WELLS + ASSOCIATES

N29 WILLOWWOOD

TRAFFIC IMPACT STUDY

CITY OF FAIRFAX, VIRGINIA

April 28, 2023

N29 WILLOWWOOD

Traffic Impact Study

City of Fairfax, Virginia

April 28, 2023

Prepared for:

Capital City Real Estate

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SECTION 1
INTRODUCTION

This report presents the results of a traffic impact study conducted in support of the proposed development of N29 Willowwood, located in the City of Fairfax, Virginia. The site is currently developed with 556,310 S.F. of general office uses in four (4) buildings served by surface parking.

The subject site (Willowwood Plaza) is located north side of Eaton Place, between Chain Bridge Road (Route 123) and Fairfax Boulevard (US Route 50) in the City of Fairfax, Virginia, as shown on Figure 1-1.

The Applicant, Capital City Real Estate proposes to rezone the site from CR (Commercial Retail) to CU (Commercial Urban) and construct 268 residential multifamily units (N29 Apartments) and 1,981 S.F. of ground-level retail space on the southwest side of the property in phase 1 and 50 two-over-two units (townhouses) (N29 Residences) on southeast portion of the site in phase 2. Structured parking would be provided on both parcels to accommodate the existing and proposed development. Vehicular access would be provided via the existing driveways currently serving the site on Eaton Place. For analysis purposes, both phases of the site was assumed to be fully built and occupied by 2026.

This study was conducted in accordance with a scoping agreement developed with City of Fairfax staff. The study scope was determined with City staff based on a review of key study intersections and roadways that would potentially be affected by the proposed development and the number of new vehicle trips expected to be generated by the site. The site will be developed in two (2) phases and is expected to be complete by 2026.

According to the 24VAC30-155 (“Chapter 870”) regulations, all development proposals which meet certain specific trip generation thresholds are subject to the regulations as outlined in the Virginia Department of Transportation’s (VDOT) Traffic Impact Analysis Regulations Administrative Guidelines (“Administrative Guidelines”). In January 2012, an amendment to the Administrative Guidelines took effect, which determined a development proposal is considered to substantially impact the transportation network if it generates 5,000 or more net new daily vehicle trips located on, or within 3,000 feet of, a VDOT maintained roadway. Based on the trips anticipated to be generated by the subject development, the development would not require a VDOT Chapter 870 compliant traffic study.

Although a traffic impact analysis is not required per 24VAC30-155, the City of Fairfax has requested the submission of a traffic study in conjunction with this development application.

Based on the traffic study scoping form provided in Appendix A, tasks undertaken to prepare this study included the following:

1. Reviewed the applicant's conceptual plans for the subject site.
2. Field reviewed the subject site in order to determine existing roadway and intersection geometrics and traffic controls, access opportunities and/or constraints, and general traffic conditions.
3. Conducted peak hour turning movement counts at the following study intersections:
    - Chain Bridge Road (Route 123)/Eaton Place/Service Roads
    - Fairfax Boulevard (US Route 50)/Eaton Place
    - Eaton Place/Willowwood Plaza Site Driveways (four locations)
4. Adjusted the existing traffic counts to establish baseline conditions.
5. Calculated existing AM and PM commuter peak hour intersection levels of service at the study intersections.
6. Identified the number of net new peak hour trips that would be generated by the proposed development based on standard Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition manual rates and equations.
7. Determined future background traffic forecasts based on regional traffic growth and estimates of traffic that would be generated by other approved/planned developments in the site vicinity.
8. Calculated future levels of service with and without the proposed development at the key study intersections for a proposed buildout year of 2026.
9. Prepared an alternative analysis that evaluates the potential modification of Eaton Place from its existing four-lane undivided configuration to a three (3) lane roadway with a center left turn lane and dedicated bicycle lanes.

Sources of data for this analysis include traffic counts conducted by Wells + Associates Inc., information obtained from the City of Fairfax, the Institute of Transportation Engineers (ITE), VDOT, the Highway Capacity Manual 2000 (Synchro software, version 11), Hickok Cole, Cozen O'Connor, christopher consultants, Capital City Real Estate, and the files and library of Wells + Associates.

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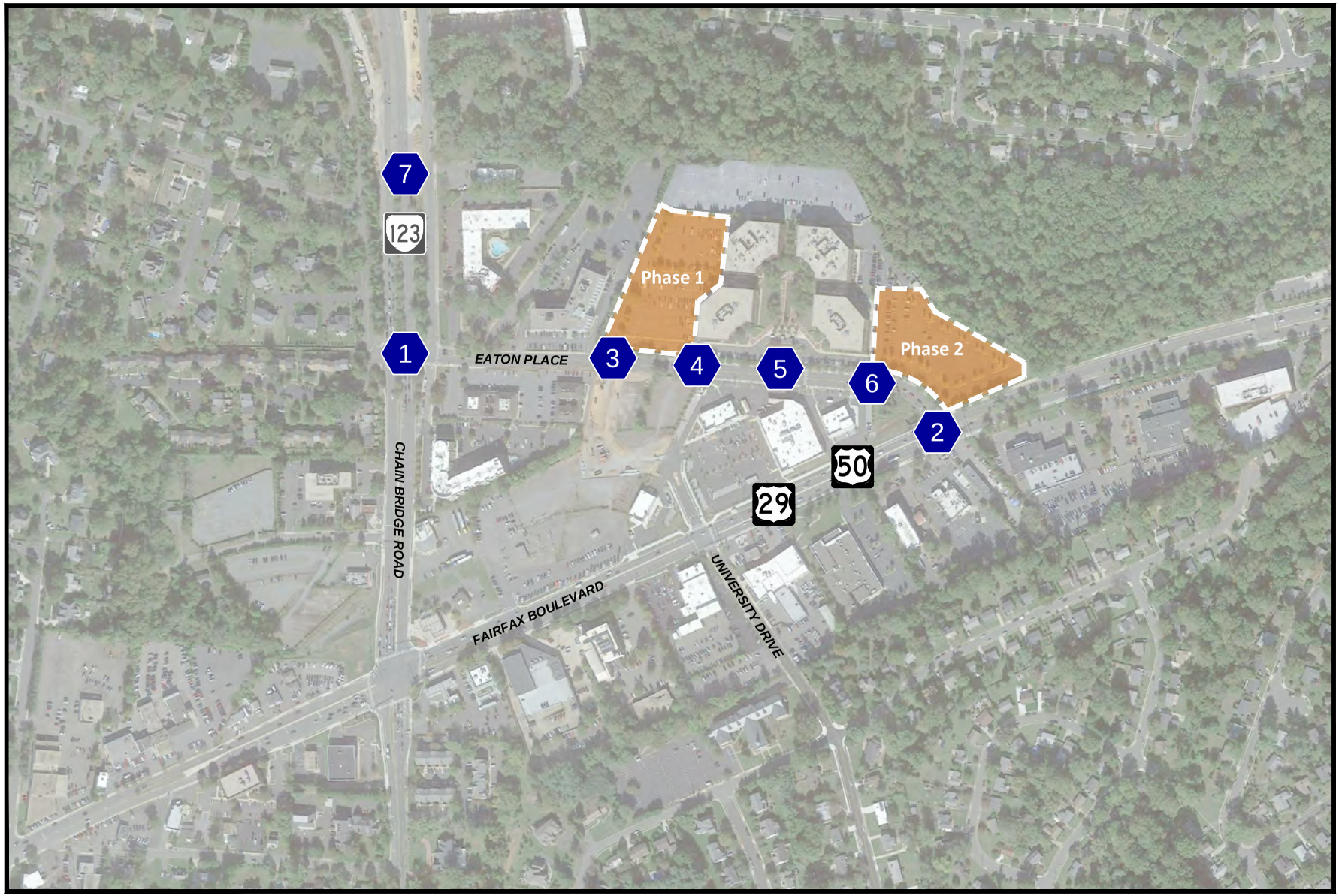

