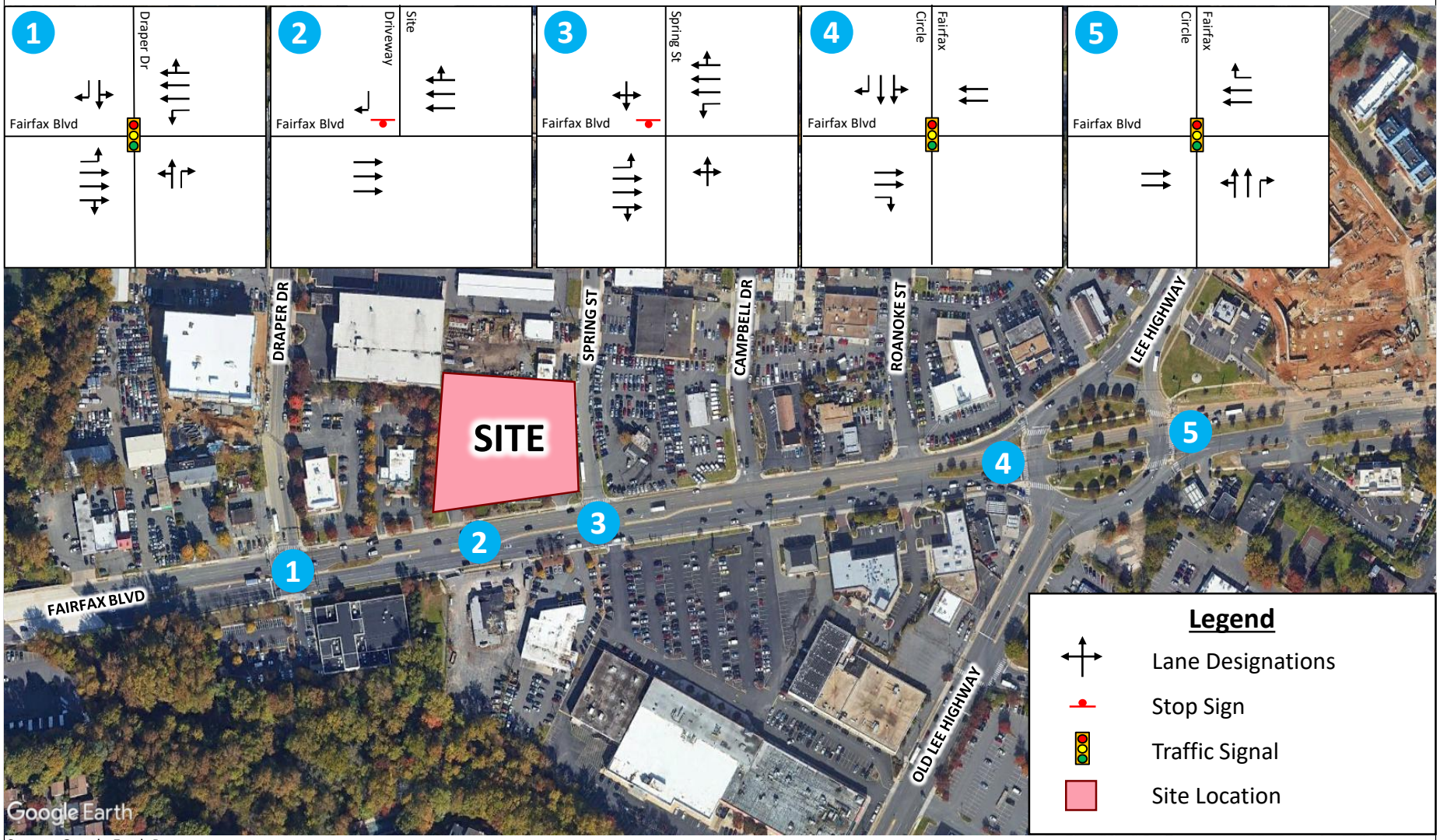
Conceptual Site Plan and Site Access

Wawa - 9700 Fairfax Blvd

Figure 2



Source: Google Earth Pro

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Existing Lane Designations

Wawa - 9700 Fairfax Blvd

Figure 3

EXISTING AREA ROADWAYS

Key roadways in the study area are Fairfax Boulevard, Lee Highway, Old Lee Highway, Draper Drive, and Spring Street.

Fairfax Boulevard (U.S. Route 29/U.S. Route 50) – This is a six-lane divided principal arterial that runs east-west through the study area. Fairfax Boulevard primarily serves commercial uses. East of Pickett Road, this roadway is referred to as Arlington Boulevard. The speed limit in the vicinity of the study area is 35 mph. All five study intersections are located on Fairfax Boulevard. The study intersections of Fairfax Boulevard at Fairfax Circle West, Fairfax Circle East, and Draper Drive are signalized. The intersections of Fairfax Boulevard at Spring Street and the site driveway are unsignalized.

Lee Highway (U.S. Route 29) – This is a principal arterial that runs north-south in the study area. Lee Highway extends northeast from Fairfax Circle, through Falls Church and Arlington, and into Washington, D.C. This roadway generally has a four-lane, divided section. The speed limit in the vicinity of the study area is 40 mph.

Old Lee Highway – This is a minor arterial that runs north-south in the study area. Old Lee Highway extends southwest from Fairfax Circle to Main Street. This roadway transitions from a four-lane, divided section north of Ridge Avenue to a two-lane, undivided section south of Ridge Avenue. It has a 30 mph speed limit.

Draper Drive – This is a two-lane undivided collector that runs north-south in the study area. It extends from Fairfax Boulevard to its northern terminus at Kingsbridge Drive. It has a 25 mph speed limit. The study intersection of Draper Drive and Fairfax Boulevard is signalized.

Spring Street – This is a two-lane undivided local road that runs north-south in the study area. It extends from Fairfax Boulevard approximately 1,000 feet before reaching a dead-end prior to Blake Lane. The speed limit is not posted. The study intersection of Spring Street and Fairfax Boulevard is unsignalized.

EXISTING AREA TRANSIT SERVICE

There are two bus services currently operating in the vicinity of the site: the City-University-Energysaver (CUE) Bus and the Washington Metropolitan Area Transit Authority (WMATA) Metrobus.

The CUE Gold route is a loop that runs between George Mason University and the Vienna Metro Station. It operates on the west side of Fairfax and runs along Fairfax Boulevard, as well as Draper Drive, in the vicinity of the site. The Gold loop consists of two lines: Gold 1, which runs clockwise, and Gold 2, which runs counterclockwise. Gold 1 operates from 5:40 AM to 11:10 PM on weekdays, from 8:25 AM to 8:52 PM on Saturdays, and from 10:00 AM to 6:28 PM on Sundays. Gold 2 operates from 5:25 AM to 9:57 PM on weekdays, from 8:00 AM to 8:27 PM on Saturdays, and from 9:33 AM to 6:01 PM on Sundays. Both lines operate with 30-minute headways on weekdays and one-hour headways on weekends.

The CUE Green route is another loop that runs between George Mason University and the Vienna Metro Station. It operates on the east side of Fairfax and runs along Fairfax Boulevard in the vicinity of the site. The Green loop consists of two lines: Green 1, which runs clockwise, and Green 2, which runs counterclockwise. Green 1 operates from 5:30 AM to 11:00 PM on weekdays, from 8:25 AM to 8:35 PM on Saturdays, and from 10:00 AM to 5:55 PM on Sundays. Green 2 operates from 5:15 AM to 8:43 PM on weekdays, from 8:02 AM to 8:12 PM on Saturdays, and from 9:37 AM to 5:32 PM on Sundays. Both lines operate with 30-minute headways on weekdays and one-hour headways on weekends.

The Metrobus 1C line runs in both directions from McConnell Public Safety and Transportation Operations Center/Fair Oaks Mall to Dunn Loring Metro Station. This line runs along Fairfax Boulevard in the vicinity of the site. The 1C line operates from 4:00 AM to 12:26 AM on weekdays, from 6:25 AM to 11:35 PM on Saturdays, and from 7:20 AM to 11:09 PM on Sundays. On weekdays, it operates with 30-minute headways during peak hours and one-hour headways during off-peak hours. On weekends, it operates with one-hour headways.

Existing transit stops are shown in Figure 4.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Fairfax County's Cross County Trail is a shared use path that runs north-south from the Potomac River in Great Falls National Park to the Occoquan River in Occoquan Regional Park. This trail can be accessed just east of the proposed Wawa site, near Fairfax Circle. Additionally, Wilcoxon Trail is an asphalt path that runs from Fairfax Boulevard along Ridge Avenue east to Pickett Road, where it connects to the Cross County Trail.

There are marked crosswalks at all signalized study intersections, and there is a marked crosswalk across Spring Street at its intersection with Fairfax Boulevard. There are sidewalks on both sides of Fairfax Boulevard.

There are no on-road bicycle facilities within the study area.

FUTURE PEDESTRIAN AND BICYCLE FACILITIES

As part of the George Snyder Trail Extension Project, a two-mile trail will be constructed along the southern side of Accotink Creek, running east/west between Chain Bridge Road (Route 123) and Fairfax Boulevard. The City of Fairfax plans to connect this trail to the proposed VDOT shared use path along Route 123 and in conjunction with the I-66 Outside the Beltway improvements.

The trail extension will terminate at Fairfax Boulevard just west of Draper Drive. This project will provide enhanced pedestrian and bicycle connectivity to the site from points to the west.

FUTURE ROADWAY IMPROVEMENTS

Currently there are no funded roadway improvements within the study area.

Source: Google Earth Pro

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Bus Stop Locations

Wawa - 9700 Fairfax Blvd

Figure 4

EXISTING TRAFFIC CONDITIONS

Existing traffic conditions represent current traffic volumes within the study area.

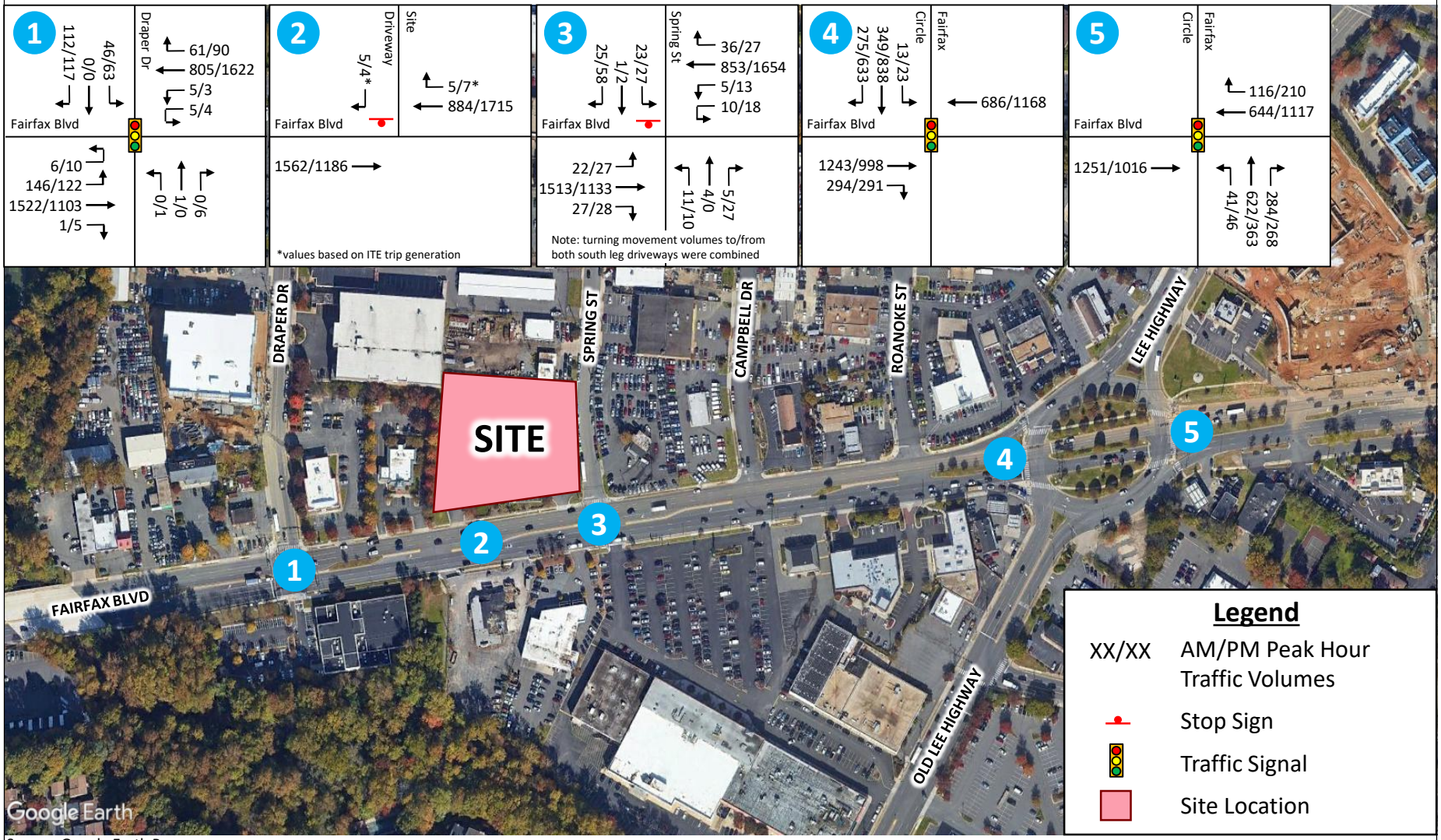
EXISTING TRAFFIC VOLUMES

City of Fairfax staff directed that the AM and PM commuter peak hours be analyzed for the study intersections.

Vehicle, pedestrian, and bicycle movement counts were collected on Thursday, May 2, 2019 from 6:30 AM to 9:30 AM and from 4:00 PM to 7:00 PM. The count summaries for the AM and PM peak hours are contained in Appendix A.

For the purposes of this study, the traffic counts will represent existing 2019 conditions. The overall study area network peak hours were determined to be 8:00 AM to 9:00 AM for the AM peak period and 4:45 PM to 5:45 PM for the PM peak period. Existing peak hour traffic volumes at the study intersections are shown in Figure 5.

Existing peak hour pedestrian and bicycle volumes are shown in Figure 6 and Figure 7, respectively.



Source: Google Earth Pro

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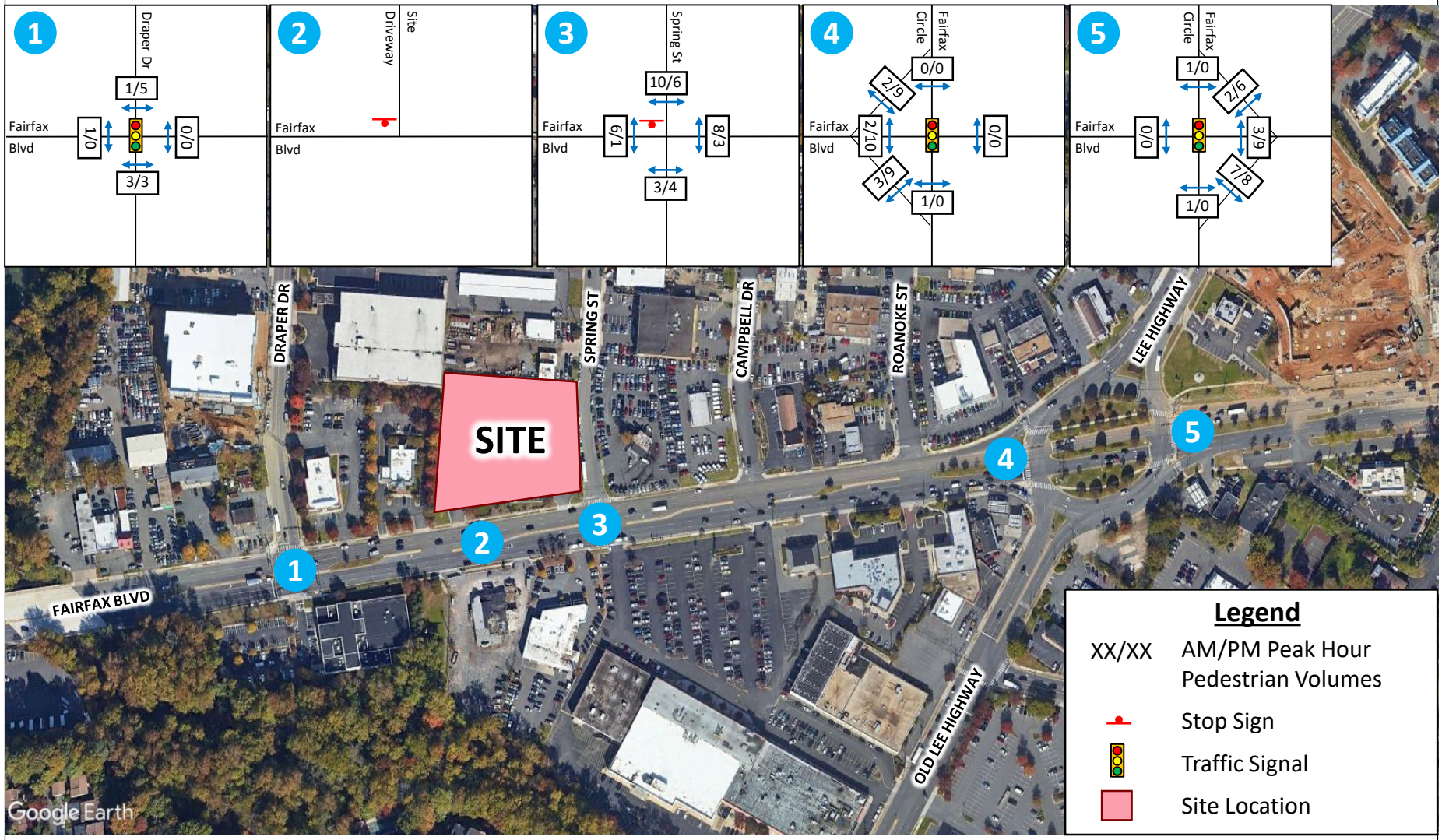
2019 Existing Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 5



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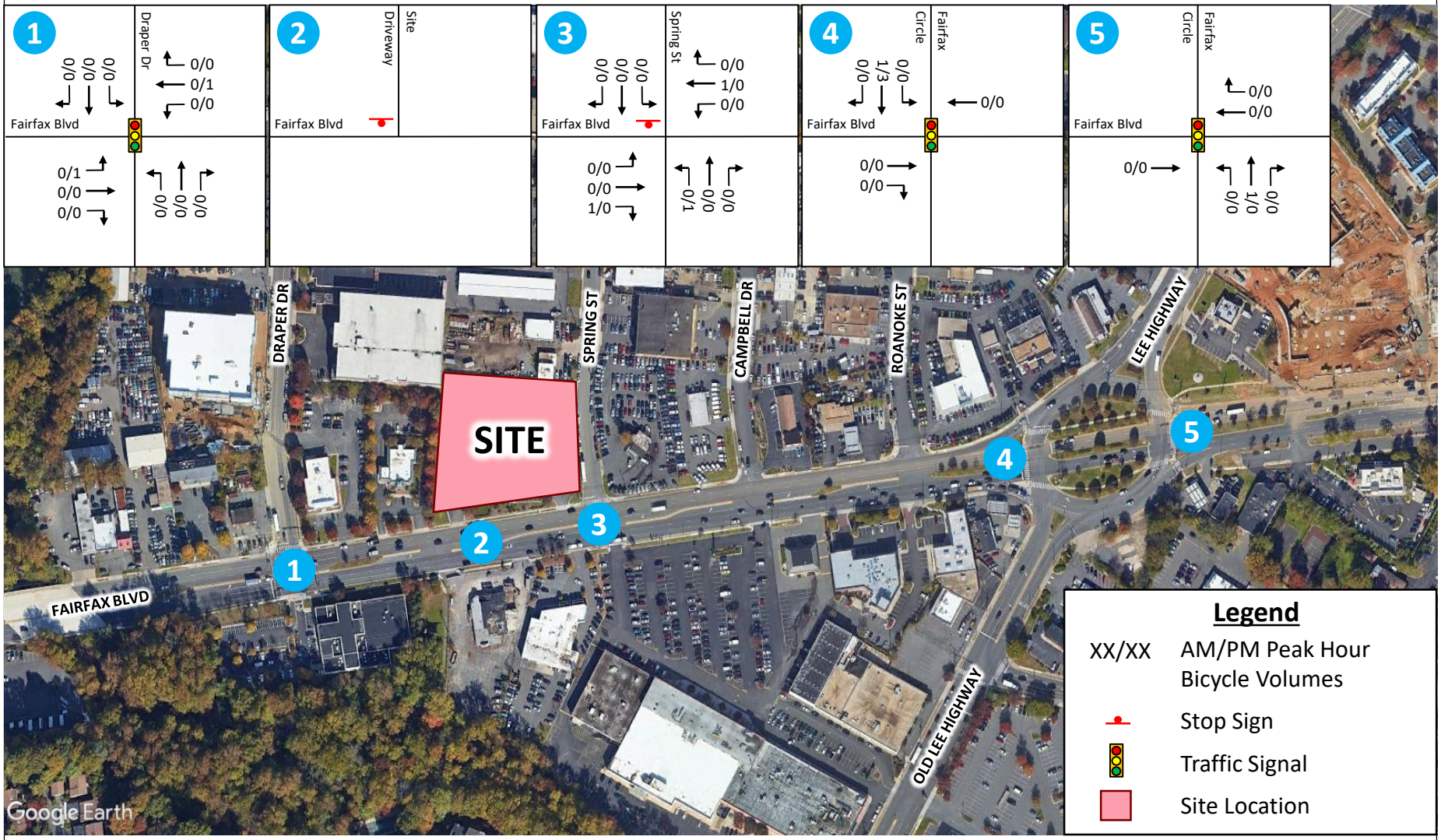
Existing Peak Hour Pedestrian Volumes

Wawa - 9700 Fairfax Blvd

Figure 6



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Existing Peak Hour Bicycle Volumes

Wawa - 9700 Fairfax Blvd

Figure 7

BACKGROUND TRAFFIC CONDITIONS

Background traffic conditions (i.e. future traffic conditions without the proposed development) represent future traffic that would travel through the study area intersections without the proposed Wawa. The background traffic includes trips that are generated by the current use on the site because the current use was open for business when the traffic counts were conducted.

The analysis year for the future background traffic conditions is the year 2021, which is the assumed build-out year for proposed development.

The background traffic volumes were developed by applying an annual traffic growth rate to existing volumes and adding the estimated trips that would be generated by nearby approved and unbuilt developments.

BACKGOUND TRAFFIC GROWTH

An annual growth rate of 1% per year was applied to the existing volumes, based on the scoping meeting with the City of Fairfax. The growth rate was applied exponentially.