Figure 1-1
Site Location and Study Intersections

X Study Intersection

NORTH

N29 Willowwood
City of Fairfax, Virginia

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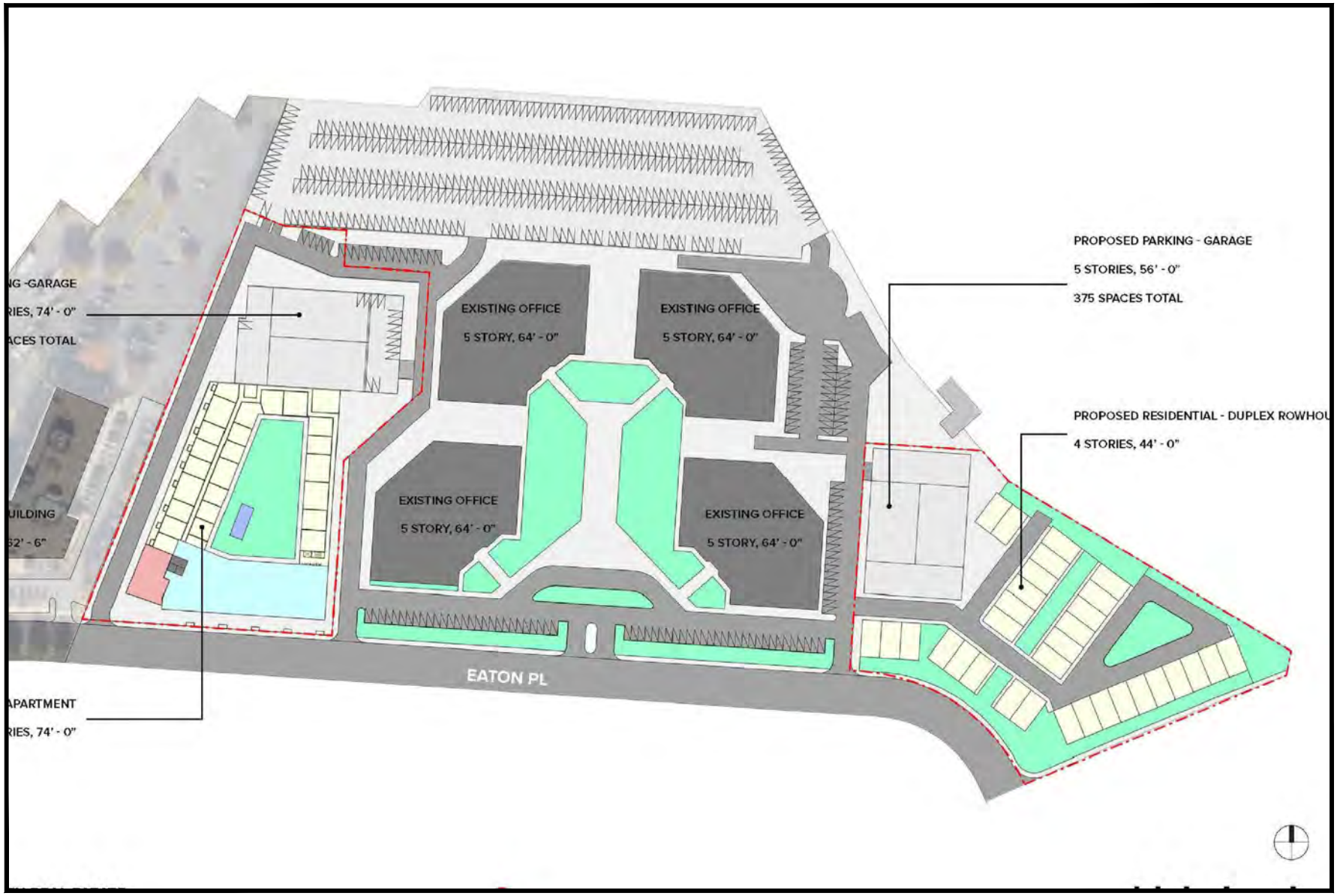

PLAN PROVIDED BY: HICKOK COLE

Figure 1-2
Proposed Development Plan

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 2
BACKGROUND INFORMATION

Site Location and Surrounding Uses

Regional access to the site area is provided via a full-movement interchange on Interstate 66 at Chain Bridge Road (Route 123) just northwest of the site. Local access is provided by Fairfax Boulevard (US Route 50) and four (4) driveways on Eaton Place.

The site is bordered on the north and east by open space that provides a buffer between the site and residential areas. Commercial uses are located on properties immediately west of the site and on the south side of Eaton Place.

Comprehensive Plan Land Use Recommendations

The City's 2035 Comprehensive Plan (Figure 2-1) identifies the site as part of the Northfax Activity Center Small Area Plan. The Plan recommends a mix of office retail, and multifamily residential uses on the site and within the area to increase internal trip making.

Existing Transportation Network

Existing Road Network. The following are descriptions of the roadways in the vicinity of the proposed development.

Chain Bridge Road (Route 123) is classified as an arterial roadway according to the City of Fairfax Comprehensive Plan. Chain Bridge Road is constructed as a six-lane, divided roadway with a posted speed limit of 30 miles per hour. Traffic signals are provided at major cross-streets including Eaton Place and Fairfax Boulevard (US Route 50). Service roads are also provided on both sides of Chain Bridge Road at the Eaton Place intersection. Based on 2020 VDOT average annual daily traffic (AADT) data, Chain Bridge Road carries approximately 31,000 vehicles per day (vpd).

Fairfax Boulevard (US Routes 29/50) is classified as an arterial roadway according to the City of Fairfax Comprehensive Plan. Within the vicinity of the subject site, Fairfax Boulevard is constructed as a four-lane, divided roadway with separate turn lanes provided at major intersections. It has a posted speed limit of 35 miles per hour and a traffic signal is provided at Eaton Place. Based on 2020 VDOT average annual daily traffic (AADT) data, Fairfax Boulevard east of Chain Bridge Road carries approximately 27,000 vehicles per day (vpd).

Eaton Place is a local street and is constructed as a four-lane, undivided roadway with a posted speed limit of 25 miles per hour. This roadway provides four (4) access driveways that currently serve the Willowwood Plaza property.

Existing lane use and traffic control at each of the study intersections is shown on Figure 2-2.

Public Transit Service. The site is served by the City of Fairfax's City-University Energysaver (CUE) Bus "Green Route" along Eaton Place and the "Gold Route" along Fairfax Boulevard within the immediate vicinity of the site. The Green Route provides service between the GMU campus, Old Town Fairfax, and the Vienna/Fairfax-GMU Metrorail station via University Drive, Chain Bridge Road, Eaton Place, Fairfax Boulevard, Fairfax Circle, Arlington Boulevard, Nutley Street, Virginia Center Boulevard, Old Pickett Road, Pickett Road, Main Street, North Street, and George Mason Boulevard.

The Gold Route provides access between the George Mason University (GMU) campus and the Vienna/Fairfax-GMU Metrorail station, via University Drive, Chain Bridge Road, West Street, Main Street, Lee Highway, Jermantown Road, Orchard Street, Bevan Drive, Warwick Avenue and Fairfax Boulevard. Additionally, the site is served by the "Green Route" which provides service between the GMU campus, Old Town Fairfax, and the Vienna/Fairfax-GMU Metrorail station via University Drive, Chain Bridge Road, West Street, Main Street, Lee Highway, Jermantown Road, Orchard Street, Bevan Drive, Warwick Avenue and Fairfax Boulevard.

Metrobus Route 1C provides service between Fair Oaks Mall and Dunn Loring Metrorail Station. Bus stops are located at the Fairfax Boulevard (Routes 29/50)/Eaton Place intersection.

The existing transit routes are shown on Figure 2-3.

Pedestrian Facilities. A sidewalk is provided along the north side of Eaton Place between Chain Bridge Road (Route 123) and Fairfax Boulevard. Portions of sidewalk exist or are under construction along the south side of the roadway. Marked crosswalks are provided across the south and east legs of the Chain Bridge Road (Route 123)/Eaton Place signalized intersection and on the north and west legs of the Eaton Place/Fairfax Boulevard signalized intersection. Mid-block crosswalks are provided along Eaton Place just east of the main access drive serving the site that connects bus stops on both sides of the street as well as east of the University Boulevard Extension.

Future Transportation Network

As part of the I-66 improvement project, modifications to Chain Bridge Road are proposed. Based on plans provided by City staff, the southbound approach of Chain Bridge Road at Eton Place will be restriped to provide two left turn lanes and two through lanes. In addition, a new traffic signal will be constructed approximately 600 feet to the north of Eaton Place.

The City of Fairfax's Comprehensive Plan provides recommended strategies for improving the City's transportation network. The Plan recommends that the City strive to achieve a balance between allowing for the efficient movement of traffic and providing safe and convenient access to City businesses and residences for vehicles, pedestrians, bicycles, and other modes of transport.

A modification or “Road Diet” is recommended for Eaton Place to be modified from its existing four-lane undivided section to a three-lane road with a center left turn lane and bicycle lanes. This potential modification has been evaluated as part of this study.

Further, the site access roads that surround the site and those located on the south side of Eaton Place that are located within the Northfax Activity Center are planned as future “active streets” that are designed to provide major connectivity for pedestrians and vehicles for the properties in the area. The western most driveway and street within Willowwood Plaza is designated as a “linear park street” and contain the linear park greenway and are planned to include elements such as curb-less sections, provide for two-way traffic, bicycle facilities, and sidewalks. In addition, the area surrounding the site is also designated as a “Concentrated Bicycle Supportive Infrastructure” area that recommends support facilities such as short-term and long-term parking, showers, and changing facilities be provided.

An off-street trail is planned to be provided within the undeveloped open space area on the north and west sides of the site.

The Plan also calls for the establishment of a Transportation Demand Management (TDM) program to reduce overall vehicle trips and parking management strategies to make the best use of parking resources in the area.