2021 Base peak hour traffic volumes (i.e. existing traffic volumes grown to the year 2021) are shown in Figure 8.

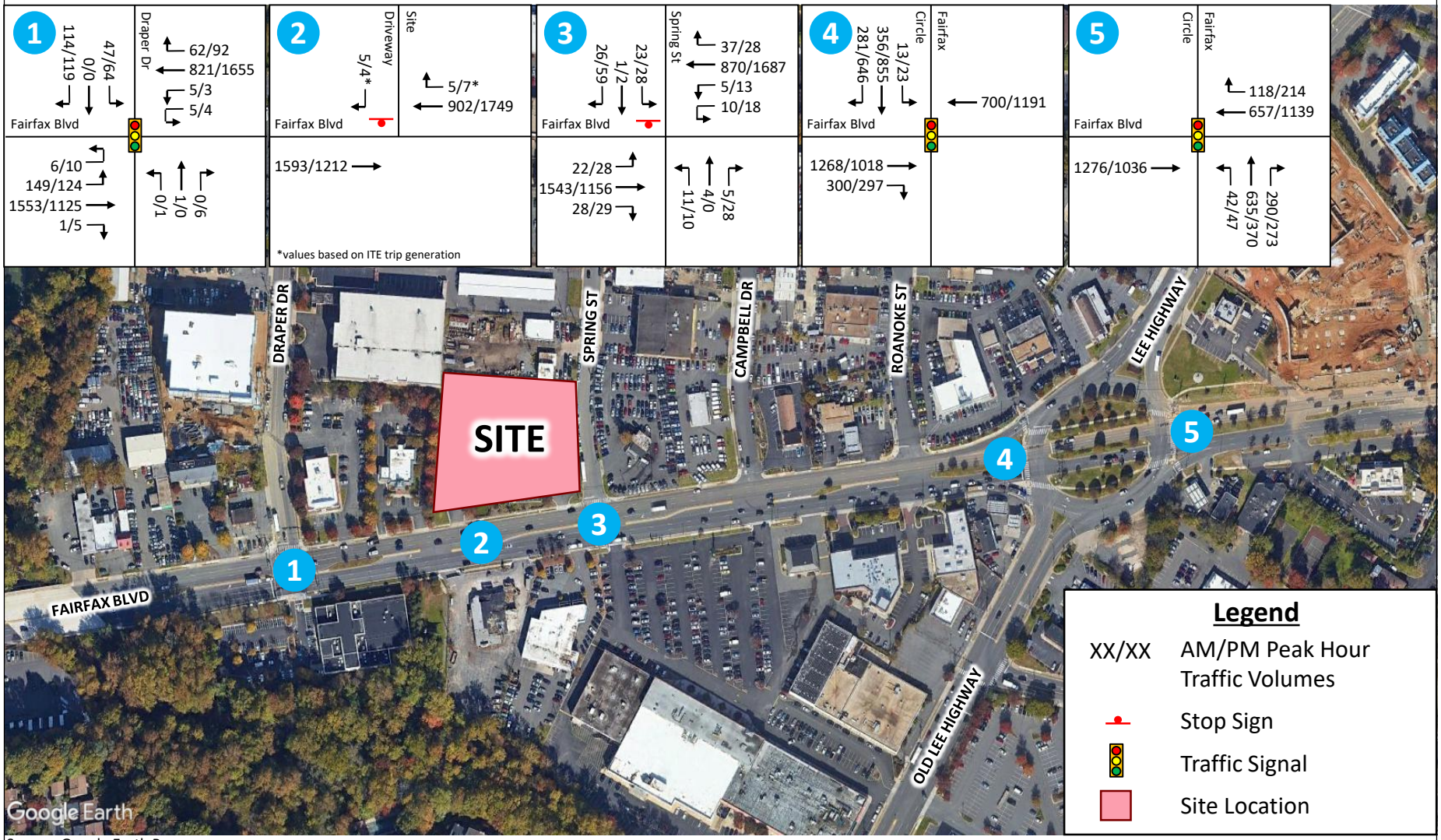
APPROVED AND UNBUILT (PIPELINE) DEVELOPMENTS

One approved and unbuilt (i.e. pipeline) development was identified by City of Fairfax staff for inclusion in the traffic analysis: Scout On The Circle. This development will be located just east of Fairfax Circle, between Lee Highway, Fairfax Boulevard, and Blake Lane. Trips generated by the Scout development were added to the study intersections based on that development's traffic impact analysis. Trips generated by the approved and unbuilt development are shown in Figure 9.

BACKGROUND TRAFFIC VOLUMES

2021 Background peak hour traffic volumes were calculated by adding the 2021 Base peak hour traffic volumes shown in Figure 8 and the trips generated by the approved and unbuilt development shown in Figure 9.

The 2021 Background peak hour traffic volumes are shown in Figure 10.



Source: Google Earth Pro

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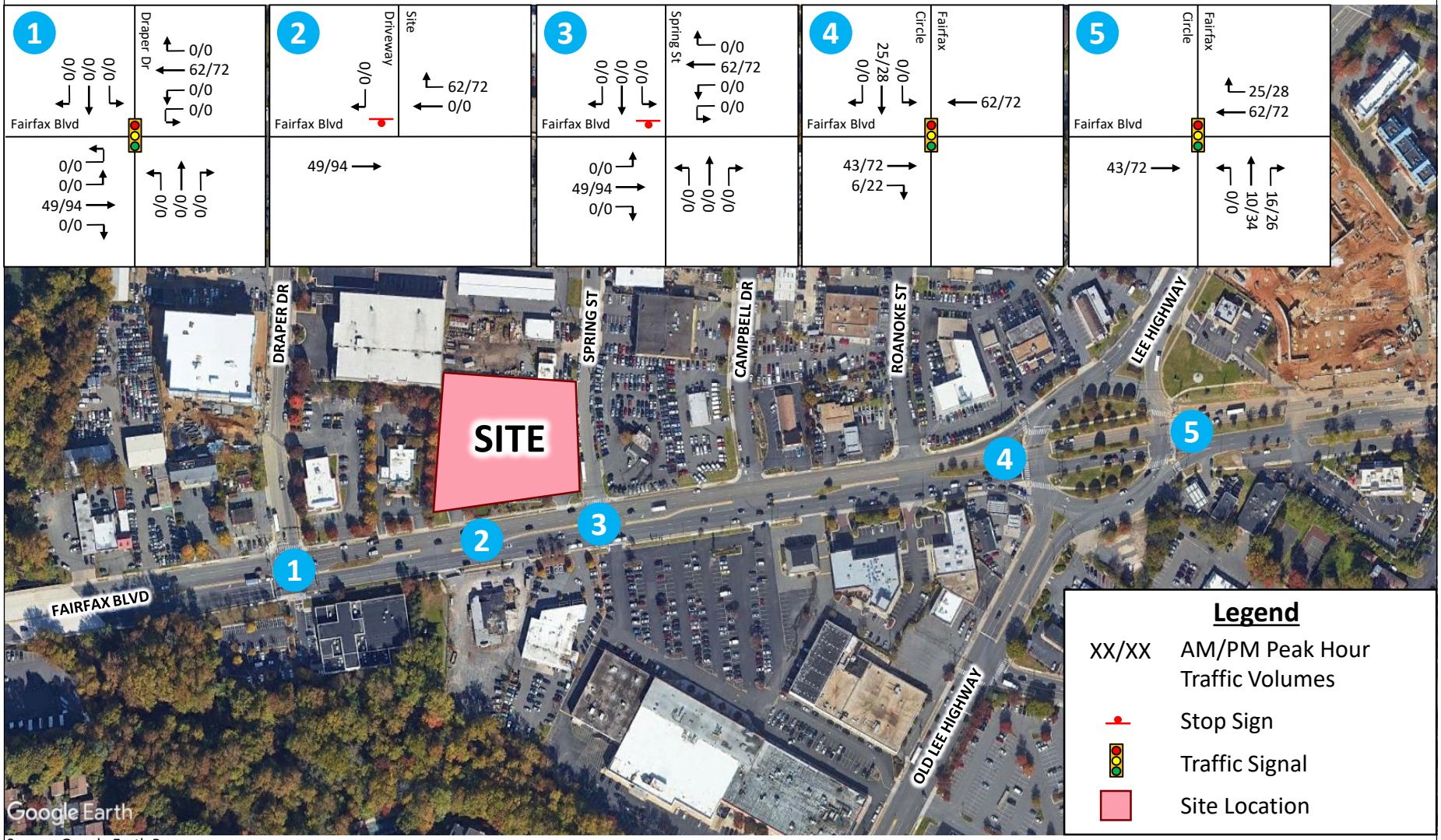
2021 Base Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 8



Source: Google Earth Pro

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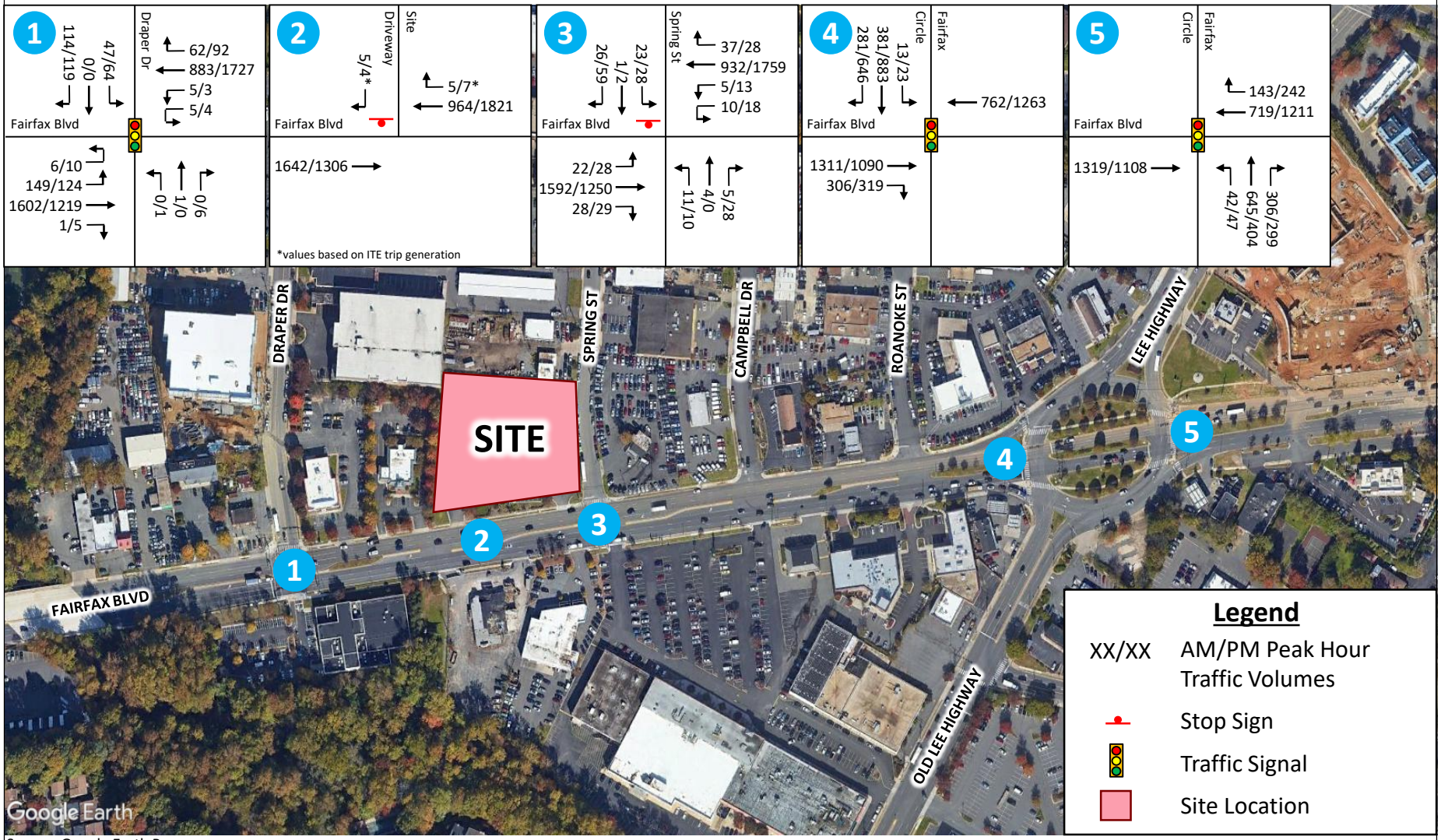
Trips Generated by Approved and Unbuilt Developments

Wawa - 9700 Fairfax Blvd

Figure 9



Source: Google Earth Pro

Kimley»Horn

2021 Background Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 10

TOTAL FUTURE TRAFFIC CONDITIONS

Total future conditions represent future traffic volumes with the full build-out of the proposed Wawa grocery store and fuel station.

SITE TRIP GENERATION

Trips generated by the proposed Wawa were estimated based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition. Land Use Code 320 (Motel) was applied for the existing motel. Land Use Code 960 (Super Convenience Market/Gas Station) was applied for the proposed development. Average rates were used to calculate trip generation estimates for the weekday peak hours and daily trips based on two independent variables:

- vehicle trip ends vs. 1,000 square feet of gross floor area
- vehicle trip ends vs. number of fueling positions

The weekday peak hour and daily trip estimates can vary depending on the independent variable used to calculate them, so the trip estimates based on each independent variable were averaged. This method was agreed upon by City of Fairfax staff.

“Primary” trips represent trips for patrons destined solely for the Wawa. “Pass-by” trips represent patrons who would already be traveling along the roads adjacent to the site that would make an intermediate stop at the proposed development en route to another destination. The ITE Trip Generation Handbook, 3rd Edition does not contain pass-by data for Land Use Code 960, as this land use code was only recently introduced as a part of the ITE Trip Generation Manual, 10th Edition. The Land Use Code 853 – Convenience Market with Gasoline Pumps was selected as the most comparable land use with available pass-by trip percentage values in the Trip Generation Handbook. A pass-by trip percentage of 63 percent during the AM peak hour, 66 percent during the PM peak hour and, and 63 percent for daily trips was applied to trips generated by the Wawa, based on the Trip Generation Handbook. The values of the pass-by percentages show that the majority of trips entering and exiting the site will be pass-by trips, and not primary trips destined solely for the Wawa. The use of the pass-by factor does not reduce the number of site trips entering and exiting the site driveways.

A summary of the peak hour and daily trip generation is shown in Table 1.

Table 1: Site Trip Generation												
ITE Code	Land Use	Setting/ Location	Density		AM Peak Hour			PM Peak Hour			Daily
					Enter	Exit	Total	Enter	Exit	Total	
Existing Land Use											
320	Motel	General Urban/Suburban	55	Rooms	8	13	21	11	10	21	170
Proposed Land Use											
960	Super Convenience Market/ Gas Station	General Urban/Suburban	6049	sq ft	252	251	503	210	209	419	5067
960	Super Convenience Market/ Gas Station	General Urban/Suburban	12	fueling positions	169	168	337	138	138	276	2766
Average of trips based on square footage and fueling positions					*210*	*210*	*420*	*174*	*174*	*348*	*3917*
Pass-by Trips (63% AM/66% PM/63% Daily)					*-132*	*-132*	*-264*	*-115*	*-115*	*-230*	*-2468*
Primary Trips (Total minus Pass-by)					**78**	**78**	**156**	**59**	**59**	**118**	**1449**
Net New Trips (Proposed Land Use minus Existing Land Use)											
Net New Total Trips					*202*	*197*	*399*	*163*	*164*	*327*	*3747*
Net New Primary Trips					***70***	***65***	***135***	***48***	***49***	***97***	***1279***

SITE TRAFFIC DISTRIBUTION AND ASSIGNMENT

Site generated trips were assigned to the study area intersections based on a review of Virginia Department of Transportation (VDOT) historical average daily traffic data for the study area roadways. The distributions are summarized in Table 2 and are shown on the area roadway network in Figure 11. These distributions were reviewed and agreed to in the scoping process with the City.

Table 2: Directional Distribution of Site Generated Traffic	
To/From West on Fairfax Boulevard	40%
To/From East on Fairfax Boulevard	30%
To/From South on Old Lee Highway	10%
To/From North on Lee Highway	20%

The site pass-by trip distribution was based on ease of access along the path to the drivers' ultimate intended destination. Because left-turns onto Fairfax Boulevard from Spring Street currently experience heavy delay during the AM and PM peak hours, it was assumed that 80% of pass-by traffic would consist of westbound vehicles on Fairfax Boulevard, which can more easily turn right-in and right-out. The remaining 20% of pass-by traffic would consist of eastbound vehicles on Fairfax Boulevard.

Source: Google Earth Pro

Kimley»Horn

Directional Distribution of Site Generated Trips

Wawa - 9700 Fairfax Blvd

Figure 11

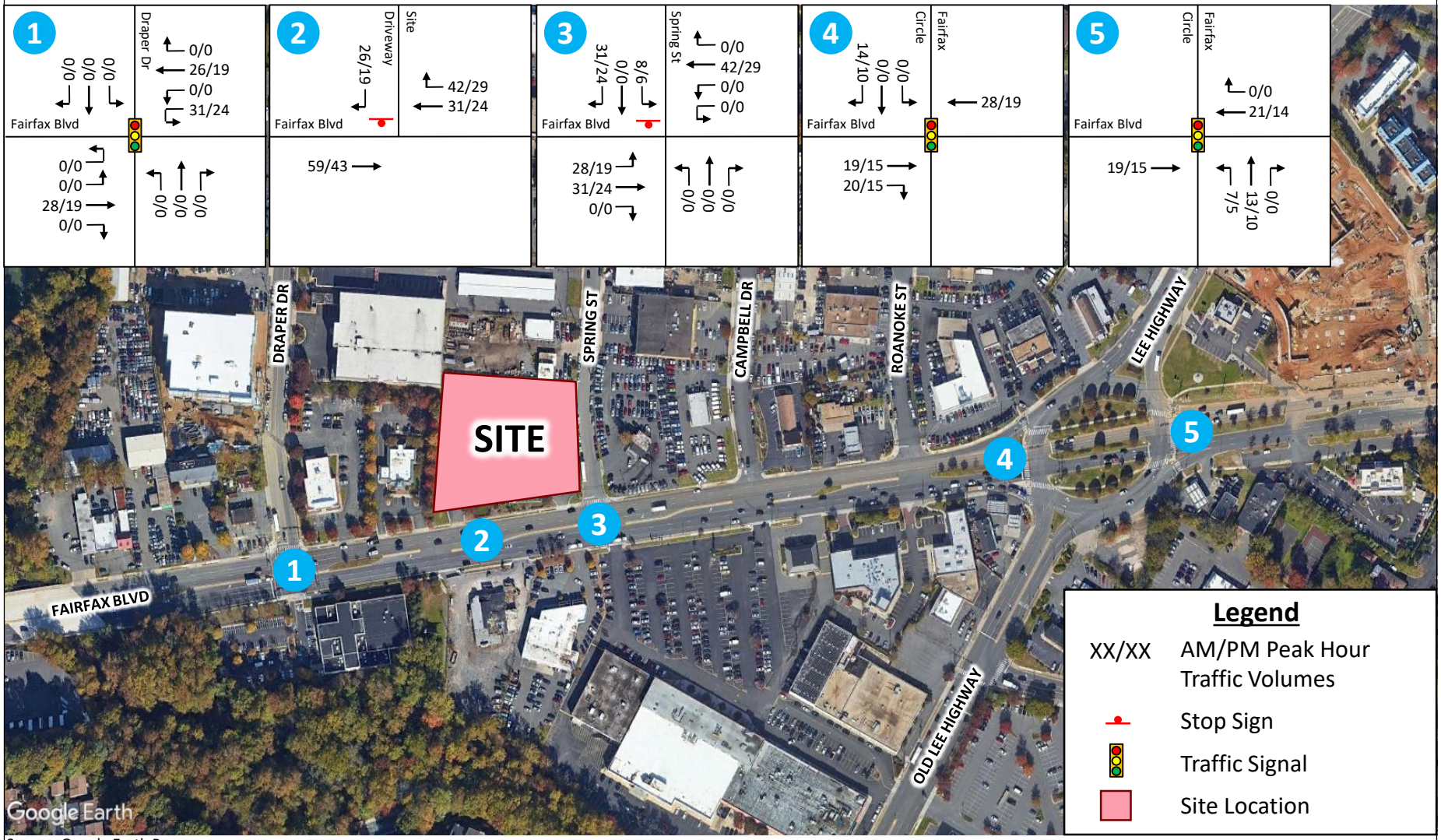
Similarly, turning movements for all trips exiting the site and destined for points east were also based on ease of access to the east. Because left-turns onto Fairfax Boulevard from Spring Street currently experience heavy delay during the AM and PM peak hours, it was assumed that 80% of exiting vehicles destined for points to the east would first turn right onto Fairfax Boulevard from Spring Street, head west towards Draper Drive, then U-turn at the signal at Draper Drive. While some drivers may U-turn at the closer median crossover, it was assumed that all of these drivers would U-turn at Draper Drive to be conservative (i.e. to determine if the signal at Draper Drive has the capacity). The remaining 20% of eastbound exiting traffic would turn left from Spring Street.

Figure 12 and Figure 13 show the assignment of net new primary site generated trips and pass-by trips, respectively. The net new total site generated trips (i.e. the sum of net new primary site generated trips and pass-by trips) is shown in Figure 14.

TOTAL FUTURE TRAFFIC VOLUMES

Total future traffic volumes were calculated by adding the trips generated by the proposed development shown in Figure 14 to the background traffic volumes shown in Figure 10.

The resulting 2021 Total Future peak hour traffic volumes at the study intersections are shown in Figure 15.