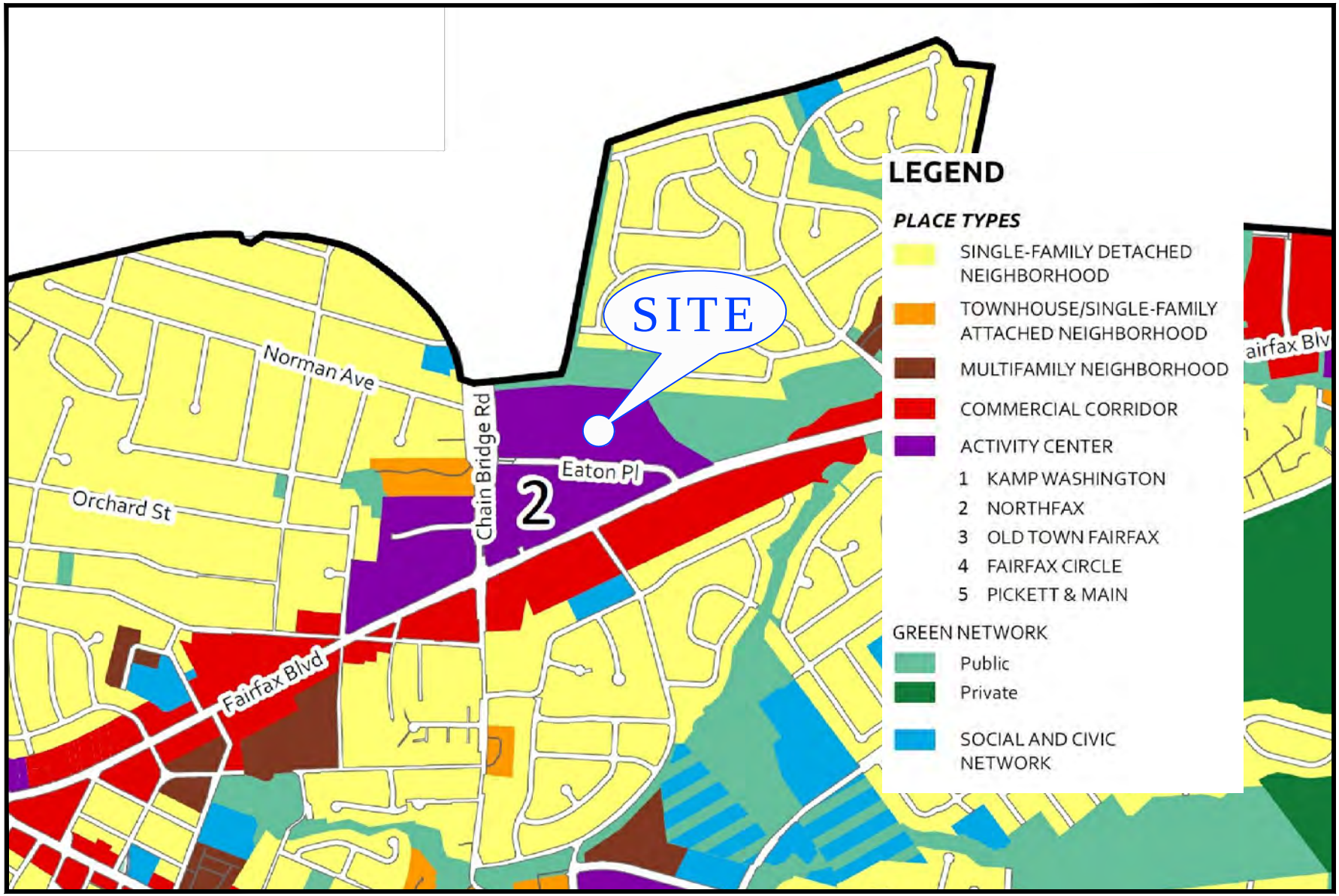

Figure 2-1
Comprehensive Plan Land Use Recommendations

NORTH

N29 Willowwood
City of Fairfax, Virginia

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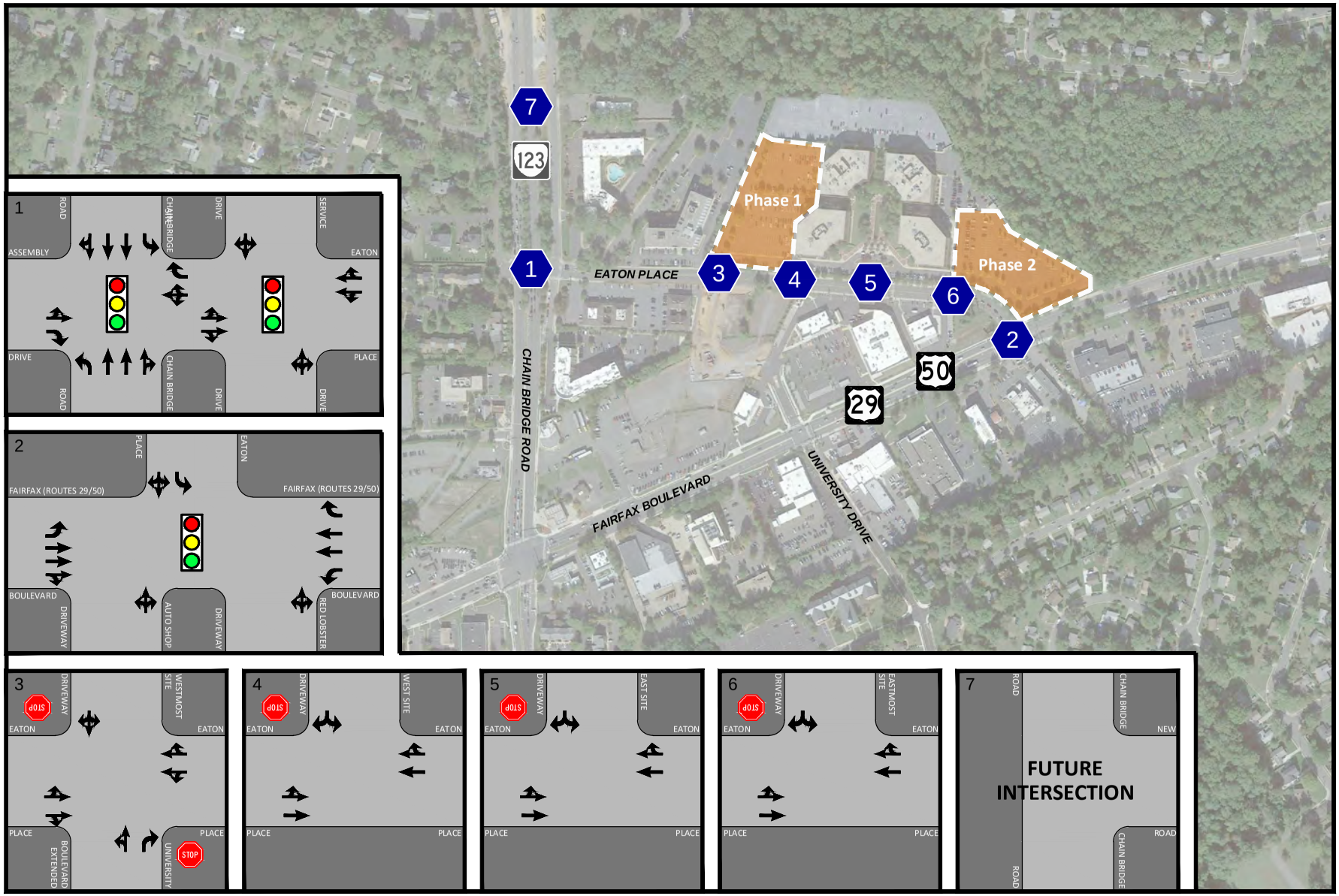

Figure 2-2
Existing Lane Use and Traffic Control

Represents One Travel Lane
Signalized Intersection
Stop Sign

NORTH

N29 Willowwood
City of Fairfax, Virginia

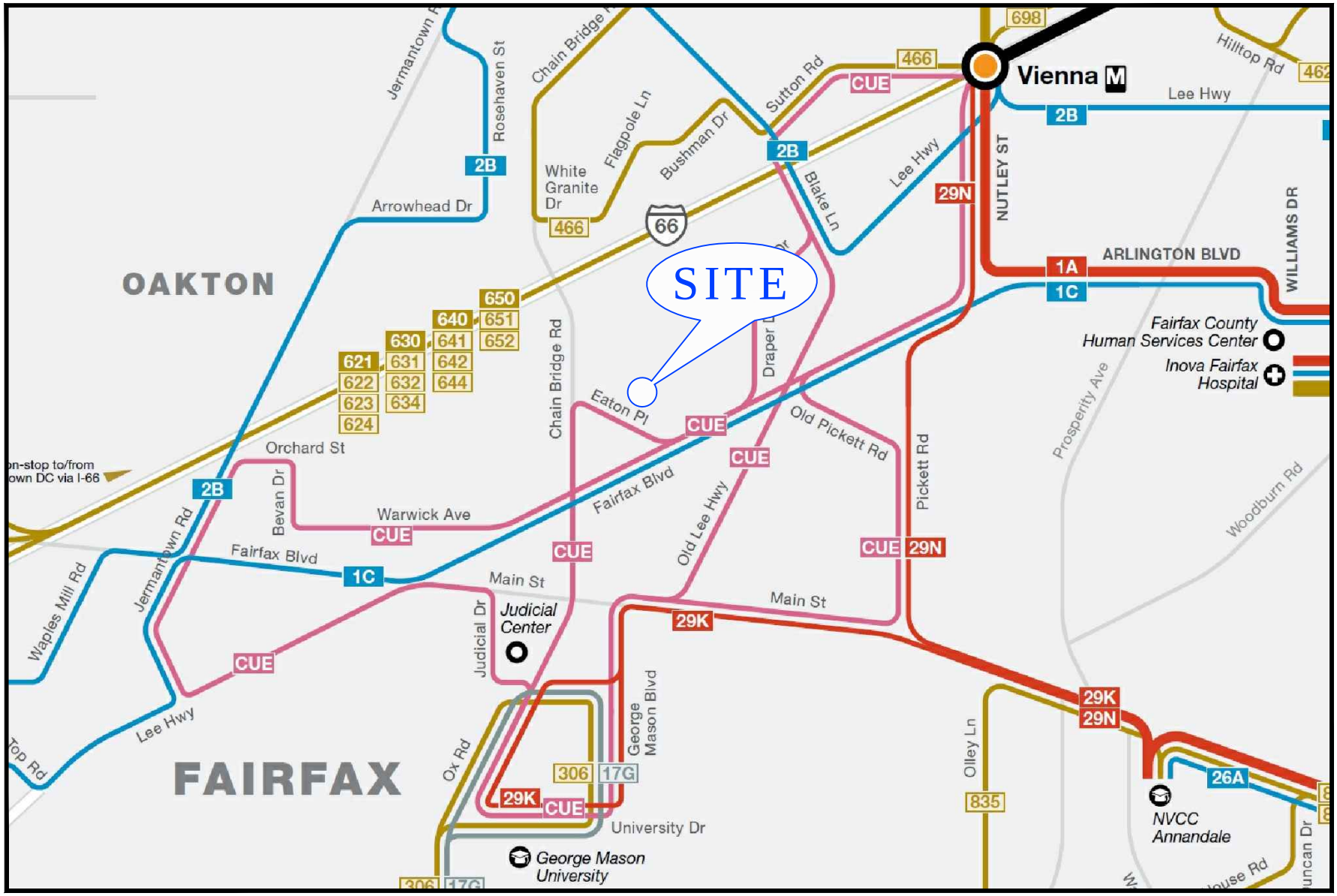

Figure 2-3
Existing Transit Routes

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 3
STUDY SCOPE AND ANALYSIS PARAMETERS

Overview

The subject site is located on the north side of Eaton Place, between Chain Bridge Road (Route 123) and Fairfax Boulevard (US Route 50) in the City of Fairfax, Virginia. The parcel is currently developed with the Willowwood office buildings, consisting of four (4) buildings that total 556,310 S.F. of space and served by surface and garage parking. The subject site is currently zoned CR (Commercial Retail).