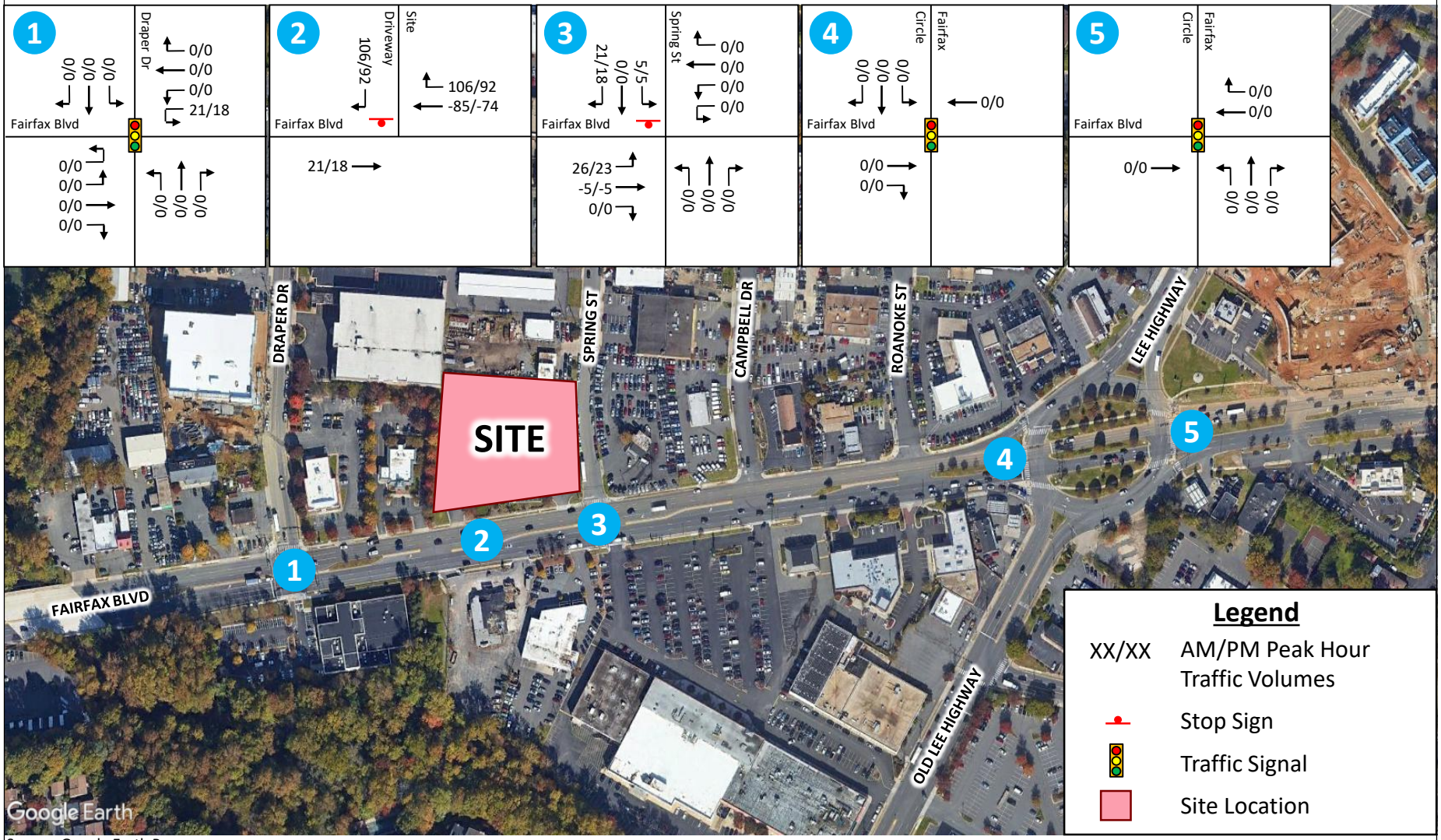
Source: Google Earth Pro

Kimley»Horn

Net New Primary Site Generated Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 12



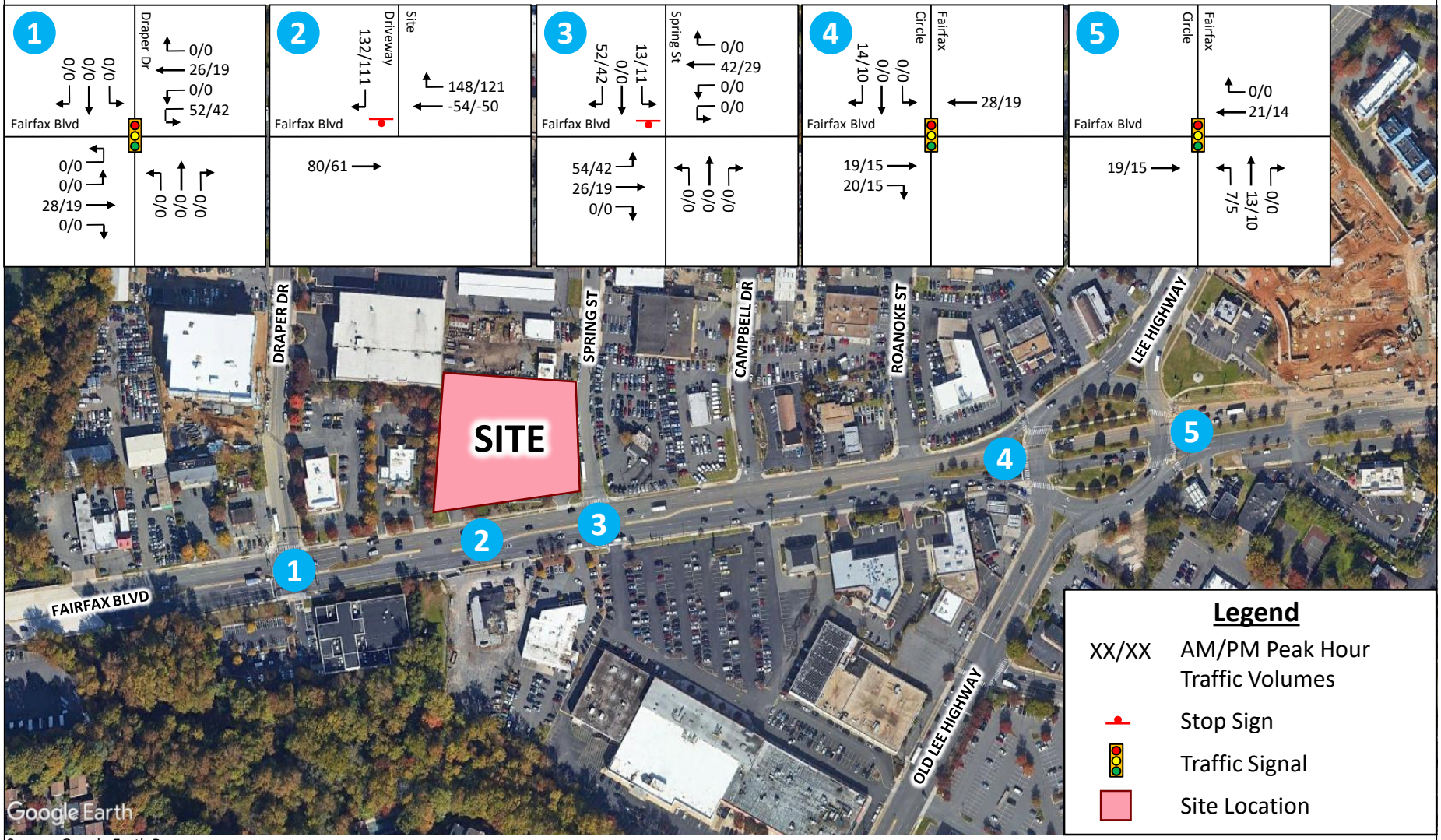
Source: Google Earth Pro

Kimley»Horn

Pass-by Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 13



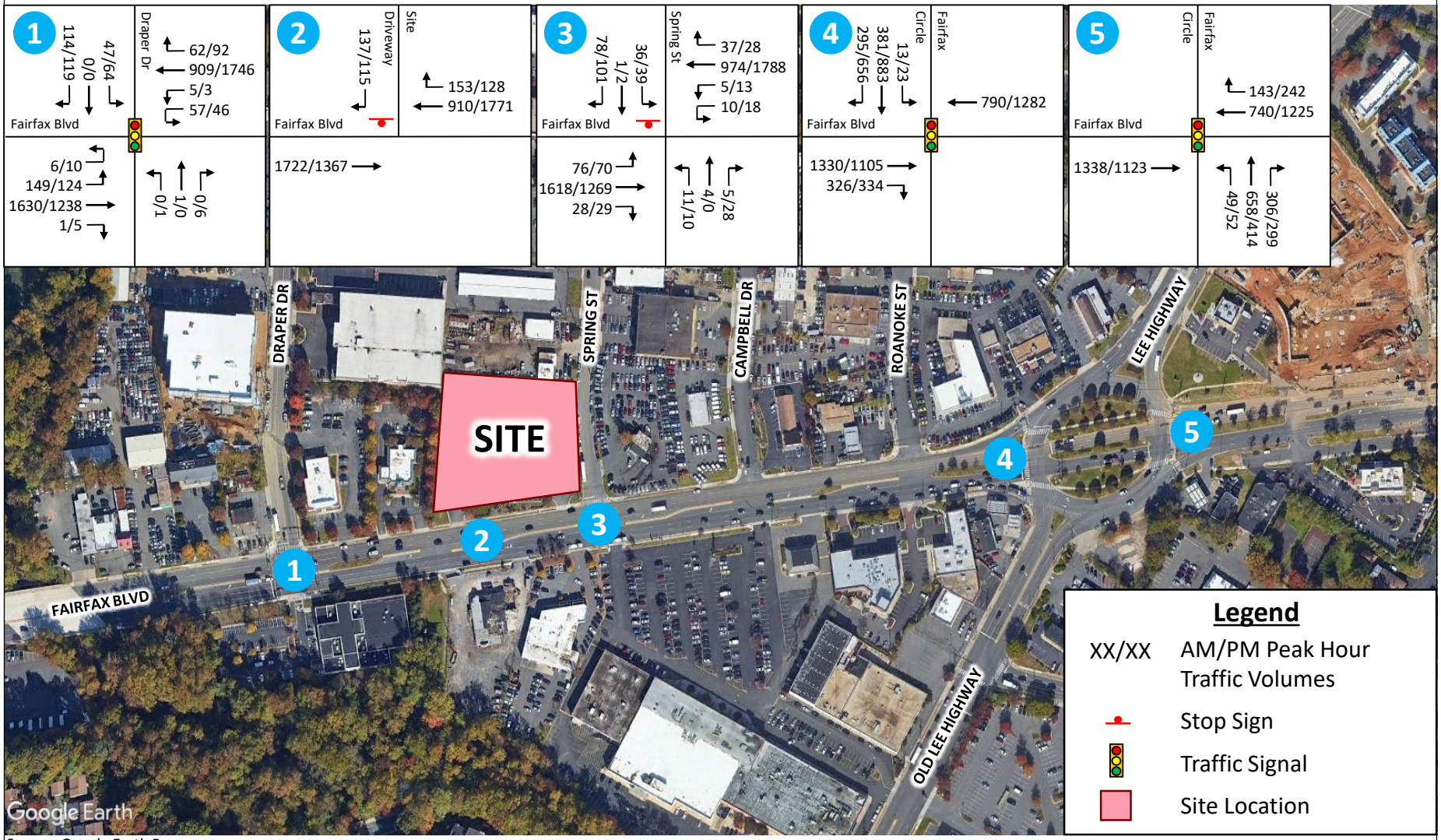
Source: Google Earth Pro

Kimley»Horn

Net New Total Site Generated Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 14



Source: Google Earth Pro

Kimley»Horn

2021 Total Future Peak Hour Traffic Volumes

Wawa - 9700 Fairfax Blvd

Figure 15

TRAFFIC ANALYSIS

ANALYSIS METHODOLOGY

The City of Fairfax directed that intersection capacity analyses be performed for existing, background, and total future traffic volumes for the study intersections. The analyses were performed using the Synchro Software Package (Version 10), which utilizes methodologies contained in the Highway Capacity Manual (6th Edition) for signalized and unsignalized intersections. According to the HCM, capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a fixed time duration. The capacity is described by Level of Service (LOS) to indicate the operating characteristics of a road segment or intersection. LOS is defined as a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The Highway Capacity Manual defines six levels of service, LOS A through LOS F, with A corresponding to the lowest levels of delay and F corresponding to the highest levels of delay.

The ranges of delay for each level of service are shown in Table 3 below.

Table 3: Level of Service Range of Delay

Level of Service (LOS)	Delay per Vehicle (Seconds per Vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 -20	> 10 -15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

The signalized study intersections are maintained by the City of Fairfax. Existing signal timings were provided by the City. These timings were used for the existing, background, and total future analyses.

CAPACITY ANALYSIS

Intersection capacity analyses were conducted for 2019 Existing, 2021 Background, and 2021 Total Future traffic volumes for the study intersections. Peak hour factors and heavy vehicle percentages were the same as those used in the background analyses.

The results of the intersection capacity analyses are summarized in Table 4. Analysis results show the LOS and delay for each movement, approach, and overall intersection. Synchro does not calculate LOS and delay for uncontrolled movements without conflicting movements, therefore, overall intersection LOS and delay for two-way stop-controlled intersections is not shown in the results table since the majority of traffic volume at these intersections does not experience delay.

The Synchro analysis worksheets are contained in Appendix B.

Table 4: Summary of Intersection Capacity Analysis Results Level of Service (Delay [Seconds per Vehicle])							
Intersection		**Existing**		**Background**		**Total Future**	
Approach	**Movement**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
1. Fairfax Boulevard and Draper Drive							
Eastbound (Fairfax Blvd)	Left	A (2.8)	A (8.8)	A (3.0)	B (12.4)	A (3.4)	B (13.1)
	Thru-Right	A (5.2)	A (4.6)	A (5.3)	A (4.8)	A (6.7)	A (5.8)
	Approach	*A (5.0)*	*A (5.0)*	*A (5.1)*	*A (5.5)*	*A (6.4)*	*A (6.6)*
Westbound (Fairfax Blvd)	Left	A (4.2)	A (4.2)	A (4.2)	A (4.6)	A (4.5)	A (4.1)
	Thru-Right	A (5.9)	A (7.8)	A (6.0)	A (8.7)	A (6.1)	A (8.9)
	Approach	*A (5.9)*	*A (7.8)*	*A (6.0)*	*A (8.7)*	*A (6.0)*	*A (8.7)*
Northbound (Harley-Davidson Dealership)	Left-Thru	E (79.8)	F (92.5)	E (79.8)	F (92.4)	E (79.8)	F (92.4)
	Right	A (0.0)	F (93.3)	A (0.0)	F (93.2)	A (0.0)	F (93.2)
	Approach	*E (79.8)*	*F (93.2)*	*E (79.8)*	*F (93.1)*	*E (79.8)*	*F (93.1)*
Southbound (Draper Dr)	Left-Thru	F (85.6)	F (103.9)	F (85.7)	F (104.0)	F (85.7)	F (104.0)
	Right	F (80.5)	F (93.2)	F (80.5)	F (93.2)	F (80.5)	F (93.2)
	Approach	*F (82.0)*	*F (97.0)*	*F (82.1)*	*F (96.9)*	*F (82.1)*	*F (96.9)*
Overall Intersection		***A (9.8)***	***B (12.0)***	***A (9.8)***	***B (12.4)***	***B (10.4)***	***B (12.7)***
2. Fairfax Boulevard and Site Driveway (RI/RO)							
Southbound (Site Driveway)	Right	B (10.1)	B (12.1)	B (10.3)	B (12.4)	B (11.5)	B (14.2)
3. Fairfax Boulevard and Spring Street							
Eastbound (Fairfax Blvd)	Left	A (9.1)	B (10.7)	A (9.2)	B (10.9)	A (9.5)	B (11.8)
Westbound (Fairfax Blvd)	Left	A (9.6)	A (9.0)	A (9.7)	A (9.2)	A (9.7)	A (9.2)
Northbound (Shopping Center Driveways)	Left-Thru-Right	F (104.9)	E (37.6)	F (135.0)	F (51.7)	F (245.0)	F (88.9)
Southbound (Spring St)	Left-Thru-Right	E (42.0)	F (187.3)	F (54.2)	F (323.0)	F (133.8)	F (693.5)
4. Fairfax Boulevard and Fairfax Circle (West)							
Eastbound (Fairfax Blvd)	Thru	B (16.6)	B (10.4)	B (18.1)	B (11.0)	B (19.1)	B (11.1)
	Right	B (13.1)	A (9.3)	B (14.0)	A (9.7)	B (14.9)	A (9.9)
	Approach	*B (15.9)*	*B (10.2)*	*B (17.3)*	*B (10.7)*	*B (18.3)*	*B (10.8)*
Westbound (Fairfax Blvd)	Thru	A (3.7)	A (3.3)	A (3.7)	A (3.4)	A (4.0)	A (3.5)
Southbound (Fairfax Circle)	Left-Thru	E (68.4)	D (43.7)	E (67.8)	D (47.6)	E (66.5)	D (47.6)
	Right	A (0.3)	A (0.8)	A (0.3)	A (0.8)	A (0.3)	A (0.8)
	Approach	*D (39.0)*	*C (25.5)*	*D (39.7)*	*C (28.1)*	*D (38.2)*	*C (28.0)*
Overall Intersection		***B (18.1)***	***B (13.9)***	***B (18.9)***	***B (14.9)***	***B (19.1)***	***B (14.9)***
5. Fairfax Boulevard and Fairfax Circle (East)							
Eastbound (Fairfax Blvd)	Thru	A (2.7)	A (2.8)	A (2.6)	A (2.9)	A (2.6)	A (2.9)
Westbound (Fairfax Blvd)	Thru	B (12.5)	B (11.1)	B (13.6)	B (11.8)	B (14.3)	B (11.9)
	Right	B (10.8)	A (8.5)	B (11.7)	A (8.9)	B (12.2)	A (8.9)
	Approach	*B (12.2)*	*B (10.7)*	*B (13.3)*	*B (11.4)*	*B (14.0)*	*B (11.4)*
Northbound (Fairfax Circle)	Left-Thru	F (82.4)	C (30.8)	F (81.7)	C (31.1)	F (80.8)	C (31.3)
	Right	A (0.3)	A (0.2)	A (0.3)	A (0.3)	A (0.3)	A (0.3)
	Approach	*E (57.7)*	*B (18.7)*	*E (56.6)*	*B (18.8)*	*E (56.5)*	*B (19.2)*
Overall Intersection		***C (22.8)***	***A (9.9)***	***C (22.4)***	***B (10.2)***	***C (22.6)***	***B (10.4)***

Existing Conditions

The results show that under 2019 Existing conditions, most of the study area intersections operate with acceptable levels of service. All signalized intersections operate with LOS D or better. Additionally, all movements and approaches operate with LOS D or better, with the following exceptions:

- Fairfax Boulevard and Draper Drive
    - Northbound approach: operates at LOS E and F in the AM and PM peak hours, respectively
    - Southbound approach: operates at LOS F in both the AM and PM peak hours
- Fairfax Boulevard and Spring Street
    - Northbound approach: operates at LOS F and E in the AM and PM peak hours, respectively
    - Southbound approach: operates at LOS E and F in the AM and PM peak hours, respectively
- Fairfax Boulevard and Fairfax Circle (West)
    - Southbound left-thru movement: operates at LOS E in the AM peak hour
- Fairfax Boulevard and Fairfax Circle (East)
    - Northbound left-thru movement: operates at LOS F in the AM peak hour

At the intersection of Fairfax Boulevard and Spring Street, drivers experience significant delays in the northbound direction in the AM peak hour (104.9 seconds) and in the southbound direction in the PM peak hour (178.3 seconds). Longer delays are typical at stop-controlled approaches of unsignalized intersections along high-volume corridors like Fairfax Boulevard.

Background Conditions

Under 2021 Background conditions, all movement, approach, and overall intersection levels of service remain the same as under existing conditions, with the following exceptions:

- Fairfax Boulevard and Draper Drive
    - Eastbound left: level of service drops from LOS A to LOS B in the PM peak hour
- Fairfax Boulevard and Spring Street
    - Northbound approach: level of service drops from LOS E to LOS F in the PM peak hour
    - Southbound approach: level of service drops from LOS E to LOS F in the AM peak hour

Most intersections operate with similar delay as under existing conditions. The only notable increases in delay occurred at the intersection of Fairfax Boulevard and Spring Street for the northbound and southbound approaches. In the northbound direction, the delay increased to 135.0 seconds in the AM peak hour. In the southbound direction, the delay increased to 323.0 seconds in the PM peak hour.

It should be noted that Synchro is conservative with gap acceptance calculations for left turns from stop-controlled approaches, so the delay is likely not as high as calculated. Additionally, it is unlikely that drivers will wait a long period of time to make a left-turn maneuver if there are alternative routes available. Drivers will typically find a balance between waiting at the intersection and finding an alternative route if delays are excessive.

Total Future Conditions

Under 2021 Total Future conditions, all movement, approach, and overall intersection levels of service remain the same as under background conditions, with the following exception:

- Fairfax Boulevard and Draper Drive
    - Overall intersection: level of service drops from LOS A to LOS B in the AM peak hour

Most intersections operate with similar delay as under background conditions. The only notable increases in delay occurred at the intersection of Fairfax Boulevard and Spring Street for the northbound and southbound approaches. In the northbound direction, the delay increased to 245.0 seconds in the AM peak hour. In the southbound direction, the delay increased to 693.5 seconds in the PM peak hour.

As noted previously, Synchro is conservative with gap acceptance calculations for left turns from stop-controlled approaches, so realistically, the delay is likely not as high as calculated. Additionally, it is unlikely that drivers will wait a long period of time to make a left-turn maneuver since there are alternative routes available.

It is anticipated that eastbound motorists will find a balance between waiting out the delays to make a left-turn at the southbound approach of Spring Street and utilizing an alternate route, such as instead turning right from Spring Street onto Fairfax Boulevard and making a U-turn at Draper Drive, or turning right on Draper Drive and then heading eastbound on Kingsbridge Drive.

The analysis results show that the westbound left-turn movement continues to operate at LOS A with the additional assumed U-turn traffic generated by the development. The results also show that the westbound left-turn/U-turn movement has additional capacity should a higher percentage of drivers choose to make this maneuver to avoid making a left-turn from Spring Street onto Fairfax Boulevard.

QUEUING ANALYSIS

At the request of City staff, 95th percentile vehicle queue lengths were calculated for each of the movements at each of the study intersections. The analyses were performed using the Synchro Software Package (Version 10).

Vehicle queues were analyzed for 2019 Existing, 2021 Background, and 2021 Total Future conditions. The results of the queueing analysis are summarized in Table 5. The Synchro analysis worksheets are contained in Appendix B.