The primary objective of this study is to assess the impacts of the proposed development plan on the surrounding street system.

This traffic study was conducted in accordance with the scoping document and discussions with Wells + Associates, City staff, and the Applicant and has been subsequently revised based on plan revisions and discussions with City Staff. A traffic study scoping meeting was held on October 7, 2022, and resulted in a scoping form dated November 14, 2022 that is provided in Appendix A. As previously noted, the development plan includes 268 residential apartments with 1,981 S.F. of ground-level retail and 50 townhouses. Access to the site would remain as currently provided via four (4) driveways on Eaton Place.

Study Area

The study area was determined based on the intersections and roadways that potentially would be affected by implementation of the proposed development plan. The following intersections were selected for analysis and evaluation:

- Chain Bridge Road (Route 123)/Eaton Place/Service Roads
- Chain Bridge Road (Route 123)/New Road
- Fairfax Boulevard (US Route 50)/Eaton Place
- Eaton Place/Willowwood Plaza Site Driveways (four locations)/University Boulevard Extended

Site Development Program

The Applicant proposes to develop a portion of the existing surface parking areas to include 268 residential multifamily apartments with 1,981 S.F. of ground-level retail space and 50 residential townhouses.

Analysis Study Periods

The intersections within the study area were analyzed under AM and PM commuter peak hour conditions.

Existing Traffic Volumes

Existing AM and PM commuter peak hour turning movements and pedestrian counts were conducted on Tuesday, May 3, 2022 and Wednesday, November, 16, 2022, at the study intersections from 6:00 AM to 9:00 AM and from 4:00 PM to 7:00 PM. In order to account for the effects of the COVID-19 pandemic these counts were compared to previous traffic counts conducted in 2019 and summarized below:

	Route 123 (NB/SB)	Route 29/50 (EB/WB)
2019 Peak Hour Thru Volumes	3,572	5,315
2022 Peak Hour Thru Volumes	3,166	4,694
Percent Adjustment	12.8%	13.2%

As shown above, the year 2019 traffic volumes were approximately 13% higher than the current traffic counts, therefore a 13% adjustment factor was applied to through volumes on Chain Bridge Road (Route 123) and Fairfax Boulevard (Route 29/50).

Further, driveway counts were reviewed to understand the usage of the existing office buildings. The traffic counts indicated that the site currently generates 188 AM peak hour trips and 185 PM peak hour trips. As shown in Table 3-1, the ITE Trip Generation 11th Edition rate/equations estimate that 556,310 GSF of office would generate 735 AM and 690 PM peak hour trips. The net 547 AM and 505 PM peak hour trips were assigned to the road network based on the observed trip distributions. These assignments would conservatively increase traffic volumes for key movements on Eaton Place above historically counted volumes.

The baseline vehicular traffic volumes as described above are provided on Figure 3-1. All existing count data and adjustments are included in Appendix B.

Table 3-1
N29 Willowwood
Existing Trip Generation Summary **(1)**

Land Use	Size	Units	ITE Code	Weekday AM Peak Hour In	Out	Total	Weekday PM Peak Hour In	Out	Total	Weekday ADT
Existing Uses										
Willowwood Plaza Office	**556,310**	**GSF**	**710**	**647**	**88**	**735**	**117**	**573**	**690**	**5,164**
Observed Tip Generation				*178*	*10*	*188*	*16*	*169*	*185*	*1,850*
Net Additional Trips				**469**	**78**	**547**	**101**	**404**	**505**	**3,314**

Notes:
(1) Trip Generation based on ITE's Trip Generation, 11th Edition.

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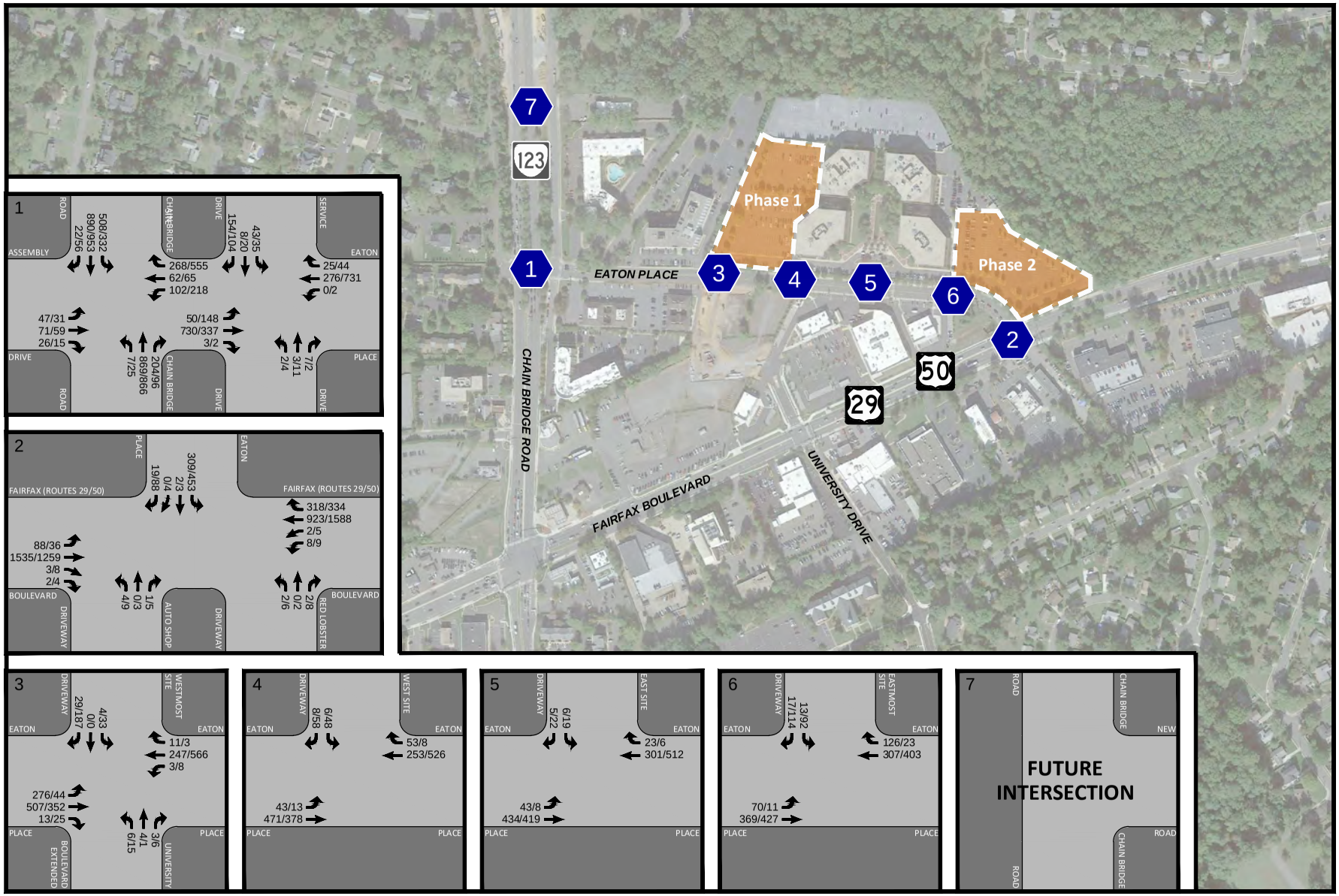

Figure 3-1
Baseline Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 4
EXISTING CONDITIONS ANALYSIS

Existing Intersection Levels of Service

Peak hour levels of service and queues were calculated for the study intersections based on the existing lane use and traffic controls shown on Figure 2-1, the existing traffic volumes shown on Figure 3-1, and the 2000 Highway Capacity Manual (HCM) analysis procedures for signalized and unsignalized intersections. The results are presented in Appendix C and summarized on Tables 4-1 and 4-2.

The analyses indicate the following:

1. The Chain Bridge Road (Route 123)/Eaton Place signalized intersection currently operates at level of service (LOS) "F" during the AM peak hour and LOS "D" during the PM peak hour. The adjacent service streets at Eaton Place operate at LOS "D" and LOS "F" during these periods.

2. The signalized Fairfax Boulevard (US Route 50)/Eaton Place intersection currently operates at level of service (LOS) "C" during the AM peak hour and LOS "D" during the PM peak hour. The side-street approach of Eaton Place operates at LOS "F" during these periods.

3. All approaches at the unsignalized intersections serving the site on Eaton Place currently operate at acceptable levels of service (at LOS "C" or better) during both the AM and PM peak hours with the exception of the northbound approach of University Boulevard Extended that operates at LOS "E".

4. The southbound left turn queue on Chain Bridge Road (Route 123) at Eaton Place would extend past the available storage during the AM peak hour. Sidestreet movements of Eaton Place at Chain Bridge Road (Route 123) and Fairfax Boulevard (U.S. Route 29/50) would extend past existing driveways. Queues at existing unsignalized site driveways on Eaton Place would be three (3) vehicles lengths or less.

Table 4-1
N29 Willowwood
Baseline Intersection Levels of Service Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	2022 Baseline AM	2022 Baseline PM
(1) **Chain Bridge Road (Route 123)**/ Eaton Place/	Signal	EBLTR	F (83.9)	F (144.7)
		WBLT	A (5.2)	A (6.0)
		WBR	A (0.7)	C (20.2)
		NBL	F (95.0)	F (104.7)
		NBTR	F (87.2)	E (57.6)
		SBL	F (290.5)	F (89.4)
		SBTR	D (41.7)	D (42.2)
		Overall	**F (95.3)**	**D (47.7)**
Route 123 Service Drive/ Eaton Place/	Signal	EBLTR	A (3.4)	A (3.7)
		WBLTR	F (80.8)	F (235.4)
		NBLTR	F (90.0)	F (105.0)
		SBLTR	F (191.8)	F (332.7)
		Overall	**D (51.8)**	**F (166.3)**
(2) Fairfax Boulevard (U.S. Route 29/50)/ **Eaton Place/Private Driveways**	Signal	EBL	B (14.5)	C (31.0)
		EBTR	C (20.6)	C (20.9)
		WBL	B (16.1)	B (15.1)
		WBT	C (23.2)	C (33.5)
		WBR	B (19.8)	C (20.2)
		NBLTR	F (93.6)	F (106.7)
		NELTR	F (95.1)	F (107.3)
		SBL	F (108.8)	F (220.3)
		SBLTR	F (107.9)	F (213.0)
		Overall	**C (30.3)**	**D (54.9)**
(3) Eaton Place/ **Westmost Driveway/ University Drive Extended**	Stop Sign	EBLT	A [6.0]	A [2.2]
		WBLT	A [0.2]	A [0.3]
		NBLT	E [47.1]	E [35.4]
		NBR	A [8.9]	A [8.9]
		SBLTR	B [12.5]	C [18.1]
(4) Eaton Place/ **West Driveway**	Stop Sign	EBLT	A [2.1]	A [0.9]
		SBLR	B [11.6]	C [16.3]
(5) Eaton Place/ **Middle Driveway**	Stop Sign	EBLT	A [2.2]	A [0.6]
		SBLR	B [12.9]	B [14.3]
(6) Eaton Place/ **East Driveway**	Stop Sign	EBLT	A [3.6]	A [0.7]
		SBLR	B [13.8]	C [18.0]
(7) **Chain Bridge Road (Route 123)**/ New Road	Signal	WBL	-	-
		WBR	-	-
		NBTR	-	-
		SBL	-	-
		SBT	-	-
		Overall	-	-

Notes:
(1) Analysis performed using Synchro software, version 110
(2) Values in parentheses, ( ), represent signalized delay in seconds
(3) Values in brackets, [ ], represent unsignalized delay in seconds
(4) * - Delay exceeds 999 seconds
(5) Roadway names in bold are considered north/south for purposes of this analysis.