Table 5: Summary of 95th Percentile Queuing Analysis Results (Queue Length in Feet)							
Intersection		**Existing**		**Background**		**Total Future**	
Approach	**Effective Storage[1]**	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
1. Fairfax Boulevard and Draper Drive							
Eastbound Left	190	64	56	65	90	65	93
Eastbound Thru-Right	-	303	202	325	228	348	241
Westbound Left	50	8	6	8	6	31	24
Westbound Thru-Right	-	170	431	188	490	195	501
Northbound Left-Thru	-	7	9	7	9	7	9
Northbound Right	-	0	0	0	0	0	0
Southbound Left-Thru	-	98	148	100	149	100	149
Southbound Right	200	63	72	64	72	64	72
2. Fairfax Boulevard and Site Driveway (RI/RO)							
Southbound Right	-	0	0	0	0	20	23
3. Fairfax Boulevard and Spring Street							
Northbound Left-Thru-Right	-	33	25	40	35	55	53
Eastbound Left	130	3	3	3	3	8	10
Westbound Left	110	3	3	3	3	3	3
Southbound Left-Thru-Right	-	35	148	45	188	155	350
4. Fairfax Boulevard and Fairfax Circle (West)							
Eastbound Thru	-	602	213	670	240	704	245
Eastbound Right	-	254	128	273	141	302	149
Westbound Thru	-	54	44	56	46	62	48
Southbound Left-Thru	-	292	#397	316	#433	312	#433
Southbound Right	-	0	0	0	0	0	0
5. Fairfax Boulevard and Fairfax Circle (East)							
Eastbound Thru	-	40	m33	34	m35	34	m35
Westbound Thru	-	256	255	298	287	317	291
Westbound Right	200	98	92	122	107	125	107
Northbound Left-Thru	-	573	168	591	186	602	192
Northbound Right	-	0	0	0	0	0	0

[1] - Existing storage lengths based on City Synchro files
- 95th percentile volume exceeds capacity, queue may be longer
m - Volume for 95th percentile queue is metered by upstream signal

The queuing analysis results show that most movements will experience similar queueing under total future conditions as compared to background conditions. The increase in queue length will be less than the equivalent of one vehicle (which is assumed to be 25 feet for this traffic analysis) for all movements with the following exceptions:

- Fairfax Boulevard and Spring Street
    - Southbound left-through-right movement queue increases from 45 feet to 155 feet (110-foot increase) in the AM peak hour, and from 188 feet to 350 feet in the PM peak hour (162-foot increase) in the PM peak hour
    - As noted in the capacity analysis section of this report, Synchro is conservative with gap acceptance calculations for left turns from stop-controlled approaches, so realistically, the queue length is likely not as long as calculated. Additionally, it is unlikely that drivers will wait a long period of time to make a left-turn maneuver since there are alternative routes available.
- Fairfax Boulevard and Fairfax Circle (West)
    - Eastbound through movement queue increases from 670 feet to 704 feet (34-foot increase) during the AM peak hour
    - Eastbound right-turn movement queue increases from 273 feet to 302 feet (29-foot increase) during the AM peak hour
    - The increase in queuing for these movements is less than the equivalent of 1.5 vehicles, and is relatively minor

At the intersection of Fairfax Boulevard and Fairfax Circle (West), the volume for the southbound left-thru movement at the intersection exceeds capacity under existing conditions. The queueing for this movement increases under background conditions but does not increase further under total future conditions.

The analysis also shows that the left and right-turn lanes for all approaches at all study intersections will accommodate 95th percentile queue lengths under total future conditions during both the AM and PM peak hours. In particular, the queuing for the westbound left-turn lane can accommodate the additional U-turn traffic generated by the proposed development.

CONCLUSIONS

The capacity analysis results show that under 2021 Total Future conditions, all signalized intersections operate with overall LOS D or better. Increases in delay due to development traffic are minimal with the exception of the intersection of Fairfax Boulevard and Spring Street.

At the intersection of Fairfax Boulevard and Spring Street, the analysis showed that there are heavier delays for the northbound and southbound approaches under *existing* conditions. Due to the east-west traffic flows along Fairfax Boulevard during the peak hours, additional delays are experienced for vehicles turning from the minor streets. It is noted that these delays are not uncommon or unexpected for unsignalized approaches to busier corridors. The delay increases under background and total future conditions.

It is anticipated that eastbound motorists will find a balance between waiting out the delays to make a left-turn at the southbound approach of Spring Street during peak traffic periods and utilizing an alternate route, such as instead turning right from Spring Street onto Fairfax Boulevard and making a U-turn at Draper Drive or turning right on Draper Drive.

The capacity and queueing analyses showed that the westbound left-turn/U-turn movement at the intersection of Fairfax Boulevard and Draper Drive has the capacity to accommodate additional U-turns if drivers choose that as an alternative route.

The queuing analysis results show that most movements will experience similar queueing under total future conditions as compared to background conditions, except for the southbound movement at the intersection of Fairfax Boulevard and Spring Street. All turn lanes will be able to accommodate 95th percentile queues, including the westbound left-turn lane at the intersection of Fairfax Boulevard and Draper Drive which is expected to serve additional U-turn traffic generated by the proposed development.

The majority of the trips generated by the site are pass-by trips, meaning that these vehicles would be on the roadway network even without the development of the site. Therefore, most of the trips generated by the site *do not increase the traffic volume* on the area roadways.

The site access and vehicular circulation along the area roadways will operate in a safe and efficient manner with the addition of the Wawa.

APPENDIX A

TRAFFIC COUNT DATA

National Data & Surveying Services

Intersection Turning Movement Count

Location: Draper Dr & Lee HWY/Fairfax Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-001
Date: 5/2/2019

Total

NS/EW Streets:	Draper Dr				Draper Dr				Lee HWY/Fairfax Blvd				Lee HWY/Fairfax Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	7	0	6	0	19	519	0	2	0	81	16	0	650
6:45 AM	0	0	0	0	14	0	3	0	31	470	0	1	0	99	18	1	637
7:00 AM	0	0	0	0	9	0	13	0	21	451	0	0	0	140	14	2	650
7:15 AM	0	0	1	0	11	0	13	0	44	450	0	1	1	158	14	0	693
7:30 AM	0	0	0	0	10	0	25	0	34	370	0	1	0	137	11	1	589
7:45 AM	0	0	0	0	17	0	27	0	41	388	0	4	0	191	11	0	679
8:00 AM	0	0	0	0	11	0	17	0	42	379	0	2	1	186	16	2	656
8:15 AM	0	0	0	0	16	0	25	0	37	361	0	0	0	214	17	1	671
8:30 AM	0	1	0	0	9	0	31	0	44	389	0	0	3	199	15	2	693
8:45 AM	0	0	0	0	10	0	39	0	23	393	1	4	1	206	13	0	690
9:00 AM	0	0	0	0	16	0	14	0	27	319	2	2	1	194	8	2	585
9:15 AM	0	0	0	0	16	0	14	0	19	313	6	2	0	201	12	1	584
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	146	0	227	0	382	4802	9	19	7	2006	165	12	7777
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	39.14%	0.00%	60.86%	0.00%	7.33%	92.13%	0.17%	0.36%	0.32%	91.60%	7.53%	0.55%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	1	0	0	46	0	112	0	146	1522	1	6	5	805	61	5	2710
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.719	0.000	0.718	0.000	0.830	0.968	0.250	0.375	0.417	0.940	0.897	0.625	0.978
	0.250				0.806				0.967				0.944				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	2	0	10	0	28	0	26	198	4	8	1	484	15	0	776
4:15 PM	1	0	3	0	6	0	20	0	27	227	3	0	1	446	12	0	746
4:30 PM	2	5	1	0	17	3	44	0	22	273	0	2	2	413	27	0	811
4:45 PM	0	0	3	0	15	0	27	0	31	299	2	2	0	408	24	3	814
5:00 PM	0	0	0	0	24	0	30	0	31	266	1	4	0	395	21	0	772
5:15 PM	1	0	3	0	15	0	33	0	33	279	2	2	1	400	22	0	791
5:30 PM	0	0	0	0	9	0	27	0	27	259	0	2	2	419	23	1	769
5:45 PM	0	0	1	0	20	0	48	0	22	261	0	2	0	415	20	1	790
6:00 PM	2	0	2	0	16	0	49	0	26	253	0	1	0	405	29	3	786
6:15 PM	2	0	0	0	17	0	57	0	34	221	0	0	1	423	21	0	776
6:30 PM	0	0	2	0	10	0	52	0	25	235	1	0	2	383	17	1	728
6:45 PM	2	1	0	0	15	0	36	0	28	204	2	0	1	379	15	0	683
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	6	17	0	174	3	451	0	332	2975	15	23	11	4970	246	9	9242
APPROACH %'s :	30.30%	18.18%	51.52%	0.00%	27.71%	0.48%	71.82%	0.00%	9.93%	88.94%	0.45%	0.69%	0.21%	94.92%	4.70%	0.17%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	3	5	7	0	71	3	134	0	117	1117	5	10	3	1616	94	3	3188
PEAK HR FACTOR :	0.375	0.250	0.583	0.000	0.740	0.250	0.761	0.000	0.886	0.934	0.625	0.625	0.375	0.978	0.870	0.250	0.979
	0.469				0.813				0.935				0.971				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Draper Dr & Lee HWY/Fairfax Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-001
Date: 5/2/2019

Cars

NS/EW Streets:	Draper Dr				Draper Dr				Lee HWY/Fairfax Blvd				Lee HWY/Fairfax Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	5	0	5	0	18	513	0	2	0	72	14	0	629
6:45 AM	0	0	0	0	14	0	3	0	27	461	0	1	0	91	16	1	614
7:00 AM	0	0	0	0	8	0	10	0	20	438	0	0	0	134	13	2	625
7:15 AM	0	0	0	0	9	0	12	0	43	434	0	1	0	151	14	0	664
7:30 AM	0	0	0	0	8	0	24	0	32	354	0	1	0	130	9	1	559
7:45 AM	0	0	0	0	14	0	25	0	41	380	0	4	0	180	10	0	654
8:00 AM	0	0	0	0	9	0	17	0	40	367	0	2	1	182	16	2	636
8:15 AM	0	0	0	0	14	0	22	0	36	345	0	0	0	201	16	1	635
8:30 AM	0	1	0	0	9	0	28	0	42	378	0	0	3	183	14	2	660
8:45 AM	0	0	0	0	9	0	38	0	20	383	1	4	1	199	12	0	667
9:00 AM	0	0	0	0	13	0	13	0	25	298	2	2	1	185	7	2	548
9:15 AM	0	0	0	0	15	0	13	0	18	300	6	2	0	194	12	1	561
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	127	0	210	0	362	4651	9	19	6	1902	153	12	7452
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	37.69%	0.00%	62.31%	0.00%	7.18%	92.26%	0.18%	0.38%	0.29%	91.75%	7.38%	0.58%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	1	0	0	41	0	105	0	138	1473	1	6	5	765	58	5	2598
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.732	0.000	0.691	0.000	0.821	0.961	0.250	0.375	0.417	0.951	0.906	0.625	0.974
	0.250				0.777				0.963				0.955				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	2	0	8	0	25	0	23	190	4	7	1	473	13	0	746
4:15 PM	1	0	3	0	6	0	20	0	25	220	3	0	1	433	10	0	722
4:30 PM	2	5	1	0	17	3	42	0	22	270	0	2	2	400	23	0	789
4:45 PM	0	0	2	0	15	0	26	0	31	293	1	2	0	402	22	3	797
5:00 PM	0	0	0	0	21	0	29	0	29	263	1	4	0	390	20	0	757
5:15 PM	1	0	3	0	14	0	32	0	31	274	2	2	1	397	21	0	778
5:30 PM	0	0	0	0	9	0	27	0	27	251	0	2	2	411	22	1	752
5:45 PM	0	0	1	0	19	0	47	0	22	250	0	2	0	409	20	1	771
6:00 PM	2	0	2	0	16	0	47	0	26	250	0	1	0	398	28	3	773
6:15 PM	2	0	0	0	17	0	57	0	31	217	0	0	1	421	20	0	766
6:30 PM	0	0	2	0	10	0	51	0	24	229	1	0	2	379	16	1	715
6:45 PM	2	1	0	0	15	0	36	0	27	203	2	0	1	377	14	0	678
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	6	16	0	167	3	439	0	318	2910	14	22	11	4890	229	9	9044
APPROACH %'s :	31.25%	18.75%	50.00%	0.00%	27.42%	0.49%	72.09%	0.00%	9.74%	89.15%	0.43%	0.67%	0.21%	95.15%	4.46%	0.18%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	3	5	6	0	67	3	129	0	113	1100	4	10	3	1589	86	3	3121
PEAK HR FACTOR :	0.38	0.250	0.500	0.000	0.798	0.250	0.768	0.000	0.911	0.939	0.500	0.625	0.375	0.988	0.935	0.250	0.979
	0.438				0.802				0.938				0.984				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Draper Dr & Lee HWY/Fairfax Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-001
Date: 5/2/2019

HT

NS/EW Streets:	Draper Dr				Draper Dr				Lee HWY/Fairfax Blvd				Lee HWY/Fairfax Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	2	0	1	0	1	6	0	0	0	9	2	0	21
6:45 AM	0	0	0	0	0	0	0	0	4	9	0	0	0	8	2	0	23
7:00 AM	0	0	0	0	1	0	3	0	1	13	0	0	0	6	1	0	25
7:15 AM	0	0	1	0	2	0	1	0	1	16	0	0	1	7	0	0	29
7:30 AM	0	0	0	0	2	0	1	0	2	16	0	0	0	7	2	0	30
7:45 AM	0	0	0	0	3	0	2	0	0	8	0	0	0	11	1	0	25
8:00 AM	0	0	0	0	2	0	0	0	2	12	0	0	0	4	0	0	20
8:15 AM	0	0	0	0	2	0	3	0	1	16	0	0	0	13	1	0	36
8:30 AM	0	0	0	0	0	0	3	0	2	11	0	0	0	16	1	0	33
8:45 AM	0	0	0	0	1	0	1	0	3	10	0	0	0	7	1	0	23
9:00 AM	0	0	0	0	3	0	1	0	2	21	0	0	0	9	1	0	37
9:15 AM	0	0	0	0	1	0	1	0	1	13	0	0	0	7	0	0	23
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	19	0	17	0	20	151	0	0	1	104	12	0	325
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	52.78%	0.00%	47.22%	0.00%	11.70%	88.30%	0.00%	0.00%	0.85%	88.89%	10.26%	0.00%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	5	0	7	0	8	49	0	0	0	40	3	0	112
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.625	0.000	0.583	0.000	0.667	0.766	0.000	0.000	0.000	0.625	0.750	0.000	0.778
					0.600				0.838				0.632				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	2	0	3	0	3	8	0	1	0	11	2	0	30
4:15 PM	0	0	0	0	0	0	0	0	2	7	0	0	0	13	2	0	24
4:30 PM	0	0	0	0	0	0	2	0	0	3	0	0	0	13	4	0	22
4:45 PM	0	0	1	0	0	0	1	0	0	6	1	0	0	6	2	0	17
5:00 PM	0	0	0	0	3	0	1	0	2	3	0	0	0	5	1	0	15
5:15 PM	0	0	0	0	1	0	1	0	2	5	0	0	0	3	1	0	13
5:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	8	1	0	17
5:45 PM	0	0	0	0	1	0	1	0	0	11	0	0	0	6	0	0	19
6:00 PM	0	0	0	0	0	0	2	0	0	3	0	0	0	7	1	0	13
6:15 PM	0	0	0	0	0	0	0	0	3	4	0	0	0	2	1	0	10
6:30 PM	0	0	0	0	0	0	1	0	1	6	0	0	0	4	1	0	13
6:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	1	0	7	0	12	0	14	65	1	1	0	80	17	0	198
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	36.84%	0.00%	63.16%	0.00%	17.28%	80.25%	1.23%	1.23%	0.00%	82.47%	17.53%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	0	1	0	4	0	5	0	4	17	1	0	0	27	8	0	67
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.333	0.000	0.625	0.000	0.500	0.708	0.250	0.000	0.000	0.519	0.500	0.000	0.761
		0.250				0.563				0.786				0.515			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Draper Dr & Lee HWY/Fairfax Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-001
Date: 5/2/2019

Bikes

NS/EW Streets:	Draper Dr				Draper Dr				Lee HWY/Fairfax Blvd				Lee HWY/Fairfax Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	5
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	
PEAK HR :	**08:00 AM - 09:00 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	1	1	0	0	0	2	0	0	5
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Draper Dr & Lee HWY/Fairfax Blvd
City: Fairfax

Project ID: 19-11056-001
Date: 5/2/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Draper Dr		Draper Dr		Lee HWY/Fairfax Blvd		Lee HWY/Fairfax Blvd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	1	1	0	0	0	0	2
7:15 AM	1	0	1	0	0	0	0	0	2
7:30 AM	1	0	0	0	0	0	3	0	4
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	2	0	0	0	0	0	2
8:15 AM	1	0	0	0	0	0	1	0	2
8:30 AM	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
9:00 AM	0	1	0	0	0	0	0	0	1
9:15 AM	0	2	0	0	0	0	0	1	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	3	3	4	2	0	0	4	1	17
APPROACH %'s :	50.00%	50.00%	66.67%	33.33%			80.00%	20.00%	
PEAK HR :	**08:00 AM - 09:00 AM**								TOTAL
PEAK HR VOL :	1	0	2	1	0	0	1	0	5
PEAK HR FACTOR :	0.250		0.250	0.250			0.250		0.625
	0.250		0.375				0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	1	1	0	0	0	0	0	0	2
5:00 PM	1	1	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	1	2	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	2	0	0	0	0	0	0	0	2
6:15 PM	1	2	2	0	0	0	0	1	6
6:30 PM	0	1	0	4	0	0	0	0	5
6:45 PM	0	0	1	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	5	6	4	6	0	0	0	1	22
APPROACH %'s :	45.45%	54.55%	40.00%	60.00%			0.00%	100.00%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	2	2	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.500	0.500							0.500
	0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring St & Fairfax Blvd
City: Fairfax
Control: 1-Way Stop (SB)

Project ID: 19-11055-003
Date: 5/2/2019

Total

NS/EW Streets:	Spring St					Spring St					Fairfax Blvd					Fairfax Blvd								
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
6:30 AM	0	0	0	0	0	3	0	9	0	0	6	512	3	0	0	4	88	5	0	0	0	0	0	630
6:45 AM	3	0	0	0	0	0	0	14	0	0	5	475	4	0	0	2	108	7	1	0	0	0	0	619
7:00 AM	0	1	0	0	0	1	0	7	0	0	9	447	4	0	0	1	156	12	0	0	0	0	0	638
7:15 AM	1	1	0	0	0	2	0	9	0	0	9	458	5	0	0	7	164	7	0	0	0	0	0	663
7:30 AM	4	0	1	0	0	4	0	1	0	0	5	372	7	0	0	1	145	7	0	0	0	0	0	547
7:45 AM	0	0	1	0	0	4	0	5	0	0	3	393	8	0	0	2	196	9	4	1	0	0	0	626
8:00 AM	5	1	1	0	0	6	0	11	0	0	9	373	8	0	0	0	197	13	0	0	0	0	0	624
8:15 AM	3	2	2	0	0	3	0	7	0	0	6	366	9	0	0	2	222	7	2	0	0	0	0	631
8:30 AM	1	0	0	0	0	6	1	4	0	0	4	389	5	0	0	2	211	9	3	0	0	0	0	635
8:45 AM	2	1	1	0	0	8	0	3	0	0	3	385	5	0	0	1	223	7	5	0	0	0	1	645
9:00 AM	3	0	3	0	0	7	0	8	0	1	2	334	2	0	1	3	203	11	2	0	0	0	1	581
9:15 AM	1	0	5	0	0	5	0	3	0	0	10	324	6	0	0	2	216	12	2	0	0	0	0	586
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	23	6	14	0	0	49	1	81	0	1	71	4828	66	0	1	27	2129	106	19	1	0	0	2	7425
APPROACH %'s :	53.49%	13.95%	32.56%	0.00%	0.00%	37.12%	0.76%	61.36%	0.00%	0.76%	1.43%	97.22%	1.33%	0.00%	0.02%	1.18%	93.30%	4.65%	0.83%	0.04%	0.00%	0.00%	100.00%	
PEAK HR :	06:30 AM - 07:30 AM																							TOTAL
PEAK HR VOL :	4	2	0	0	0	6	0	39	0	0	29	1892	16	0	0	14	516	31	1	0	0	0	0	2550
PEAK HR FACTOR :	0.333	0.500	0.000	0.000	0.000	0.500	0.000	0.696	0.000	0.000	0.806	0.924	0.800	0.000	0.000	0.500	0.787	0.646	0.250	0.000	0.000	0.000	0.000	0.962
			0.500					0.804					0.929					0.789						

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
4:00 PM	3	0	5	0	0	7	0	8	0	0	3	214	10	1	0	5	486	14	1	1	1	0	2	761
4:15 PM	0	0	4	0	0	11	0	14	0	0	3	228	3	0	0	2	447	10	1	1	1	0	2	727
4:30 PM	1	0	4	0	0	9	0	13	0	0	1	287	2	0	1	3	436	8	1	0	0	0	2	768
4:45 PM	2	0	9	0	0	5	0	12	0	0	7	292	9	1	1	2	422	8	6	0	0	0	0	776
5:00 PM	1	0	6	0	0	6	1	21	0	0	5	289	6	0	1	4	387	9	6	1	0	0	1	744
5:15 PM	2	0	8	0	0	9	1	14	0	0	8	288	3	0	0	2	416	9	2	0	0	0	2	764
5:30 PM	5	0	1	0	0	7	0	11	0	0	6	264	8	0	0	4	429	1	4	0	0	0	0	740
5:45 PM	3	1	3	0	0	3	1	9	0	0	6	270	12	0	1	4	435	11	2	0	0	0	0	761
6:00 PM	7	0	5	0	0	8	0	14	0	0	4	259	13	0	1	9	421	11	4	0	0	0	3	759
6:15 PM	6	0	7	0	0	2	1	5	0	0	5	231	6	0	0	11	437	4	6	0	0	1	4	726
6:30 PM	4	2	6	0	0	8	0	10	0	0	4	231	15	0	1	12	398	3	3	0	0	0	1	698
6:45 PM	2	1	8	0	0	11	3	23	0	0	12	202	10	0	1	11	372	22	4	0	0	0	0	682
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	36	4	66	0	0	86	7	154	0	0	64	3055	97	2	7	69	5086	110	40	3	2	1	17	8906
APPROACH %'s :	33.96%	3.77%	62.26%	0.00%	0.00%	34.82%	2.83%	62.35%	0.00%	0.00%	1.98%	94.73%	3.01%	0.06%	0.22%	1.30%	95.82%	2.07%	0.75%	0.06%	10.00%	5.00%	85.00%	
PEAK HR :	04:30 PM - 05:30 PM																							TOTAL
PEAK HR VOL :	6	0	27	0	0	29	2	60	0	0	21	1156	20	1	3	11	1661	34	15	1	0	0	5	3052
PEAK HR FACTOR :	0.750	0.000	0.750	0.000	0.000	0.806	0.500	0.714	0.000	0.000	0.656	0.990	0.556	0.250	0.750	0.688	0.952	0.944	0.625	0.250	0.000	0.000	0.625	0.983
			0.750					0.813					0.969					0.961				0.625		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring St & Fairfax Blvd
City: Fairfax
Control: 1-Way Stop (SB)

Project ID: 19-11055-003
Date: 5/2/2019

Cars

NS/EW Streets:	Spring St					Spring St					Fairfax Blvd					Fairfax Blvd								
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
6:30 AM	0	0	0	0	0	2	0	7	0	0	6	504	3	0	0	3	79	5	0	0	0	0	0	609
6:45 AM	3	0	0	0	0	0	0	12	0	0	5	466	4	0	0	2	100	6	1	0	0	0	0	599
7:00 AM	0	1	0	0	0	1	0	5	0	0	9	434	3	0	0	1	151	12	0	0	0	0	0	617
7:15 AM	1	1	0	0	0	2	0	7	0	0	9	439	4	0	0	6	159	6	0	0	0	0	0	634
7:30 AM	4	0	0	0	0	3	0	0	0	0	5	355	7	0	0	1	136	7	0	0	0	0	0	518
7:45 AM	0	0	0	0	0	2	0	5	0	0	3	383	7	0	0	2	184	8	4	1	0	0	0	599
8:00 AM	5	1	1	0	0	3	0	11	0	0	9	358	8	0	0	0	192	12	0	0	0	0	0	600
8:15 AM	3	2	2	0	0	3	0	6	0	0	6	348	9	0	0	1	210	7	2	0	0	0	0	599
8:30 AM	1	0	0	0	0	6	1	4	0	0	4	380	5	0	0	2	195	9	3	0	0	0	0	610
8:45 AM	1	1	1	0	0	8	0	3	0	0	3	373	5	0	0	1	216	7	5	0	0	0	1	625
9:00 AM	3	0	2	0	0	6	0	7	0	1	2	311	1	0	1	3	194	10	2	0	0	0	1	544
9:15 AM	1	0	4	0	0	5	0	3	0	0	10	311	5	0	0	2	209	10	2	0	0	0	0	562
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	22	6	10	0	0	41	1	70	0	1	71	4662	61	0	1	24	2025	99	19	1	0	0	2	7116
APPROACH %'s :	57.89%	15.79%	26.32%	0.00%	0.00%	36.28%	0.88%	61.95%	0.00%	0.88%	1.48%	97.23%	1.27%	0.00%	0.02%	1.11%	93.40%	4.57%	0.88%	0.05%	0.00%	0.00%	100.00%	
PEAK HR :	06:30 AM - 07:30 AM																							TOTAL
PEAK HR VOL :	4	2	0	0	0	5	0	31	0	0	29	1843	14	0	0	12	489	29	1	0	0	0	0	2459
PEAK HR FACTOR :	0.33	0.500	0.000	0.000	0.000	0.625	0.000	0.646	0.000	0.000	0.806	0.914	0.875	0.000	0.000	0.500	0.769	0.604	0.250	0.000	0.000	0.000	0.000	0.970
			0.500					0.750					0.919					0.776						

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
4:00 PM	3	0	5	0	0	7	0	6	0	0	3	205	10	1	0	5	476	14	1	1	1	0	2	740
4:15 PM	0	0	4	0	0	11	0	14	0	0	3	220	3	0	0	2	431	9	1	1	1	0	2	702
4:30 PM	1	0	4	0	0	8	0	13	0	0	1	284	2	0	1	3	420	6	1	0	0	0	2	746
4:45 PM	2	0	8	0	0	5	0	12	0	0	6	286	9	1	1	2	413	8	6	0	0	0	0	759
5:00 PM	1	0	6	0	0	6	1	20	0	0	4	284	6	0	1	4	382	9	6	1	0	0	1	732
5:15 PM	2	0	8	0	0	9	1	14	0	0	8	282	3	0	0	2	412	9	2	0	0	0	2	754
5:30 PM	5	0	1	0	0	7	0	10	0	0	6	256	8	0	0	4	421	1	4	0	0	0	0	723
5:45 PM	3	1	3	0	0	3	1	9	0	0	6	258	12	0	1	4	428	10	2	0	0	0	0	741
6:00 PM	7	0	5	0	0	8	0	14	0	0	4	257	13	0	1	9	413	10	4	0	0	0	3	748
6:15 PM	6	0	7	0	0	2	1	5	0	0	5	226	6	0	0	11	435	4	6	0	0	1	4	719
6:30 PM	4	2	6	0	0	8	0	10	0	0	4	225	15	0	1	12	393	3	3	0	0	0	1	687
6:45 PM	2	1	8	0	0	11	3	23	0	0	12	201	10	0	1	11	369	22	4	0	0	0	0	678
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	36	4	65	0	0	85	7	150	0	0	62	2984	97	2	7	69	4993	105	40	3	2	1	17	8729
APPROACH %'s :	34.29%	3.81%	61.90%	0.00%	0.00%	35.12%	2.89%	61.98%	0.00%	0.00%	1.97%	94.67%	3.08%	0.06%	0.22%	1.32%	95.83%	2.02%	0.77%	0.06%	10.00%	5.00%	85.00%	
PEAK HR :	04:30 PM - 05:30 PM																							TOTAL
PEAK HR VOL :	6	0	26	0	0	28	2	59	0	0	19	1136	20	1	3	11	1627	32	15	1	0	0	5	2991
PEAK HR FACTOR :	0.75	0.000	0.813	0.000	0.000	0.778	0.500	0.738	0.000	0.000	0.594	0.993	0.556	0.250	0.750	0.688	0.968	0.889	0.625	0.250	0.000	0.000	0.625	0.985
			0.800					0.824					0.973					0.980				0.625		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring St & Fairfax Blvd
City: Fairfax
Control: 1-Way Stop (SB)

Project ID: 19-11055-003
Date: 5/2/2019

HT

NS/EW Streets:	Spring St					Spring St					Fairfax Blvd					Fairfax Blvd								
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
6:30 AM	0	0	0	0	0	1	0	2	0	0	0	8	0	0	0	1	9	0	0	0	0	0	0	21
6:45 AM	0	0	0	0	0	0	0	2	0	0	0	9	0	0	0	0	8	1	0	0	0	0	0	20
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	13	1	0	0	0	5	0	0	0	0	0	0	21
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	19	1	0	0	1	5	1	0	0	0	0	0	29
7:30 AM	0	0	1	0	0	1	0	1	0	0	0	17	0	0	0	0	9	0	0	0	0	0	0	29
7:45 AM	0	0	1	0	0	2	0	0	0	0	0	10	1	0	0	0	12	1	0	0	0	0	0	27
8:00 AM	0	0	0	0	0	3	0	0	0	0	0	15	0	0	0	0	5	1	0	0	0	0	0	24
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	18	0	0	0	1	12	0	0	0	0	0	0	32
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	16	0	0	0	0	0	0	25
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	7	0	0	0	0	0	0	20
9:00 AM	0	0	1	0	0	1	0	1	0	0	0	23	1	0	0	0	9	1	0	0	0	0	0	37
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	13	1	0	0	0	7	2	0	0	0	0	0	24
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	1	0	4	0	0	8	0	11	0	0	0	166	5	0	0	3	104	7	0	0	0	0	0	309
APPROACH %'s :	20.00%	0.00%	80.00%	0.00%	0.00%	42.11%	0.00%	57.89%	0.00%	0.00%	0.00%	97.08%	2.92%	0.00%	0.00%	2.63%	91.23%	6.14%	0.00%	0.00%				
PEAK HR :	**06:30 AM - 07:30 AM**																							TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	8	0	0	0	49	2	0	0	2	27	2	0	0	0	0	0	91
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.000	1.000	0.000	0.000	0.000	0.645	0.500	0.000	0.000	0.500	0.750	0.500	0.000	0.000	0.000	0.000	0.000	0.784
								0.750					0.638					0.775						

PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	9	0	0	0	0	10	0	0	0	0	0	0	21
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	16	1	0	0	0	0	0	25
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	16	2	0	0	0	0	0	22
4:45 PM	0	0	1	0	0	0	0	0	0	0	1	6	0	0	0	0	9	0	0	0	0	0	0	17
5:00 PM	0	0	0	0	0	0	0	1	0	0	1	5	0	0	0	0	5	0	0	0	0	0	0	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	4	0	0	0	0	0	0	10
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	17
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	7	1	0	0	0	0	0	20
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	8	1	0	0	0	0	0	11
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	2	0	0	0	0	0	0	7
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	5	0	0	0	0	0	0	11
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	4
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	1	0	4	0	0	2	71	0	0	0	0	93	5	0	0	0	0	0	177
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	20.00%	0.00%	80.00%	0.00%	0.00%	2.74%	97.26%	0.00%	0.00%	0.00%	0.00%	94.90%	5.10%	0.00%	0.00%				
PEAK HR :	**04:30 PM - 05:30 PM**																							TOTAL
PEAK HR VOL :	0	0	1	0	0	1	0	1	0	0	2	20	0	0	0	0	34	2	0	0	0	0	0	61
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.500	0.833	0.000	0.000	0.000	0.000	0.531	0.250	0.000	0.000	0.000	0.000	0.000	0.693
			0.250					0.500					0.786					0.500						

National Data & Surveying Services

Intersection Turning Movement Count

Location: Spring St & Fairfax Blvd
City: Fairfax
Control: 1-Way Stop (SB)

Project ID: 19-11055-003
Date: 5/2/2019

Bikes

AM

NS/EW Streets:	Spring St					Spring St					Fairfax Blvd					Fairfax Blvd								
	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	0	0	0	0	0	0	6
APPROACH %'s :											0.00%	66.67%	33.33%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%				
PEAK HR :	06:30 AM - 07:30 AM																							TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
													0.250											

PM

	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					NORTHBOUND2			
	0	1	0	0	0	0	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	NU2	SL	ST	SR	SU	ST2	EL	ET	ER	EU	ER2	WL	WT	WR	WU	WL2	N2L2	N2T2	N2R2	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%						0.00%	100.00%	0.00%	0.00%	0.00%				
PEAK HR :	04:30 PM - 05:30 PM																							TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
			0.250																					

National Data & Surveying Services

Location: Spring St & Fairfax Blvd
City: Fairfax

Intersection Turning Movement Count

Project ID: 19-11055-003
Date: 3/2/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Spring St		Spring St		Fairfax Blvd		Fairfax Blvd				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
6:30 AM	1	0	0	0	2	0	0	0	0	0	3
6:45 AM	2	0	0	0	1	0	0	0	0	0	3
7:00 AM	0	0	1	0	0	0	0	0	1	0	2
7:15 AM	0	1	3	2	4	0	1	1	1	1	14
7:30 AM	0	0	0	0	11	0	0	0	1	0	12
7:45 AM	3	0	2	0	0	0	0	1	1	0	7
8:00 AM	0	1	2	0	1	6	0	2	2	0	14
8:15 AM	1	0	0	0	0	0	0	3	0	0	4
8:30 AM	3	0	0	1	0	1	0	1	0	1	7
8:45 AM	4	1	0	0	0	0	0	0	0	0	5
9:00 AM	1	2	1	0	1	0	1	0	1	0	7
9:15 AM	1	2	0	0	0	1	0	0	0	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	16	7	9	3	20	8	2	8	7	2	82
APPROACH %'s :	69.57%	30.43%	75.00%	25.00%	71.43%	28.57%	20.00%	80.00%	77.78%	22.22%	
PEAK HR :	**06:30 AM - 07:30 AM**										TOTAL
PEAK HR VOL :	3	1	4	2	7	0	1	1	2	1	22
PEAK HR FACTOR :	0.375	0.250	0.333	0.250	0.438		0.250	0.250	0.500	0.250	0.393
	0.500		0.300		0.438		0.250		0.375		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	1	0	0	1	0	0	0	2
5:00 PM	1	1	0	0	0	1	0	0	0	0	3
5:15 PM	0	2	1	1	0	1	0	0	1	0	6
5:30 PM	0	2	0	1	1	0	0	0	1	2	7
5:45 PM	0	2	0	0	0	0	0	0	0	0	2
6:00 PM	2	0	0	0	0	0	0	0	0	0	2
6:15 PM	1	3	2	1	0	0	0	3	4	3	17
6:30 PM	0	2	0	1	0	0	0	0	1	3	7
6:45 PM	1	0	0	0	0	0	0	1	2	0	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	6	12	3	5	1	2	1	5	9	8	52
APPROACH %'s :	33.33%	66.67%	37.50%	62.50%	33.33%	66.67%	16.67%	83.33%	52.94%	47.06%	
PEAK HR :	**04:30 PM - 05:30 PM**										TOTAL
PEAK HR VOL :	2	3	1	2	0	2	1	0	1	0	12
PEAK HR FACTOR :	0.500	0.375	0.250	0.500		0.500	0.250		0.250		0.500
	0.625		0.375		0.500		0.250		0.250		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-004
Date: 5/2/2019

Total

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd				Fairfax Blvd/Arlington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	4	33	36	0	0	457	38	0	0	78	0	0	646
6:45 AM	0	0	0	0	5	50	38	0	0	393	58	0	0	104	0	0	648
7:00 AM	0	0	0	0	2	47	51	0	0	381	74	0	0	125	0	0	680
7:15 AM	0	0	0	0	6	54	47	0	0	336	86	0	0	135	0	0	664
7:30 AM	0	0	0	0	5	71	55	0	0	344	55	0	0	109	0	0	639
7:45 AM	0	0	0	0	3	93	61	0	0	337	66	0	0	158	0	0	718
8:00 AM	0	0	0	0	4	91	51	0	0	294	54	0	0	168	0	0	662
8:15 AM	0	0	0	0	2	83	68	0	0	323	87	0	0	181	0	0	744
8:30 AM	0	0	0	0	5	80	76	0	0	285	77	0	0	165	0	0	688
8:45 AM	0	0	0	0	2	95	80	0	0	341	76	0	0	172	0	0	766
9:00 AM	0	0	0	0	5	88	58	0	0	298	76	0	0	178	0	0	703
9:15 AM	0	0	0	0	0	77	63	0	0	273	64	0	0	173	0	0	650
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	43	862	684	0	0	4062	811	0	0	1746	0	0	8208
APPROACH %'s :					2.71%	54.25%	43.05%	0.00%	0.00%	83.36%	16.64%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**08:15 AM - 09:15 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	14	346	282	0	0	1247	316	0	0	696	0	0	2901
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.700	0.911	0.881	0.000	0.000	0.914	0.908	0.000	0.000	0.961	0.000	0.000	0.947
					0.907				0.937				0.961				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	135	190	0	0	180	43	0	0	304	0	0	856
4:15 PM	0	0	0	0	5	144	158	0	0	199	55	0	0	326	0	0	887
4:30 PM	0	0	0	0	9	179	163	0	0	222	66	0	0	275	0	0	914
4:45 PM	0	0	0	0	9	182	157	0	0	276	73	0	0	314	0	0	1011
5:00 PM	0	0	0	0	5	217	139	0	0	238	78	0	0	255	0	0	932
5:15 PM	0	0	0	0	5	212	166	0	0	251	69	0	0	300	0	0	1003
5:30 PM	0	0	0	0	4	227	171	0	0	233	71	0	0	299	0	0	1005
5:45 PM	0	0	0	0	4	202	180	0	0	238	56	0	0	270	0	0	950
6:00 PM	0	0	0	0	9	215	192	0	0	221	65	0	0	269	0	0	971
6:15 PM	0	0	0	0	4	238	169	0	0	190	66	0	0	299	0	0	966
6:30 PM	0	0	0	0	3	199	150	0	0	216	55	0	0	287	0	0	910
6:45 PM	0	0	0	0	3	222	167	0	0	184	57	0	0	238	0	0	871
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	64	2372	2002	0	0	2648	754	0	0	3436	0	0	11276
APPROACH %'s :					1.44%	53.45%	45.11%	0.00%	0.00%	77.84%	22.16%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	23	838	633	0	0	998	291	0	0	1168	0	0	3951
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.639	0.923	0.925	0.000	0.000	0.904	0.933	0.000	0.000	0.930	0.000	0.000	0.977
					0.929				0.923				0.930				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-004
Date: 5/2/2019

Cars

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd				Fairfax Blvd/Arlington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	4	29	34	0	0	451	36	0	0	70	0	0	624
6:45 AM	0	0	0	0	5	46	35	0	0	386	55	0	0	97	0	0	624
7:00 AM	0	0	0	0	2	44	50	0	0	376	68	0	0	122	0	0	662
7:15 AM	0	0	0	0	6	50	44	0	0	326	74	0	0	131	0	0	631
7:30 AM	0	0	0	0	5	68	50	0	0	332	51	0	0	106	0	0	612
7:45 AM	0	0	0	0	3	89	58	0	0	325	63	0	0	147	0	0	685
8:00 AM	0	0	0	0	4	87	50	0	0	287	45	0	0	164	0	0	637
8:15 AM	0	0	0	0	1	77	63	0	0	309	77	0	0	173	0	0	700
8:30 AM	0	0	0	0	4	77	67	0	0	281	74	0	0	160	0	0	663
8:45 AM	0	0	0	0	1	91	79	0	0	331	71	0	0	163	0	0	736
9:00 AM	0	0	0	0	5	83	54	0	0	278	74	0	0	173	0	0	667
9:15 AM	0	0	0	0	0	71	60	0	0	261	60	0	0	169	0	0	621
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	40	812	644	0	0	3943	748	0	0	1675	0	0	7862
APPROACH %'s :					2.67%	54.28%	43.05%	0.00%	0.00%	84.05%	15.95%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**08:15 AM - 09:15 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	11	328	263	0	0	1199	296	0	0	669	0	0	2766
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.550	0.901	0.832	0.000	0.000	0.906	0.961	0.000	0.000	0.967	0.000	0.000	0.940
					0.880				0.930				0.967				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	3	132	181	0	0	173	41	0	0	301	0	0	831
4:15 PM	0	0	0	0	5	141	152	0	0	194	54	0	0	316	0	0	862
4:30 PM	0	0	0	0	9	171	158	0	0	219	66	0	0	263	0	0	886
4:45 PM	0	0	0	0	9	175	152	0	0	273	71	0	0	310	0	0	990
5:00 PM	0	0	0	0	5	215	137	0	0	232	77	0	0	252	0	0	918
5:15 PM	0	0	0	0	5	208	164	0	0	246	68	0	0	297	0	0	988
5:30 PM	0	0	0	0	4	225	169	0	0	227	69	0	0	293	0	0	987
5:45 PM	0	0	0	0	4	199	177	0	0	230	52	0	0	266	0	0	928
6:00 PM	0	0	0	0	9	211	190	0	0	219	65	0	0	261	0	0	955
6:15 PM	0	0	0	0	4	232	169	0	0	186	65	0	0	298	0	0	954
6:30 PM	0	0	0	0	3	192	149	0	0	210	55	0	0	282	0	0	891
6:45 PM	0	0	0	0	3	217	167	0	0	183	57	0	0	236	0	0	863
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	63	2318	1965	0	0	2592	740	0	0	3375	0	0	11053
APPROACH %'s :					1.45%	53.34%	45.21%	0.00%	0.00%	77.79%	22.21%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	23	823	622	0	0	978	285	0	0	1152	0	0	3883
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.639	0.914	0.920	0.000	0.000	0.896	0.925	0.000	0.000	0.929	0.000	0.000	0.981
					0.922				0.918				0.929				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-004
Date: 5/2/2019

HT

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd				Fairfax Blvd/Arlington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	4	2	0	0	6	2	0	0	8	0	0	22
6:45 AM	0	0	0	0	0	4	3	0	0	7	3	0	0	7	0	0	24
7:00 AM	0	0	0	0	0	3	1	0	0	5	6	0	0	3	0	0	18
7:15 AM	0	0	0	0	0	4	3	0	0	10	12	0	0	4	0	0	33
7:30 AM	0	0	0	0	0	3	5	0	0	12	4	0	0	3	0	0	27
7:45 AM	0	0	0	0	0	4	3	0	0	12	3	0	0	11	0	0	33
8:00 AM	0	0	0	0	0	4	1	0	0	7	9	0	0	4	0	0	25
8:15 AM	0	0	0	0	1	6	5	0	0	14	10	0	0	8	0	0	44
8:30 AM	0	0	0	0	1	3	9	0	0	4	3	0	0	5	0	0	25
8:45 AM	0	0	0	0	1	4	1	0	0	10	5	0	0	9	0	0	30
9:00 AM	0	0	0	0	0	5	4	0	0	20	2	0	0	5	0	0	36
9:15 AM	0	0	0	0	0	6	3	0	0	12	4	0	0	4	0	0	29
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	3	50	40	0	0	119	63	0	0	71	0	0	346
APPROACH %'s :					3.23%	53.76%	43.01%	0.00%	0.00%	65.38%	34.62%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**08:15 AM - 09:15 AM**																TOTAL
PEAK HR VOL :	0	0	0	0	3	18	19	0	0	48	20	0	0	27	0	0	135
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.750	0.750	0.528	0.000	0.000	0.600	0.500	0.000	0.000	0.750	0.000	0.000	0.767
						0.769				0.708				0.750			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	1	3	9	0	0	7	2	0	0	3	0	0	25
4:15 PM	0	0	0	0	0	3	6	0	0	5	1	0	0	10	0	0	25
4:30 PM	0	0	0	0	0	8	5	0	0	3	0	0	0	12	0	0	28
4:45 PM	0	0	0	0	0	7	5	0	0	3	2	0	0	4	0	0	21
5:00 PM	0	0	0	0	0	2	2	0	0	6	1	0	0	3	0	0	14
5:15 PM	0	0	0	0	0	4	2	0	0	5	1	0	0	3	0	0	15
5:30 PM	0	0	0	0	0	2	2	0	0	6	2	0	0	6	0	0	18
5:45 PM	0	0	0	0	0	3	3	0	0	8	4	0	0	4	0	0	22
6:00 PM	0	0	0	0	0	4	2	0	0	2	0	0	0	8	0	0	16
6:15 PM	0	0	0	0	0	6	0	0	0	4	1	0	0	1	0	0	12
6:30 PM	0	0	0	0	0	7	1	0	0	6	0	0	0	5	0	0	19
6:45 PM	0	0	0	0	0	5	0	0	0	1	0	0	0	2	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	54	37	0	0	56	14	0	0	61	0	0	223
APPROACH %'s :					1.09%	58.70%	40.22%	0.00%	0.00%	80.00%	20.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	0	15	11	0	0	20	6	0	0	16	0	0	68
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.536	0.550	0.000	0.000	0.833	0.750	0.000	0.000	0.667	0.000	0.000	0.810
						0.542				0.813				0.667			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd
City: Fairfax
Control: Signalized

Project ID: 19-11055-004
Date: 5/2/2019

Bikes

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd				Fairfax Blvd/Arlington Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	**08:15 AM - 09:15 AM**																TOTAL
PEAK HR VOL :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.250				0.250												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	2	1	0	0	2	1	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	5	0	0	0	1	0	0	0	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000
	0.250				0.750												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd
City: Fairfax

19-11055-004
5/2/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Old Lee Hwy		Old Lee Hwy		Fairfax Blvd/Arlington Blvd		Fairfax Blvd/Arlington Blvd						
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2 CUT OUT		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
6:30 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
6:45 AM	0	0	0	0	0	0	1	2	2	0	1	2	8
7:00 AM	0	0	1	0	0	0	0	2	2	0	1	2	8
7:15 AM	0	0	0	1	0	0	0	2	2	0	0	3	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	1	1	0	1	4
8:30 AM	0	0	1	0	0	0	0	1	0	0	1	1	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
9:15 AM	0	0	0	0	0	0	0	1	1	1	0	1	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	2	1	0	0	2	9	10	2	4	10	40
APPROACH %'s :			66.67%	33.33%			18.18%	81.82%	83.33%	16.67%	28.57%	71.43%	
PEAK HR :	08:15 AM - 09:15 AM												TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	2	3	1	1	2	10
PEAK HR FACTOR :			0.250					0.500	0.375	0.250	0.250	0.500	0.625
			0.250				0.500		0.500		0.375		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2 CUT OUT		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	1	0	0	0	1	2	1	1	2	1	10
4:45 PM	0	0	0	0	0	0	1	1	0	0	1	0	3
5:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	2
5:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	3
5:30 PM	0	0	0	0	0	0	0	7	6	0	0	7	20
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	1	0	0	0	0	0	1	1	0	1	1	1	6
6:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
6:30 PM	0	1	0	0	0	0	0	1	2	1	0	1	6
6:45 PM	0	1	0	0	0	0	0	1	0	1	0	1	4
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	1	3	2	0	0	0	4	13	10	6	6	11	56
APPROACH %'s :	25.00%	75.00%	100.00%	0.00%			23.53%	76.47%	62.50%	37.50%	35.29%	64.71%	
PEAK HR :	04:45 PM - 05:45 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	8	7	2	2	7	28
PEAK HR FACTOR :							0.500	0.286	0.292	0.500	0.500	0.250	0.350
							0.357		0.375		0.321		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd E dwy
City: Fairfax
Control: Signalized

Project ID: 19-11055-005
Date: 5/2/2019

Total

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd E dwy				Fairfax Blvd/Arlington Blvd E dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	6	66	70	0	0	0	0	0	0	465	0	0	0	72	12	0	691
6:45 AM	1	110	80	0	0	0	0	0	0	392	0	0	0	101	13	0	697
7:00 AM	6	121	98	0	0	0	0	0	0	381	0	0	0	121	17	0	744
7:15 AM	3	133	83	0	0	0	0	0	0	346	0	0	0	131	13	0	709
7:30 AM	1	126	83	0	0	0	0	0	0	340	0	0	0	105	29	0	684
7:45 AM	9	158	75	0	0	0	0	0	0	350	0	0	0	153	34	0	779
8:00 AM	12	165	75	0	0	0	0	0	0	297	0	0	0	158	20	0	727
8:15 AM	12	194	72	0	0	0	0	0	0	331	0	0	0	166	29	0	804
8:30 AM	12	162	66	0	0	0	0	0	0	286	0	0	0	155	29	0	710
8:45 AM	5	101	71	0	0	0	0	0	0	337	0	0	0	165	38	0	717
9:00 AM	5	112	69	0	0	0	0	0	0	306	0	0	0	172	24	0	688
9:15 AM	12	79	60	0	0	0	0	0	0	277	0	0	0	160	27	0	615
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	84	1527	902	0	0	0	0	0	0	4108	0	0	0	1659	285	0	8565
APPROACH %'s :	3.34%	60.76%	35.89%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	85.34%	14.66%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	45	679	288	0	0	0	0	0	0	1264	0	0	0	632	112	0	3020
PEAK HR FACTOR :	0.938	0.875	0.960	0.000	0.000	0.000	0.000	0.000	0.000	0.903	0.000	0.000	0.000	0.952	0.824	0.000	0.939
	0.910								0.903				0.954				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	16	84	67	0	0	0	0	0	0	185	0	0	0	286	24	0	662
4:15 PM	10	68	55	0	0	0	0	0	0	203	0	0	0	319	14	0	669
4:30 PM	19	92	65	0	0	0	0	0	0	234	0	0	0	262	35	0	707
4:45 PM	12	74	59	0	0	0	0	0	0	280	0	0	0	299	60	0	784
5:00 PM	15	114	83	0	0	0	0	0	0	246	0	0	0	241	44	0	743
5:15 PM	11	76	67	0	0	0	0	0	0	257	0	0	0	284	59	0	754
5:30 PM	8	99	59	0	0	0	0	0	0	233	0	0	0	293	47	0	739
5:45 PM	8	64	58	0	0	0	0	0	0	247	0	0	0	256	34	0	667
6:00 PM	9	96	55	0	0	0	0	0	0	227	0	0	0	263	51	0	701
6:15 PM	20	80	66	0	0	0	0	0	0	196	0	0	0	273	42	0	677
6:30 PM	18	64	49	0	0	0	0	0	0	215	0	0	0	271	44	0	661
6:45 PM	13	70	56	0	0	0	0	0	0	181	0	0	0	220	29	0	569
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	159	981	739	0	0	0	0	0	0	2704	0	0	0	3267	483	0	8333
APPROACH %'s :	8.46%	52.21%	39.33%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	87.12%	12.88%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	46	363	268	0	0	0	0	0	0	1016	0	0	0	1117	210	0	3020
PEAK HR FACTOR :	0.767	0.796	0.807	0.000	0.000	0.000	0.000	0.000	0.000	0.907	0.000	0.000	0.000	0.934	0.875	0.000	0.963
	0.798								0.907				0.924				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd E dwy
City: Fairfax
Control: Signalized

Project ID: 19-11055-005
Date: 5/2/2019

Cars

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd E dwy				Fairfax Blvd/Arlington Blvd E dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	6	62	67	0	0	0	0	0	0	459	0	0	0	65	11	0	670
6:45 AM	1	100	78	0	0	0	0	0	0	385	0	0	0	94	11	0	669
7:00 AM	6	115	98	0	0	0	0	0	0	376	0	0	0	118	16	0	729
7:15 AM	3	119	81	0	0	0	0	0	0	336	0	0	0	127	13	0	679
7:30 AM	1	120	83	0	0	0	0	0	0	329	0	0	0	102	28	0	663
7:45 AM	9	146	73	0	0	0	0	0	0	337	0	0	0	142	32	0	739
8:00 AM	12	158	75	0	0	0	0	0	0	290	0	0	0	154	18	0	707
8:15 AM	12	181	71	0	0	0	0	0	0	317	0	0	0	158	29	0	768
8:30 AM	12	148	64	0	0	0	0	0	0	280	0	0	0	150	27	0	681
8:45 AM	5	97	68	0	0	0	0	0	0	326	0	0	0	156	34	0	686
9:00 AM	5	107	68	0	0	0	0	0	0	286	0	0	0	167	23	0	656
9:15 AM	12	73	59	0	0	0	0	0	0	264	0	0	0	156	23	0	587
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	84	1426	885	0	0	0	0	0	0	3985	0	0	0	1589	265	0	8234
APPROACH %'s :	3.51%	59.54%	36.95%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	85.71%	14.29%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	45	633	283	0	0	0	0	0	0	1224	0	0	0	604	106	0	2895
PEAK HR FACTOR :	0.94	0.874	0.943	0.000	0.000	0.000	0.000	0.000	0.000	0.908	0.000	0.000	0.000	0.956	0.828	0.000	0.942
		0.910								0.908				0.949			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	16	79	65	0	0	0	0	0	0	177	0	0	0	283	23	0	643
4:15 PM	9	64	54	0	0	0	0	0	0	198	0	0	0	310	14	0	649
4:30 PM	17	89	63	0	0	0	0	0	0	230	0	0	0	252	34	0	685
4:45 PM	12	73	58	0	0	0	0	0	0	277	0	0	0	295	59	0	774
5:00 PM	15	110	83	0	0	0	0	0	0	240	0	0	0	238	43	0	729
5:15 PM	11	73	65	0	0	0	0	0	0	252	0	0	0	281	59	0	741
5:30 PM	8	95	58	0	0	0	0	0	0	228	0	0	0	287	47	0	723
5:45 PM	8	62	58	0	0	0	0	0	0	239	0	0	0	252	33	0	652
6:00 PM	9	94	54	0	0	0	0	0	0	225	0	0	0	255	50	0	687
6:15 PM	20	77	66	0	0	0	0	0	0	192	0	0	0	272	41	0	668
6:30 PM	18	62	45	0	0	0	0	0	0	209	0	0	0	266	44	0	644
6:45 PM	13	68	55	0	0	0	0	0	0	180	0	0	0	218	28	0	562
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	156	946	724	0	0	0	0	0	0	2647	0	0	0	3209	475	0	8157
APPROACH %'s :	8.54%	51.81%	39.65%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	87.11%	12.89%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	46	351	264	0	0	0	0	0	0	997	0	0	0	1101	208	0	2967
PEAK HR FACTOR :	0.77	0.798	0.795	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.000	0.000	0.933	0.881	0.000	0.958
		0.794								0.900				0.924			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd E dwy
City: Fairfax
Control: Signalized

Project ID: 19-11055-005
Date: 5/2/2019

HT

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd E dwy				Fairfax Blvd/Arlington Blvd E dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	4	3	0	0	0	0	0	0	6	0	0	0	7	1	0	21
6:45 AM	0	10	2	0	0	0	0	0	0	7	0	0	0	7	2	0	28
7:00 AM	0	6	0	0	0	0	0	0	0	5	0	0	0	3	1	0	15
7:15 AM	0	14	2	0	0	0	0	0	0	10	0	0	0	4	0	0	30
7:30 AM	0	6	0	0	0	0	0	0	0	11	0	0	0	3	1	0	21
7:45 AM	0	12	2	0	0	0	0	0	0	13	0	0	0	11	2	0	40
8:00 AM	0	7	0	0	0	0	0	0	0	7	0	0	0	4	2	0	20
8:15 AM	0	13	1	0	0	0	0	0	0	14	0	0	0	8	0	0	36
8:30 AM	0	14	2	0	0	0	0	0	0	6	0	0	0	5	2	0	29
8:45 AM	0	4	3	0	0	0	0	0	0	11	0	0	0	9	4	0	31
9:00 AM	0	5	1	0	0	0	0	0	0	20	0	0	0	5	1	0	32
9:15 AM	0	6	1	0	0	0	0	0	0	13	0	0	0	4	4	0	28
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	101	17	0	0	0	0	0	0	123	0	0	0	70	20	0	331
APPROACH %'s :	0.00%	85.59%	14.41%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	77.78%	22.22%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	46	5	0	0	0	0	0	0	40	0	0	0	28	6	0	125
PEAK HR FACTOR :	0.000	0.821	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.714	0.000	0.000	0.000	0.636	0.750	0.000	0.781
	0.797								0.714				0.654				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	5	2	0	0	0	0	0	0	8	0	0	0	3	1	0	19
4:15 PM	1	4	1	0	0	0	0	0	0	5	0	0	0	9	0	0	20
4:30 PM	2	3	2	0	0	0	0	0	0	4	0	0	0	10	1	0	22
4:45 PM	0	1	1	0	0	0	0	0	0	3	0	0	0	4	1	0	10
5:00 PM	0	4	0	0	0	0	0	0	0	6	0	0	0	3	1	0	14
5:15 PM	0	3	2	0	0	0	0	0	0	5	0	0	0	3	0	0	13
5:30 PM	0	4	1	0	0	0	0	0	0	5	0	0	0	6	0	0	16
5:45 PM	0	2	0	0	0	0	0	0	0	8	0	0	0	4	1	0	15
6:00 PM	0	2	1	0	0	0	0	0	0	2	0	0	0	8	1	0	14
6:15 PM	0	3	0	0	0	0	0	0	0	4	0	0	0	1	1	0	9
6:30 PM	0	2	4	0	0	0	0	0	0	6	0	0	0	5	0	0	17
6:45 PM	0	2	1	0	0	0	0	0	0	1	0	0	0	2	1	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	35	15	0	0	0	0	0	0	57	0	0	0	58	8	0	176
APPROACH %'s :	5.66%	66.04%	28.30%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	87.88%	12.12%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	12	4	0	0	0	0	0	0	19	0	0	0	16	2	0	53
PEAK HR FACTOR :	0.00	0.750	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.000	0.000	0.000	0.667	0.500	0.000	0.828
	0.800								0.792				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd E dwy
City: Fairfax
Control: Signalized

Project ID: 19-11055-005
Date: 5/2/2019

Bikes

NS/EW Streets:	Old Lee Hwy				Old Lee Hwy				Fairfax Blvd/Arlington Blvd E dwy				Fairfax Blvd/Arlington Blvd E dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.500																

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	1.5	1	0	0	0	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Lee Hwy & Fairfax Blvd/Arlington Blvd E dwy
City: Fairfax

19-11055-005
5/2/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Old Lee Hwy		Old Lee Hwy		Fairfax Blvd/Arlington Blvd E dwy		Fairfax Blvd/Arlington Blvd E dwy										
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG CUT OUT		NORTH LEG 2 CUT OUT		SOUTH LEG CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	EB	WB	EB	WB	TOTAL
6:30 AM	0	0	0	0	5	0	0	0	5	0					5	0	15
6:45 AM	0	0	1	0	0	0	0	0	0	0					0	2	3
7:00 AM	0	0	1	1	3	0	0	0	3	0					4	1	13
7:15 AM	0	0	1	0	1	0	0	0	1	0					1	1	5
7:30 AM	0	0	0	0	2	2	0	0	2	2					3	2	13
7:45 AM	0	0	0	0	3	0	0	0	3	0					1	0	7
8:00 AM	0	0	0	0	1	1	0	0	1	1					2	2	8
8:15 AM	0	1	0	0	1	0	0	0	0	0					1	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0					1	0	1
8:45 AM	0	0	1	0	0	0	0	0	0	0					0	1	2
9:00 AM	0	0	0	0	1	1	0	0	1	1					1	1	6
9:15 AM	0	1	0	0	1	1	0	0	0	1					1	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	2	4	1	18	5	0	0	16	5	0	0	0	0	20	11	82
APPROACH %'s :	0.00%	100.00%	80.00%	20.00%	78.26%	21.74%			76.19%	23.81%					64.52%	35.48%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1	0	0	5	1	0	0	4	1	0	0	0	0	5	2	19
PEAK HR FACTOR :	0.250				0.417	0.250			0.333	0.250					0.625	0.250	0.594
	0.250				0.500				0.417						0.438		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG CUT OUT		NORTH LEG 2 CUT OUT		SOUTH LEG CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	EB	WB	EB	WB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0					0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0					0	0	1
4:30 PM	0	1	1	0	4	0	0	0	1	1					3	1	12
4:45 PM	0	0	0	0	0	2	0	0	0	2					0	1	5
5:00 PM	0	0	0	0	1	0	0	0	1	0					1	0	3
5:15 PM	0	0	0	0	2	1	0	0	0	1					2	1	7
5:30 PM	0	0	0	0	1	2	0	0	0	2					1	2	8
5:45 PM	0	0	0	0	0	1	0	0	0	1					0	1	3
6:00 PM	1	0	0	1	1	0	0	0	2	0					1	0	6
6:15 PM	0	0	1	0	1	2	0	0	1	3					1	3	12
6:30 PM	0	1	0	0	9	0	0	0	0	0					9	0	19
6:45 PM	0	1	0	0	1	1	0	0	0	1					1	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	1	3	2	1	21	9	0	0	5	11	0	0	0	0	19	10	82
APPROACH %'s :	25.00%	75.00%	66.67%	33.33%	70.00%	30.00%			31.25%	68.75%					65.52%	34.48%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	4	5	0	0	1	5	0	0	0	0	4	4	23
PEAK HR FACTOR :					0.500	0.625			0.250	0.625					0.500	0.500	0.719
					0.750				0.750						0.667		

APPENDIX B

SYNCHRO ANALYSIS REPORTS

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	155	1554	10	883	1	47	114
v/c Ratio	0.30	0.36	0.04	0.23	0.01	0.44	0.49
Control Delay	4.3	5.3	3.8	6.6	72.0	92.4	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	5.3	3.8	6.6	72.0	92.4	18.1
Queue Length 50th (ft)	22	106	1	90	1	58	0
Queue Length 95th (ft)	64	303	8	170	7	98	63
Internal Link Dist (ft)		1739		274	70	420	
Turn Bay Length (ft)	190		50				200
Base Capacity (vph)	647	4305	396	3799	392	267	404
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	0.24	0.36	0.03	0.23	0.00	0.18	0.28

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	146	1522	1	5	5	805	61	0	1	0	46
Future Volume (vph)	6	146	1522	1	5	5	805	61	0	1	0	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8		
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00		
Frt		1.00	1.00			1.00	0.99			1.00		
Flt Protected		0.95	1.00			0.95	1.00			1.00		
Satd. Flow (prot)		1751	5186			1805	4888			1900		
Flt Permitted		0.29	1.00			0.15	1.00			1.00		
Satd. Flow (perm)		536	5186			281	4888			1900		
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	6	149	1553	1	5	5	821	62	0	1	0	47
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	0	0
Lane Group Flow (vph)	0	155	1554	0	0	10	881	0	0	1	0	0
Heavy Vehicles (%)	5%	3%	0%	0%	0%	0%	5%	5%	0%	0%	0%	11%
Turn Type	custom	pm+pt	NA		custom	pm+pt	NA			NA	Perm	Perm
Protected Phases		1	6			5	2			4		
Permitted Phases	1	6			5	2			4		4	4
Actuated Green, G (s)		161.2	152.7			149.0	146.6			14.9		
Effective Green, g (s)		162.7	153.7			151.0	147.6			15.9		
Actuated g/C Ratio		0.86	0.81			0.79	0.78			0.08		
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8		
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		
Lane Grp Cap (vph)		519	4195			250	3797			159		
v/s Ratio Prot		c0.01	c0.30			0.00	0.18			0.00		
v/s Ratio Perm		0.24				0.03						
v/c Ratio		0.30	0.37			0.04	0.23			0.01		
Uniform Delay, d1		2.5	5.0			4.1	5.8			79.8		
Progression Factor		1.00	1.00			1.00	1.00			1.00		
Incremental Delay, d2		0.3	0.3			0.1	0.1			0.0		
Delay (s)		2.8	5.2			4.2	5.9			79.8		
Level of Service		A	A			A	A			E		
Approach Delay (s)			5.0				5.9			79.8		
Approach LOS			A				A			E		

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	112
Future Volume (vph)	0	112
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1626	1524
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1296	1524
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	0	114
RTOR Reduction (vph)	0	104
Lane Group Flow (vph)	47	10
Heavy Vehicles (%)	0%	6%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	14.9	14.9
Effective Green, g (s)	15.9	15.9
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	108	127
v/s Ratio Prot		
v/s Ratio Perm	c0.04	0.01
v/c Ratio	0.44	0.08
Uniform Delay, d1	82.8	80.3
Progression Factor	1.00	1.00
Incremental Delay, d2	2.8	0.3
Delay (s)	85.6	80.5
Level of Service	F	F
Approach Delay (s)	82.0	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↳			↱
Traffic Vol, veh/h	0	1562	884	5	0	5
Future Vol, veh/h	0	1562	884	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1698	961	5	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	483
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*713
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*713
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	713
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	10.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	22	1513	27	10	5	853	36	11	4	5	23	1	25
Future Vol, veh/h	22	1513	27	10	5	853	36	11	4	5	23	1	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	4	0	20	5	3	0	9	0	0	13	0	4
Mvmt Flow	22	1544	28	10	5	870	37	11	4	5	23	1	26

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	907	0	0	1147	1572	0	0	1981	2539	786	1583	2535	454
Stage 1	-	-	-	-	-	-	-	1602	1602	-	919	919	-
Stage 2	-	-	-	-	-	-	-	379	937	-	664	1616	-
Critical Hdwy	5.3	-	-	6	5.4	-	-	6.58	6.5	7.1	6.66	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.48	5.5	-	7.56	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.88	5.5	-	6.96	5.5	-
Follow-up Hdwy	3.1	-	-	2.5	3.15	-	-	3.89	4	3.9	3.93	4	3.94
Pot Cap-1 Maneuver	*902	-	-	*874	*694	-	-	*60	*28	*560	*103	*28	*709
Stage 1	-	-	-	-	-	-	-	*561	*546	-	*711	*699	-
Stage 2	-	-	-	-	-	-	-	*718	*699	-	*556	*546	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*902	-	-	*800	*800	-	-	*54	*27	*560	*87	*27	*709
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*54	*27	-	*87	*27	-
Stage 1	-	-	-	-	-	-	-	*548	*533	-	*694	*685	-
Stage 2	-	-	-	-	-	-	-	*678	*685	-	*533	*533	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	104.9	42
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	55	* 902	-	-	* 800	-	-	146
HCM Lane V/C Ratio	0.371	0.025	-	-	0.019	-	-	0.342
HCM Control Delay (s)	104.9	9.1	-	-	9.6	-	-	42
HCM Lane LOS	F	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0.1	-	-	1.4

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1337	316	738	389	296
v/c Ratio	0.54	0.30	0.30	0.44	0.19
Control Delay	17.4	14.0	3.9	69.0	0.3
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	17.4	14.0	4.1	69.0	0.3
Queue Length 50th (ft)	472	167	48	251	0
Queue Length 95th (ft)	602	254	54	292	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2463	1041	2439	1088	1524
Starvation Cap Reductn	0	0	904	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.30	0.48	0.36	0.19

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1243	294	0	686	0	0	0	0	13	349	275
Future Volume (vph)	0	1243	294	0	686	0	0	0	0	13	349	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3505	1482		3471						3411	1524
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3505	1482		3471						3411	1524
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	1337	316	0	738	0	0	0	0	14	375	296
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1337	316	0	738	0	0	0	0	0	389	296
Heavy Vehicles (%)	0%	3%	9%	0%	4%	0%	0%	0%	0%	23%	5%	6%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		153.0	153.0		153.0						54.4	220.0
Effective Green, g (s)		154.6	154.6		154.6						57.1	220.0
Actuated g/C Ratio		0.70	0.70		0.70						0.26	1.00
Clearance Time (s)		5.1	5.1		5.1						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2463	1041		2439						885	1524
v/s Ratio Prot		c0.38	0.21		0.21						c0.11	
v/s Ratio Perm												0.19
v/c Ratio		0.54	0.30		0.30						0.44	0.19
Uniform Delay, d1		15.7	12.4		12.3						68.1	0.0
Progression Factor		1.00	1.00		0.28						1.00	1.00
Incremental Delay, d2		0.9	0.8		0.3						0.4	0.3
Delay (s)		16.6	13.1		3.7						68.4	0.3
Level of Service		B	B		A						E	A
Approach Delay (s)		15.9			3.7			0.0			39.0	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1360	700	126	721	309
v/c Ratio	0.55	0.29	0.12	0.82	0.20
Control Delay	2.8	13.1	11.8	84.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	13.1	11.8	84.3	0.3
Queue Length 50th (ft)	37	191	57	523	0
Queue Length 95th (ft)	40	256	98	573	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2463	2439	1060	1087	1583
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	0.55	0.29	0.12	0.66	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1251	0	0	644	116	41	622	284	0	0	0
Future Volume (vph)	0	1251	0	0	644	116	41	622	284	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5			3.5	3.5		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)		3505			3471	1509		3407	1583			
Flt Permitted		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)		3505			3471	1509		3407	1583			
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)	0	1360	0	0	700	126	45	676	309	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1360	0	0	700	126	0	721	309	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	4%	7%	0%	6%	2%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		153.0			153.0	153.0		54.4	220.0			
Effective Green, g (s)		154.6			154.6	154.6		57.1	220.0			
Actuated g/C Ratio		0.70			0.70	0.70		0.26	1.00			
Clearance Time (s)		5.1			5.1	5.1		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2463			2439	1060		884	1583			
v/s Ratio Prot		c0.39			0.20			c0.21				
v/s Ratio Perm						0.08			0.20			
v/c Ratio		0.55			0.29	0.12		0.82	0.20			
Uniform Delay, d1		15.9			12.2	10.6		76.5	0.0			
Progression Factor		0.12			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.8			0.3	0.2		5.9	0.3			
Delay (s)		2.7			12.5	10.8		82.4	0.3			
Level of Service		A			B	B		F	A			
Approach Delay (s)		2.7			12.2			57.7			0.0	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	136	1142	7	1765	1	6	65	121
v/c Ratio	0.56	0.27	0.02	0.44	0.01	0.04	0.58	0.50
Control Delay	12.2	4.5	3.6	8.7	86.0	0.5	114.8	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	4.5	3.6	8.7	86.0	0.5	114.8	18.8
Queue Length 50th (ft)	23	83	1	256	1	0	94	0
Queue Length 95th (ft)	56	202	6	431	9	0	148	72
Internal Link Dist (ft)		1739		274	70		420	
Turn Bay Length (ft)	190		50					200
Base Capacity (vph)	339	4274	507	4012	191	251	210	345
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.27	0.01	0.44	0.01	0.02	0.31	0.35

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	10	122	1103	5	4	3	1622	90	1	0	6	63
Future Volume (vph)	10	122	1103	5	4	3	1622	90	1	0	6	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8	6.8	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	0.99			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1756	5078			1805	5082			1805	1380	
Flt Permitted		0.10	1.00			0.24	1.00			0.65	1.00	
Satd. Flow (perm)		193	5078			449	5082			1228	1380	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	10	126	1137	5	4	3	1672	93	1	0	6	65
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	6	0
Lane Group Flow (vph)	0	136	1142	0	0	7	1763	0	0	1	0	0
Heavy Vehicles (%)	0%	3%	2%	20%	0%	0%	1%	6%	0%	0%	17%	6%
Turn Type	pm+pt	pm+pt	NA		custom	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6			5	2			4		
Permitted Phases	6	6			5	2			4		4	4
Actuated Green, G (s)		189.2	180.2			175.0	172.6			17.4	17.4	
Effective Green, g (s)		190.2	181.2			177.0	173.6			18.4	17.4	
Actuated g/C Ratio		0.86	0.82			0.80	0.79			0.08	0.08	
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8	6.8	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		245	4182			382	4010			102	109	
v/s Ratio Prot		c0.03	0.22			0.00	0.35					
v/s Ratio Perm		c0.45				0.01				0.00	0.00	
v/c Ratio		0.56	0.27			0.02	0.44			0.01	0.00	
Uniform Delay, d1		6.1	4.4			4.2	7.5			92.4	93.3	
Progression Factor		1.00	1.00			1.00	1.00			1.00	1.00	
Incremental Delay, d2		2.7	0.2			0.0	0.4			0.0	0.0	
Delay (s)		8.8	4.6			4.2	7.8			92.5	93.3	
Level of Service		A	A			A	A			F	F	
Approach Delay (s)			5.0				7.8			93.2		
Approach LOS			A				A			F		

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	117
Future Volume (vph)	0	117
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1703	1568
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1357	1568
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	0	121
RTOR Reduction (vph)	0	111
Lane Group Flow (vph)	65	10
Heavy Vehicles (%)	0%	3%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	17.4	17.4
Effective Green, g (s)	18.4	18.4
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	113	131
v/s Ratio Prot		
v/s Ratio Perm	c0.05	0.01
v/c Ratio	0.58	0.08
Uniform Delay, d1	97.0	93.0
Progression Factor	1.00	1.00
Incremental Delay, d2	6.9	0.3
Delay (s)	103.9	93.2
Level of Service	F	F
Approach Delay (s)	97.0	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1188	1715	7	0	4
Future Vol, veh/h	0	1188	1715	7	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1291	1864	8	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	936
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*514
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*514
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	514
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	12.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	27	1133	28	18	13	1654	27	10	0	27	27	2	58
Future Vol, veh/h	27	1133	28	18	13	1654	27	10	0	27	27	2	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	8	2	0	0	0	2	0	0	0	4	0	0	3
Mvmt Flow	28	1168	29	19	13	1705	28	10	0	28	28	2	60

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1733	0	0	874	1197	0	0	1986	3036	599	2306	3036	867
Stage 1	-	-	-	-	-	-	-	1239	1239	-	1783	1783	-
Stage 2	-	-	-	-	-	-	-	747	1797	-	523	1253	-
Critical Hdwy	5.46	-	-	5.6	5.3	-	-	6.4	6.5	7.18	6.4	6.5	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.18	-	-	2.3	3.1	-	-	3.8	4	3.94	3.8	4	3.93
Pot Cap-1 Maneuver	*664	-	-	*1094	*812	-	-	*66	*13	*638	*42	*13	*537
Stage 1	-	-	-	-	-	-	-	*662	*629	-	*556	*528	-
Stage 2	-	-	-	-	-	-	-	*556	*528	-	*662	*629	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*664	-	-	*934	*934	-	-	*48	*12	*638	*38	*12	*537
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*48	*12	-	*38	*12	-
Stage 1	-	-	-	-	-	-	-	*634	*603	-	*532	*510	-
Stage 2	-	-	-	-	-	-	-	*475	*510	-	*606	*603	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	37.6	187.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	* 664	-	-	* 934	-	-	88
HCM Lane V/C Ratio	0.258	0.042	-	-	0.034	-	-	1.019
HCM Control Delay (s)	37.6	10.7	-	-	9	-	-	187.3
HCM Lane LOS	E	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1	0.1	-	-	0.1	-	-	5.9

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1018	297	1192	878	646
v/c Ratio	0.45	0.30	0.52	0.87	0.41
Control Delay	10.6	9.6	3.4	46.1	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	9.6	3.4	46.1	0.8
Queue Length 50th (ft)	169	82	38	293	0
Queue Length 95th (ft)	213	128	44	#397	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2249	1006	2272	1017	1583
Starvation Cap Reductn	0	0	31	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.30	0.53	0.86	0.41

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												
Traffic Volume (vph)	0	998	291	0	1168	0	0	0	0	23	838	633
Future Volume (vph)	0	998	291	0	1168	0	0	0	0	23	838	633
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4	3.4		3.4						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3539	1583		3574						3536	1583
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3539	1583		3574						3536	1583
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	1018	297	0	1192	0	0	0	0	23	855	646
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1018	297	0	1192	0	0	0	0	0	878	646
Heavy Vehicles (%)	0%	2%	2%	0%	1%	0%	0%	0%	0%	0%	2%	2%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		65.2	65.2		65.2						27.3	105.0
Effective Green, g (s)		66.8	66.8		66.8						30.0	105.0
Actuated g/C Ratio		0.64	0.64		0.64						0.29	1.00
Clearance Time (s)		5.0	5.0		5.0						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2251	1007		2273						1010	1583
v/s Ratio Prot		0.29	0.19		c0.33						c0.25	
v/s Ratio Perm												0.41
v/c Ratio		0.45	0.29		0.52						0.87	0.41
Uniform Delay, d1		9.8	8.6		10.4						35.6	0.0
Progression Factor		1.00	1.00		0.25						1.00	1.00
Incremental Delay, d2		0.7	0.7		0.8						8.1	0.8
Delay (s)		10.4	9.3		3.3						43.7	0.8
Level of Service		B	A		A						D	A
Approach Delay (s)		10.2			3.3			0.0			25.5	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1058	1164	219	426	279
v/c Ratio	0.47	0.51	0.22	0.43	0.17
Control Delay	2.9	11.3	8.8	32.0	0.2
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	2.9	11.3	8.8	32.0	0.2
Queue Length 50th (ft)	29	204	57	122	0
Queue Length 95th (ft)	m33	255	92	168	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2249	2272	1016	1005	1599
Starvation Cap Reductn	157	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.51	0.22	0.42	0.17

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												
Traffic Volume (vph)	0	1016	0	0	1117	210	46	363	268	0	0	0
Future Volume (vph)	0	1016	0	0	1117	210	46	363	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4			3.4	3.4		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3539			3574	1599		3497	1599			
Flt Permitted		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3539			3574	1599		3497	1599			
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)	0	1058	0	0	1164	219	48	378	279	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1058	0	0	1164	219	0	426	279	0	0	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	3%	1%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		65.2			65.2	65.2		27.3	105.0			
Effective Green, g (s)		66.8			66.8	66.8		30.0	105.0			
Actuated g/C Ratio		0.64			0.64	0.64		0.29	1.00			
Clearance Time (s)		5.0			5.0	5.0		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2251			2273	1017		999	1599			
v/s Ratio Prot		0.30			c0.33			c0.12				
v/s Ratio Perm						0.14			0.17			
v/c Ratio		0.47			0.51	0.22		0.43	0.17			
Uniform Delay, d1		9.9			10.3	8.1		30.5	0.0			
Progression Factor		0.22			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.6			0.8	0.5		0.3	0.2			
Delay (s)		2.8			11.1	8.5		30.8	0.2			
Level of Service		A			B	A		C	A			
Approach Delay (s)		2.8			10.7			18.7			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	158	1636	10	964	1	48	116
v/c Ratio	0.33	0.38	0.04	0.25	0.01	0.44	0.50
Control Delay	4.6	5.5	3.8	6.8	72.0	92.6	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	5.5	3.8	6.8	72.0	92.6	18.1
Queue Length 50th (ft)	23	115	1	101	1	59	0
Queue Length 95th (ft)	65	325	8	188	7	100	64
Internal Link Dist (ft)		1739		274	70	420	
Turn Bay Length (ft)	190		50				200
Base Capacity (vph)	614	4303	376	3799	392	267	406
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	0.26	0.38	0.03	0.25	0.00	0.18	0.29

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	149	1602	1	5	5	883	62	0	1	0	47
Future Volume (vph)	6	149	1602	1	5	5	883	62	0	1	0	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8		
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00		
Frt		1.00	1.00			1.00	0.99			1.00		
Flt Protected		0.95	1.00			0.95	1.00			1.00		
Satd. Flow (prot)		1751	5187			1805	4892			1900		
Flt Permitted		0.27	1.00			0.13	1.00			1.00		
Satd. Flow (perm)		489	5187			255	4892			1900		
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	6	152	1635	1	5	5	901	63	0	1	0	48
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	0	0
Lane Group Flow (vph)	0	158	1636	0	0	10	962	0	0	1	0	0
Heavy Vehicles (%)	5%	3%	0%	0%	0%	0%	5%	5%	0%	0%	0%	11%
Turn Type	custom	pm+pt	NA		custom	pm+pt	NA			NA	Perm	Perm
Protected Phases		1	6			5	2			4		
Permitted Phases	1	6			5	2			4		4	4
Actuated Green, G (s)		161.2	152.7			149.0	146.6			14.9		
Effective Green, g (s)		162.7	153.7			151.0	147.6			15.9		
Actuated g/C Ratio		0.86	0.81			0.79	0.78			0.08		
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8		
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		
Lane Grp Cap (vph)		481	4196			230	3800			159		
v/s Ratio Prot		c0.02	c0.32			0.00	0.20			0.00		
v/s Ratio Perm		0.26				0.03						
v/c Ratio		0.33	0.39			0.04	0.25			0.01		
Uniform Delay, d1		2.6	5.1			4.1	5.9			79.8		
Progression Factor		1.00	1.00			1.00	1.00			1.00		
Incremental Delay, d2		0.4	0.3			0.1	0.2			0.0		
Delay (s)		3.0	5.3			4.2	6.0			79.8		
Level of Service		A	A			A	A			E		
Approach Delay (s)			5.1				6.0			79.8		
Approach LOS			A				A			E		

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	114
Future Volume (vph)	0	114
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1626	1524
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1296	1524
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	0	116
RTOR Reduction (vph)	0	106
Lane Group Flow (vph)	48	10
Heavy Vehicles (%)	0%	6%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	14.9	14.9
Effective Green, g (s)	15.9	15.9
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	108	127
v/s Ratio Prot		
v/s Ratio Perm	c0.04	0.01
v/c Ratio	0.44	0.08
Uniform Delay, d1	82.8	80.3
Progression Factor	1.00	1.00
Incremental Delay, d2	2.9	0.3
Delay (s)	85.7	80.5
Level of Service	F	F
Approach Delay (s)	82.1	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1642	964	5	0	5
Future Vol, veh/h	0	1642	964	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1785	1048	5	0	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	527
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*689
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*689
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	689
HCM Lane V/C Ratio	-	-	-	0.008
HCM Control Delay (s)	-	-	-	10.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	22	1592	28	10	5	932	37	11	4	5	23	1	26
Future Vol, veh/h	22	1592	28	10	5	932	37	11	4	5	23	1	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	4	0	20	5	3	0	9	0	0	13	0	4
Mvmt Flow	22	1624	29	10	5	951	38	11	4	5	23	1	27

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	989	0	0	1207	1653	0	0	2094	2702	827	1696	2697	495
Stage 1	-	-	-	-	-	-	-	1683	1683	-	1000	1000	-
Stage 2	-	-	-	-	-	-	-	411	1019	-	696	1697	-
Critical Hdwy	5.3	-	-	6	5.4	-	-	6.58	6.5	7.1	6.66	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.48	5.5	-	7.56	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.88	5.5	-	6.96	5.5	-
Follow-up Hdwy	3.1	-	-	2.5	3.15	-	-	3.89	4	3.9	3.93	4	3.94
Pot Cap-1 Maneuver	*887	-	-	*852	*677	-	-	*51	*22	*546	*87	*22	*697
Stage 1	-	-	-	-	-	-	-	*547	*533	-	*699	*687	-
Stage 2	-	-	-	-	-	-	-	*706	*687	-	*542	*533	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*887	-	-	*780	*780	-	-	*46	*21	*546	*71	*21	*697
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*46	*21	-	*71	*21	-
Stage 1	-	-	-	-	-	-	-	*534	*519	-	*682	*674	-
Stage 2	-	-	-	-	-	-	-	*665	*674	-	*520	*519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	135	54.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	46	* 887	-	-	* 780	-	-	122
HCM Lane V/C Ratio	0.444	0.025	-	-	0.02	-	-	0.418
HCM Control Delay (s)	135	9.2	-	-	9.7	-	-	54.2
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0.1	-	-	1.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1410	329	819	424	302
v/c Ratio	0.58	0.32	0.34	0.47	0.20
Control Delay	19.0	14.9	3.9	68.5	0.3
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	19.0	14.9	4.0	68.5	0.3
Queue Length 50th (ft)	529	180	50	274	0
Queue Length 95th (ft)	670	273	56	316	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2435	1029	2412	1088	1524
Starvation Cap Reductn	0	0	736	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.32	0.49	0.39	0.20

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1311	306	0	762	0	0	0	0	13	381	281
Future Volume (vph)	0	1311	306	0	762	0	0	0	0	13	381	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3505	1482		3471						3413	1524
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3505	1482		3471						3413	1524
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	1410	329	0	819	0	0	0	0	14	410	302
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1410	329	0	819	0	0	0	0	0	424	302
Heavy Vehicles (%)	0%	3%	9%	0%	4%	0%	0%	0%	0%	23%	5%	6%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		151.3	151.3		151.3						56.1	220.0
Effective Green, g (s)		152.9	152.9		152.9						58.8	220.0
Actuated g/C Ratio		0.70	0.70		0.70						0.27	1.00
Clearance Time (s)		5.1	5.1		5.1						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2435	1029		2412						912	1524
v/s Ratio Prot		c0.40	0.22		0.24						c0.12	
v/s Ratio Perm												0.20
v/c Ratio		0.58	0.32		0.34						0.46	0.20
Uniform Delay, d1		17.1	13.2		13.4						67.4	0.0
Progression Factor		1.00	1.00		0.25						1.00	1.00
Incremental Delay, d2		1.0	0.8		0.4						0.4	0.3
Delay (s)		18.1	14.0		3.7						67.8	0.3
Level of Service		B	B		A						E	A
Approach Delay (s)		17.3			3.7			0.0			39.7	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1434	782	155	747	333
v/c Ratio	0.59	0.32	0.15	0.82	0.21
Control Delay	2.6	14.2	12.6	83.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.6	14.2	12.6	83.4	0.3
Queue Length 50th (ft)	31	226	74	541	0
Queue Length 95th (ft)	34	298	122	591	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2435	2412	1048	1087	1583
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	0.59	0.32	0.15	0.69	0.21

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1319	0	0	719	143	42	645	306	0	0	0
Future Volume (vph)	0	1319	0	0	719	143	42	645	306	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5			3.5	3.5		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)		3505			3471	1509		3407	1583			
Flt Permitted		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)		3505			3471	1509		3407	1583			
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)	0	1434	0	0	782	155	46	701	333	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1434	0	0	782	155	0	747	333	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	4%	7%	0%	6%	2%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		151.3			151.3	151.3		56.1	220.0			
Effective Green, g (s)		152.9			152.9	152.9		58.8	220.0			
Actuated g/C Ratio		0.70			0.70	0.70		0.27	1.00			
Clearance Time (s)		5.1			5.1	5.1		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2435			2412	1048		910	1583			
v/s Ratio Prot		c0.41			0.23			c0.22				
v/s Ratio Perm						0.10			0.21			
v/c Ratio		0.59			0.32	0.15		0.82	0.21			
Uniform Delay, d1		17.3			13.2	11.4		75.7	0.0			
Progression Factor		0.10			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.9			0.4	0.3		6.0	0.3			
Delay (s)		2.6			13.6	11.7		81.7	0.3			
Level of Service		A			B	B		F	A			
Approach Delay (s)		2.6			13.3			56.6			0.0	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	138	1262	7	1875	1	6	66	123
v/c Ratio	0.59	0.30	0.02	0.47	0.01	0.04	0.58	0.50
Control Delay	17.7	4.7	3.9	9.7	86.0	0.5	114.9	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	4.7	3.9	9.7	86.0	0.5	114.9	18.8
Queue Length 50th (ft)	23	95	1	300	1	0	95	0
Queue Length 95th (ft)	90	228	6	490	9	0	149	72
Internal Link Dist (ft)		1739		274	70		420	
Turn Bay Length (ft)	190		50					200
Base Capacity (vph)	319	4272	464	3975	189	251	210	347
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.30	0.02	0.47	0.01	0.02	0.31	0.35

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	10	124	1219	5	4	3	1727	92	1	0	6	64
Future Volume (vph)	10	124	1219	5	4	3	1727	92	1	0	6	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8	6.8	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	0.99			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1756	5079			1805	5084			1805	1380	
Flt Permitted		0.09	1.00			0.21	1.00			0.64	1.00	
Satd. Flow (perm)		167	5079			396	5084			1219	1380	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	10	128	1257	5	4	3	1780	95	1	0	6	66
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	6	0
Lane Group Flow (vph)	0	138	1262	0	0	7	1873	0	0	1	0	0
Heavy Vehicles (%)	0%	3%	2%	20%	0%	0%	1%	6%	0%	0%	17%	6%
Turn Type	custom	pm+pt	NA		custom	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases		1	6			5	2			4		
Permitted Phases	1	6			5	2			4		4	4
Actuated Green, G (s)		189.1	180.1			173.4	171.0			17.5	17.5	
Effective Green, g (s)		190.1	181.1			175.4	172.0			18.5	17.5	
Actuated g/C Ratio		0.86	0.82			0.80	0.78			0.08	0.08	
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8	6.8	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		234	4180			337	3974			102	109	
v/s Ratio Prot		c0.03	0.25			0.00	0.37					
v/s Ratio Perm		c0.47				0.02				0.00	0.00	
v/c Ratio		0.59	0.30			0.02	0.47			0.01	0.00	
Uniform Delay, d1		8.6	4.6			4.5	8.3			92.4	93.2	
Progression Factor		1.00	1.00			1.00	1.00			1.00	1.00	
Incremental Delay, d2		3.8	0.2			0.0	0.4			0.0	0.0	
Delay (s)		12.4	4.8			4.6	8.7			92.4	93.2	
Level of Service		B	A			A	A			F	F	
Approach Delay (s)			5.5				8.7			93.1		
Approach LOS			A				A			F		

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	119
Future Volume (vph)	0	119
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1703	1568
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1357	1568
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	0	123
RTOR Reduction (vph)	0	113
Lane Group Flow (vph)	66	10
Heavy Vehicles (%)	0%	3%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	17.5	17.5
Effective Green, g (s)	18.5	18.5
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	114	131
v/s Ratio Prot		
v/s Ratio Perm	c0.05	0.01
v/c Ratio	0.58	0.08
Uniform Delay, d1	97.0	92.9
Progression Factor	1.00	1.00
Incremental Delay, d2	7.0	0.3
Delay (s)	104.0	93.2
Level of Service	F	F
Approach Delay (s)	96.9	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↳			↱
Traffic Vol, veh/h	0	1306	1821	7	0	4
Future Vol, veh/h	0	1306	1821	7	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1420	1979	8	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	994
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*489
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*489
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	489
HCM Lane V/C Ratio	-	-	-	0.009
HCM Control Delay (s)	-	-	-	12.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	28	1250	29	18	13	1759	28	10	0	28	28	2	59
Future Vol, veh/h	28	1250	29	18	13	1759	28	10	0	28	28	2	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	8	2	0	0	0	2	0	0	0	4	0	0	3
Mvmt Flow	29	1289	30	19	13	1813	29	10	0	29	29	2	61

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1842	0	0	963	1319	0	0	2152	3268	660	2466	3269	921
Stage 1	-	-	-	-	-	-	-	1362	1362	-	1892	1892	-
Stage 2	-	-	-	-	-	-	-	790	1906	-	574	1377	-
Critical Hdwy	5.46	-	-	5.6	5.3	-	-	6.4	6.5	7.18	6.4	6.5	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.18	-	-	2.3	3.1	-	-	3.8	4	3.94	3.8	4	3.93
Pot Cap-1 Maneuver	*634	-	-	*1053	*782	-	-	*52	*9	*615	*33	*9	*513
Stage 1	-	-	-	-	-	-	-	*638	*606	-	*530	*504	-
Stage 2	-	-	-	-	-	-	-	*530	*504	-	*638	*606	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*634	-	-	*898	*898	-	-	*35	*8	*615	*30	*8	*513
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*35	*8	-	*30	*8	-
Stage 1	-	-	-	-	-	-	-	*608	*578	-	*506	*486	-
Stage 2	-	-	-	-	-	-	-	*449	*486	-	*580	*578	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	51.7	$ 323
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	115	* 634	-	-	* 898	-	-	69
HCM Lane V/C Ratio	0.341	0.046	-	-	0.036	-	-	1.33
HCM Control Delay (s)	51.7	10.9	-	-	9.2	-	-	$ 323
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-	-	7.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1112	326	1289	924	659
v/c Ratio	0.50	0.32	0.57	0.91	0.42
Control Delay	11.2	9.9	3.5	50.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	9.9	3.5	50.0	0.8
Queue Length 50th (ft)	192	93	40	314	0
Queue Length 95th (ft)	240	141	46	#433	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2244	1004	2266	1017	1583
Starvation Cap Reductn	0	0	30	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.50	0.32	0.58	0.91	0.42

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												
Traffic Volume (vph)	0	1090	319	0	1263	0	0	0	0	23	883	646
Future Volume (vph)	0	1090	319	0	1263	0	0	0	0	23	883	646
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4	3.4		3.4						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3539	1583		3574						3537	1583
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3539	1583		3574						3537	1583
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	1112	326	0	1289	0	0	0	0	23	901	659
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1112	326	0	1289	0	0	0	0	0	924	659
Heavy Vehicles (%)	0%	2%	2%	0%	1%	0%	0%	0%	0%	0%	2%	2%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		65.0	65.0		65.0						27.5	105.0
Effective Green, g (s)		66.6	66.6		66.6						30.2	105.0
Actuated g/C Ratio		0.63	0.63		0.63						0.29	1.00
Clearance Time (s)		5.0	5.0		5.0						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2244	1004		2266						1017	1583
v/s Ratio Prot		0.31	0.21		c0.36						c0.26	
v/s Ratio Perm												0.42
v/c Ratio		0.50	0.32		0.57						0.91	0.42
Uniform Delay, d1		10.2	8.8		11.0						36.1	0.0
Progression Factor		1.00	1.00		0.23						1.00	1.00
Incremental Delay, d2		0.8	0.9		0.9						11.5	0.8
Delay (s)		11.0	9.7		3.4						47.6	0.8
Level of Service		B	A		A						D	A
Approach Delay (s)		10.7			3.4			0.0			28.1	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1154	1261	252	470	311
v/c Ratio	0.51	0.56	0.25	0.47	0.19
Control Delay	3.0	12.0	9.1	32.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	12.0	9.1	32.6	0.3
Queue Length 50th (ft)	31	231	67	136	0
Queue Length 95th (ft)	m35	287	107	186	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2244	2266	1014	1006	1599
Starvation Cap Reductn	8	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.56	0.25	0.47	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												
Traffic Volume (vph)	0	1108	0	0	1211	242	47	404	299	0	0	0
Future Volume (vph)	0	1108	0	0	1211	242	47	404	299	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4			3.4	3.4		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3539			3574	1599		3497	1599			
Flt Permitted		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3539			3574	1599		3497	1599			
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)	0	1154	0	0	1261	252	49	421	311	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1154	0	0	1261	252	0	470	311	0	0	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	3%	1%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		65.0			65.0	65.0		27.5	105.0			
Effective Green, g (s)		66.6			66.6	66.6		30.2	105.0			
Actuated g/C Ratio		0.63			0.63	0.63		0.29	1.00			
Clearance Time (s)		5.0			5.0	5.0		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2244			2266	1014		1005	1599			
v/s Ratio Prot		0.33			c0.35			c0.13				
v/s Ratio Perm						0.16			0.19			
v/c Ratio		0.51			0.56	0.25		0.47	0.19			
Uniform Delay, d1		10.4			10.9	8.3		30.8	0.0			
Progression Factor		0.21			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.7			1.0	0.6		0.3	0.3			
Delay (s)		2.9			11.8	8.9		31.1	0.3			
Level of Service		A			B	A		C	A			
Approach Delay (s)		2.9			11.4			18.8			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	158	1664	67	991	1	48	116
v/c Ratio	0.34	0.41	0.26	0.26	0.01	0.44	0.50
Control Delay	4.8	7.5	5.6	6.8	72.0	92.6	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	7.5	5.6	6.8	72.0	92.6	18.1
Queue Length 50th (ft)	23	200	9	105	1	59	0
Queue Length 95th (ft)	65	348	31	195	7	100	64
Internal Link Dist (ft)		1739		274	70	420	
Turn Bay Length (ft)	190		50				200
Base Capacity (vph)	612	4075	362	3799	392	267	406
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	0.26	0.41	0.19	0.26	0.00	0.18	0.29

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	149	1630	1	57	5	909	62	0	1	0	47
Future Volume (vph)	6	149	1630	1	57	5	909	62	0	1	0	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8		
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00		
Frt		1.00	1.00			1.00	0.99			1.00		
Flt Protected		0.95	1.00			0.95	1.00			1.00		
Satd. Flow (prot)		1751	5187			1805	4893			1900		
Flt Permitted		0.26	1.00			0.12	1.00			1.00		
Satd. Flow (perm)		487	5187			235	4893			1900		
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	6	152	1663	1	62	5	928	63	0	1	0	48
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	0	0
Lane Group Flow (vph)	0	158	1664	0	0	67	989	0	0	1	0	0
Heavy Vehicles (%)	5%	3%	0%	0%	0%	0%	5%	5%	0%	0%	0%	11%
Turn Type	custom	pm+pt	NA		custom	pm+pt	NA			NA	Perm	Perm
Protected Phases		1	6			5	2			4		
Permitted Phases	1	6			5	2			4		4	4
Actuated Green, G (s)		156.8	148.3			153.4	146.6			14.9		
Effective Green, g (s)		158.8	149.3			155.4	147.6			15.9		
Actuated g/C Ratio		0.84	0.79			0.82	0.78			0.08		
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8		
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0		
Lane Grp Cap (vph)		470	4075			256	3801			159		
v/s Ratio Prot		c0.02	c0.32			0.01	0.20			0.00		
v/s Ratio Perm		0.26				0.20						
v/c Ratio		0.34	0.41			0.26	0.26			0.01		
Uniform Delay, d1		3.0	6.4			3.9	5.9			79.8		
Progression Factor		1.00	1.00			1.00	1.00			1.00		
Incremental Delay, d2		0.4	0.3			0.5	0.2			0.0		
Delay (s)		3.4	6.7			4.5	6.1			79.8		
Level of Service		A	A			A	A			E		
Approach Delay (s)			6.4				6.0			79.8		
Approach LOS			A				A			E		

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	114
Future Volume (vph)	0	114
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1626	1524
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1296	1524
Peak-hour factor, PHF	0.98	0.98
Adj. Flow (vph)	0	116
RTOR Reduction (vph)	0	106
Lane Group Flow (vph)	48	10
Heavy Vehicles (%)	0%	6%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	14.9	14.9
Effective Green, g (s)	15.9	15.9
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	108	127
v/s Ratio Prot		
v/s Ratio Perm	c0.04	0.01
v/c Ratio	0.44	0.08
Uniform Delay, d1	82.8	80.3
Progression Factor	1.00	1.00
Incremental Delay, d2	2.9	0.3
Delay (s)	85.7	80.5
Level of Service	F	F
Approach Delay (s)	82.1	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↳			↱
Traffic Vol, veh/h	0	1722	910	153	0	137
Future Vol, veh/h	0	1722	910	153	0	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1872	989	166	0	149

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	578
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*701
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*701
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	701
HCM Lane V/C Ratio	-	-	-	0.212
HCM Control Delay (s)	-	-	-	11.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.8

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	76	1618	28	10	5	974	37	11	4	5	36	1	78
Future Vol, veh/h	76	1618	28	10	5	974	37	11	4	5	36	1	78
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	4	0	20	5	3	0	9	0	0	13	0	4
Mvmt Flow	78	1651	29	10	5	994	38	11	4	5	37	1	80

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1032	0	0	1226	1680	0	0	2250	2884	840	1861	2879	516
Stage 1	-	-	-	-	-	-	-	1822	1822	-	1043	1043	-
Stage 2	-	-	-	-	-	-	-	428	1062	-	818	1836	-
Critical Hdwy	5.3	-	-	6	5.4	-	-	6.58	6.5	7.1	6.66	6.5	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.48	5.5	-	7.56	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.88	5.5	-	6.96	5.5	-
Follow-up Hdwy	3.1	-	-	2.5	3.15	-	-	3.89	4	3.9	3.93	4	3.94
Pot Cap-1 Maneuver	*872	-	-	*852	*677	-	-	*40	*16	*546	*68	*17	*685
Stage 1	-	-	-	-	-	-	-	*547	*533	-	*688	*676	-
Stage 2	-	-	-	-	-	-	-	*694	*676	-	*542	*531	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*872	-	-	*780	*780	-	-	*31	*14	*546	*48	*15	*685
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*31	*14	-	*48	*15	-
Stage 1	-	-	-	-	-	-	-	*499	*485	-	*626	*663	-
Stage 2	-	-	-	-	-	-	-	*601	*663	-	*485	*484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	245	133.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	31	* 872	-	-	* 780	-	-	124
HCM Lane V/C Ratio	0.658	0.089	-	-	0.02	-	-	0.946
HCM Control Delay (s)	245	9.5	-	-	9.7	-	-	133.8
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2.2	0.3	-	-	0.1	-	-	6.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1430	351	849	424	317
v/c Ratio	0.59	0.34	0.36	0.45	0.21
Control Delay	20.1	16.0	4.2	67.1	0.3
Queue Delay	0.0	0.0	0.2	0.0	0.0
Total Delay	20.1	16.0	4.4	67.1	0.3
Queue Length 50th (ft)	553	200	56	272	0
Queue Length 95th (ft)	704	302	62	312	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2411	1019	2388	1088	1524
Starvation Cap Reductn	0	0	672	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.34	0.49	0.39	0.21

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1330	326	0	790	0	0	0	0	13	381	295
Future Volume (vph)	0	1330	326	0	790	0	0	0	0	13	381	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3505	1482		3471						3413	1524
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3505	1482		3471						3413	1524
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	1430	351	0	849	0	0	0	0	14	410	317
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1430	351	0	849	0	0	0	0	0	424	317
Heavy Vehicles (%)	0%	3%	9%	0%	4%	0%	0%	0%	0%	23%	5%	6%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		149.8	149.8		149.8						57.6	220.0
Effective Green, g (s)		151.4	151.4		151.4						60.3	220.0
Actuated g/C Ratio		0.69	0.69		0.69						0.27	1.00
Clearance Time (s)		5.1	5.1		5.1						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2412	1019		2388						935	1524
v/s Ratio Prot		c0.41	0.24		0.24						c0.12	
v/s Ratio Perm												0.21
v/c Ratio		0.59	0.34		0.36						0.45	0.21
Uniform Delay, d1		18.1	14.0		14.2						66.2	0.0
Progression Factor		1.00	1.00		0.26						1.00	1.00
Incremental Delay, d2		1.1	0.9		0.4						0.4	0.3
Delay (s)		19.1	14.9		4.0						66.5	0.3
Level of Service		B	B		A						E	A
Approach Delay (s)		18.3			4.0			0.0			38.2	
Approach LOS		B			A			A			D	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1454	804	155	768	333
v/c Ratio	0.60	0.34	0.15	0.82	0.21
Control Delay	2.7	15.0	13.2	82.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.7	15.0	13.2	82.4	0.3
Queue Length 50th (ft)	32	240	75	556	0
Queue Length 95th (ft)	34	317	125	602	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2411	2388	1037	1087	1583
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	0.60	0.34	0.15	0.71	0.21

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1338	0	0	740	143	49	658	306	0	0	0
Future Volume (vph)	0	1338	0	0	740	143	49	658	306	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5			3.5	3.5		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (prot)		3505			3471	1509		3407	1583			
Flt Permitted		1.00			1.00	1.00		1.00	1.00			
Satd. Flow (perm)		3505			3471	1509		3407	1583			
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)	0	1454	0	0	804	155	53	715	333	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1454	0	0	804	155	0	768	333	0	0	0
Heavy Vehicles (%)	0%	3%	0%	0%	4%	7%	0%	6%	2%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		149.8			149.8	149.8		57.6	220.0			
Effective Green, g (s)		151.4			151.4	151.4		60.3	220.0			
Actuated g/C Ratio		0.69			0.69	0.69		0.27	1.00			
Clearance Time (s)		5.1			5.1	5.1		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2412			2388	1038		933	1583			
v/s Ratio Prot		c0.41			0.23			c0.23				
v/s Ratio Perm						0.10			0.21			
v/c Ratio		0.60			0.34	0.15		0.82	0.21			
Uniform Delay, d1		18.3			13.9	11.9		74.9	0.0			
Progression Factor		0.09			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.9			0.4	0.3		5.9	0.3			
Delay (s)		2.6			14.3	12.2		80.8	0.3			
Level of Service		A			B	B		F	A			
Approach Delay (s)		2.6			14.0			56.5			0.0	
Approach LOS		A			B			E			A	

Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	8.3
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	138	1281	53	1895	1	6	66	123
v/c Ratio	0.60	0.31	0.15	0.48	0.01	0.04	0.58	0.50
Control Delay	18.4	6.3	4.1	9.9	86.0	0.5	114.9	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	6.3	4.1	9.9	86.0	0.5	114.9	18.8
Queue Length 50th (ft)	23	154	9	308	1	0	95	0
Queue Length 95th (ft)	93	241	24	501	9	0	149	72
Internal Link Dist (ft)		1739		274	70		420	
Turn Bay Length (ft)	190		50					200
Base Capacity (vph)	317	4083	449	3969	189	251	210	347
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.31	0.12	0.48	0.01	0.02	0.31	0.35

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	10	124	1238	5	46	3	1746	92	1	0	6	64
Future Volume (vph)	10	124	1238	5	46	3	1746	92	1	0	6	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6			5.6	5.6			5.8	6.8	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	0.99			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1756	5079			1805	5084			1805	1380	
Flt Permitted		0.09	1.00			0.20	1.00			0.64	1.00	
Satd. Flow (perm)		163	5079			378	5084			1219	1380	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.92	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	10	128	1276	5	50	3	1800	95	1	0	6	66
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	0	6	0
Lane Group Flow (vph)	0	138	1281	0	0	53	1893	0	0	1	0	0
Heavy Vehicles (%)	0%	3%	2%	20%	0%	0%	1%	6%	0%	0%	17%	6%
Turn Type	custom	pm+pt	NA		custom	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases		1	6			5	2			4		
Permitted Phases	1	6			5	2			4		4	4
Actuated Green, G (s)		187.7	175.9			177.3	170.7			17.5	17.5	
Effective Green, g (s)		189.7	176.9			179.3	171.7			18.5	17.5	
Actuated g/C Ratio		0.86	0.80			0.82	0.78			0.08	0.08	
Clearance Time (s)		6.6	6.6			6.6	6.6			6.8	6.8	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		233	4083			357	3967			102	109	
v/s Ratio Prot		c0.03	0.25			0.01	0.37					
v/s Ratio Perm		c0.48				0.12				0.00	0.00	
v/c Ratio		0.59	0.31			0.15	0.48			0.01	0.00	
Uniform Delay, d1		9.1	5.6			3.9	8.4			92.4	93.2	
Progression Factor		1.00	1.00			1.00	1.00			1.00	1.00	
Incremental Delay, d2		4.0	0.2			0.2	0.4			0.0	0.0	
Delay (s)		13.1	5.8			4.1	8.9			92.4	93.2	
Level of Service		B	A			A	A			F	F	
Approach Delay (s)			6.6				8.7			93.1		
Approach LOS			A				A			F		

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	119
Future Volume (vph)	0	119
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.8	5.8
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1703	1568
Flt Permitted	0.76	1.00
Satd. Flow (perm)	1357	1568
Peak-hour factor, PHF	0.97	0.97
Adj. Flow (vph)	0	123
RTOR Reduction (vph)	0	113
Lane Group Flow (vph)	66	10
Heavy Vehicles (%)	0%	3%
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Actuated Green, G (s)	17.5	17.5
Effective Green, g (s)	18.5	18.5
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	6.8	6.8
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	114	131
v/s Ratio Prot		
v/s Ratio Perm	c0.05	0.01
v/c Ratio	0.58	0.08
Uniform Delay, d1	97.0	92.9
Progression Factor	1.00	1.00
Incremental Delay, d2	7.0	0.3
Delay (s)	104.0	93.2
Level of Service	F	F
Approach Delay (s)	96.9	
Approach LOS	F	

Intersection Summary

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1367	1771	128	0	115
Future Vol, veh/h	0	1367	1771	128	0	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1486	1925	139	0	125

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1032
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*514
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*514
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	514
HCM Lane V/C Ratio	-	-	-	0.243
HCM Control Delay (s)	-	-	-	14.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	30.4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	70	1269	29	18	13	1788	28	10	0	28	39	2	101
Future Vol, veh/h	70	1269	29	18	13	1788	28	10	0	28	39	2	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	130	-	-	-	110	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	8	2	0	0	0	2	0	0	0	4	0	0	3
Mvmt Flow	72	1308	30	19	13	1843	29	10	0	29	40	2	104

Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	1872	0	0	977	1338	0	0	2269	3403	669	2589	3404	936
Stage 1	-	-	-	-	-	-	-	1467	1467	-	1922	1922	-
Stage 2	-	-	-	-	-	-	-	802	1936	-	667	1482	-
Critical Hdwy	5.46	-	-	5.6	5.3	-	-	6.4	6.5	7.18	6.4	6.5	7.16
Critical Hdwy Stg 1	-	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.18	-	-	2.3	3.1	-	-	3.8	4	3.94	3.8	4	3.93
Pot Cap-1 Maneuver	*603	-	-	*1053	*782	-	-	*44	*7	*615	*~ 28	*7	*488
Stage 1	-	-	-	-	-	-	-	*638	*606	-	*504	*479	-
Stage 2	-	-	-	-	-	-	-	*504	*479	-	*638	*594	-
Platoon blocked, %	1	-	-	1	1	-	-			1			1
Mov Cap-1 Maneuver	*603	-	-	*898	*898	-	-	*23	*6	*615	*~ 24	*6	*488
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	*23	*6	-	*~ 24	*6	-
Stage 1	-	-	-	-	-	-	-	*562	*534	-	*444	*462	-
Stage 2	-	-	-	-	-	-	-	*381	*462	-	*535	*523	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	88.9	$ 693.5
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	79	* 603	-	-	* 898	-	-	66
HCM Lane V/C Ratio	0.496	0.12	-	-	0.036	-	-	2.218
HCM Control Delay (s)	88.9	11.8	-	-	9.2	-	-	$ 693.5
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2.1	0.4	-	-	0.1	-	-	14

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1128	341	1308	924	669
v/c Ratio	0.50	0.34	0.58	0.91	0.42
Control Delay	11.3	10.1	3.5	50.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	10.1	3.6	50.0	0.8
Queue Length 50th (ft)	196	98	42	314	0
Queue Length 95th (ft)	245	149	48	#433	0
Internal Link Dist (ft)	835		176	192	
Turn Bay Length (ft)					
Base Capacity (vph)	2244	1004	2266	1017	1583
Starvation Cap Reductn	0	0	31	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.50	0.34	0.59	0.91	0.42

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												
Traffic Volume (vph)	0	1105	334	0	1282	0	0	0	0	23	883	656
Future Volume (vph)	0	1105	334	0	1282	0	0	0	0	23	883	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4	3.4		3.4						4.8	4.0
Lane Util. Factor		0.95	1.00		0.95						0.95	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						1.00	1.00
Satd. Flow (prot)		3539	1583		3574						3537	1583
Flt Permitted		1.00	1.00		1.00						1.00	1.00
Satd. Flow (perm)		3539	1583		3574						3537	1583
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	1128	341	0	1308	0	0	0	0	23	901	669
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1128	341	0	1308	0	0	0	0	0	924	669
Heavy Vehicles (%)	0%	2%	2%	0%	1%	0%	0%	0%	0%	0%	2%	2%
Turn Type		NA	Prot		NA					Split	NA	Free
Protected Phases		2	2		2					4	4	
Permitted Phases												Free
Actuated Green, G (s)		65.0	65.0		65.0						27.5	105.0
Effective Green, g (s)		66.6	66.6		66.6						30.2	105.0
Actuated g/C Ratio		0.63	0.63		0.63						0.29	1.00
Clearance Time (s)		5.0	5.0		5.0						7.5	
Vehicle Extension (s)		3.0	3.0		3.0						3.0	
Lane Grp Cap (vph)		2244	1004		2266						1017	1583
v/s Ratio Prot		0.32	0.22		c0.37						c0.26	
v/s Ratio Perm												0.42
v/c Ratio		0.50	0.34		0.58						0.91	0.42
Uniform Delay, d1		10.3	8.9		11.1						36.1	0.0
Progression Factor		1.00	1.00		0.23						1.00	1.00
Incremental Delay, d2		0.8	0.9		0.9						11.5	0.8
Delay (s)		11.1	9.9		3.5						47.6	0.8
Level of Service		B	A		A						D	A
Approach Delay (s)		10.8			3.5			0.0			28.0	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1170	1276	252	485	311
v/c Ratio	0.52	0.56	0.25	0.48	0.19
Control Delay	3.0	12.1	9.1	32.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	12.1	9.1	32.9	0.3
Queue Length 50th (ft)	31	235	67	141	0
Queue Length 95th (ft)	m35	291	107	192	0
Internal Link Dist (ft)	176	1252		171	
Turn Bay Length (ft)			200		
Base Capacity (vph)	2244	2266	1014	1005	1599
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	0.52	0.56	0.25	0.48	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												
Traffic Volume (vph)	0	1123	0	0	1225	242	52	414	299	0	0	0
Future Volume (vph)	0	1123	0	0	1225	242	52	414	299	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.4			3.4	3.4		4.8	4.0			
Lane Util. Factor		0.95			0.95	1.00		0.95	1.00			
Frt		1.00			1.00	0.85		1.00	0.85			
Flt Protected		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (prot)		3539			3574	1599		3497	1599			
Flt Permitted		1.00			1.00	1.00		0.99	1.00			
Satd. Flow (perm)		3539			3574	1599		3497	1599			
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)	0	1170	0	0	1276	252	54	431	311	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1170	0	0	1276	252	0	485	311	0	0	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	1%	0%	3%	1%	0%	0%	0%
Turn Type		NA			NA	Perm	Split	NA	Free			
Protected Phases		2			2		4	4				
Permitted Phases						2			Free			
Actuated Green, G (s)		65.0			65.0	65.0		27.5	105.0			
Effective Green, g (s)		66.6			66.6	66.6		30.2	105.0			
Actuated g/C Ratio		0.63			0.63	0.63		0.29	1.00			
Clearance Time (s)		5.0			5.0	5.0		7.5				
Vehicle Extension (s)		3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)		2244			2266	1014		1005	1599			
v/s Ratio Prot		0.33			c0.36			c0.14				
v/s Ratio Perm						0.16			0.19			
v/c Ratio		0.52			0.56	0.25		0.48	0.19			
Uniform Delay, d1		10.5			10.9	8.3		30.9	0.0			
Progression Factor		0.21			1.00	1.00		1.00	1.00			
Incremental Delay, d2		0.8			1.0	0.6		0.4	0.3			
Delay (s)		2.9			11.9	8.9		31.3	0.3			
Level of Service		A			B	A		C	A			
Approach Delay (s)		2.9			11.4			19.2			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	105.0	Sum of lost time (s)	8.2
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			