Table 4-2
N29 Willowwood
Intersection Queuing Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	Available Storage (ft)	2022 Baseline AM 50th %	2022 Baseline AM 95th %	2022 Baseline PM 50th %	2022 Baseline PM 95th %
(1) **Chain Bridge Road (Route 123)**/	Signal	EBLTR	-	180	269	156	#288
Eaton Place/		WBLT	-	17	m28	90	m2
		WBR	-	1	m0	93	m0
		NBL	190	9	28	37	77
		NBTR	-	520	#610	429	479
		SBL	1000	~875	#1123	338	#570
		SBTR	800	298	390	391	446
Route 123 Service Drive/	Signal	EBLTR	-	30	m31	23	m24
Eaton Place/		WBLTR	-	190	265	~868	#950
		NBLTR	-	6	32	26	61
		SBLTR	-	~278	#486	~308	#474
(2) Fairfax Boulevard (U.S. Route 29/50)/	Signal	EBL	260	27	85	19	39
Eaton Place/Private Driveways		EBTR	-	256	635	395	465
		WBL	140	3	16	7	19
		WBT	-	295	593	1021	1226
		WBR	-	64	201	145	241
		NBLTR	-	5	18	26	59
		SBL	-	242	m303	~561	m#768
		SBLTR	-	236	m292	~526	m#732
		NEBLTR	-	7	26	26	59
(3) Eaton Place/	Stop Sign	EBLT	-	-	26	-	4
Westmost Driveway		WBLT	-	-	0	-	1
		NBLT	-	-	9	-	10
		NBR	-	-	0	-	1
		SBLTR	-	-	6	-	63
(4) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1
West Driveway		SBLR	-	-	2	-	27
(5) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1
Middle Driveway		SBLR	-	-	2	-	9
(6) Eaton Place/	Stop Sign	EBLT		-	6	-	1
East Driveway		SBLR		-	6	-	59
(7) **Chain Bridge Road (Route 123)**/	Signal	WBL	-	-	-	-	-
New Road		WBR	-	-	-	-	-
		NBTR	-	-	-	-	-
		SBL	200	-	-	-	-
		SBT		-	-	-	-

Notes:
(1) Analysis performed using Synchro software, version 11
(2) "~" - 50th percentile volume exceeds capacity, queue may be longer.
(3) "#" - 95th percentile volume exceeds capacity, queue may be longer.
(4) "m" - Volume for 95th percentile queue is metered by upstream signal.
(5) Roadway names in bold are considered north/south for purposes of this analysis.

SECTION 5
ANALYSIS OF FUTURE CONDITIONS WITHOUT SITE DEVELOPMENT

Overview

Forecasts for traffic conditions without the development of the Willowwood Plaza Property were estimated at the study intersections based on a composite of baseline traffic volumes, regional traffic growth, and pipeline development trips as described below. Future levels of service under these forecasted conditions were evaluated at the study intersections for the anticipated buildout year of 2026.

Regional Traffic Growth

A review of VDOT AADT volumes along Fairfax Boulevard and Main Street in the vicinity of the site indicates little to no growth in traffic volumes over recent years. AADT volumes along Fairfax Boulevard declines from 40,000 vehicles in 2016 to 37,000 vehicles in 2019 while traffic volumes on Chain Bridge Road grew slightly from 38,000 vehicles in 2016 to 39,000 vehicles in 2019.

Based on these findings, existing traffic volumes were increased by 0.50% per year to the anticipated buildout of the site in 2026 and are shown on Figure 5-1.

Traffic from Other Approved/Pending Developments

At the request of City staff, the following approved/pending developments were included as approved (i.e., “pipeline”) developments:

- Breezeway Property
    - 62 Residential Townhouses
    - 10,010 SF Shopping Center

- Northfax Development
    - 56 Multifamily Dwelling Units
    - 200 Continuing Care Units

- Paul VI Redevelopment
    - 259 Residential Condominiums/Townhouses
    - 7 Single Family Dwelling Units
    - 24,000 SF of Community Space
    - 20,000 SF of Retail Space

As shown in Table 5-1, these pipeline developments are anticipated to generate 307 AM peak commuter hour trips and 617 PM commuter peak hour trips at full buildout.

Background Traffic Forecasts

The existing traffic volumes depicted on Figure 3-1, regional traffic growth shown on Figure 5-1, and the pipeline trip assignments shown on Figure 5-2 were added together to yield the background future traffic forecasts at the study intersections, shown on Figure 5-3.

Background Future Levels of Service

Peak hour levels of service and queues were calculated for the study intersections based on the future lane use and traffic controls shown on Figure 5-4, background future traffic forecasts, and the 2000 Highway Capacity Manual (HCM) analysis procedures for signalized and unsignalized intersections. The results are provided in Appendix D, and summarized in Tables 5-2 and 5-3.

The analyses indicate the following:

1. The Chain Bridge Road (Route 123)/Eaton Place signalized intersection would operate at level of service (LOS) "E" during the AM peak hour and LOS "D" during the PM peak hour with the installation of dual southbound left turn lanes. The adjacent service streets at Eaton Place would continue to operate at LOS "D" and LOS "F" during these periods.

2. The signalized Fairfax Boulevard (US Route 50)/Eaton Place intersection would operate at level of service (LOS) "C" during the AM peak hour and LOS "E" during the PM peak hour. The side-street approach of Eaton Place operates at LOS "F" during these periods.

3. All approaches at the unsignalized intersections serving the site on Eaton Place would continue to operate at acceptable levels of service (at LOS "C" or better) during both the AM and PM peak hours with the exception of the northbound approach of University Boulevard Extended that would operate at LOS "E".

4. The planned signalized intersection north of Eaton Place on Chain Bridge Road (Route 123) would operate at overall level of service "B" or better during both peak periods. Side-street and left-turning movements would experience higher delays due to the long corridor signal cycle lengths.

5. The planned improvements at Chain Bridge Road (Route 123)/Eaton Place would reduce southbound-left turn queues to below 400 feet and could be accommodated within the proposed storage. Other queues would increase when compared to existing conditions due to regional growth and pipeline developments.

Table 5-1
N29 Willowwood
Pipeline Trip Generation Summary **(1)**

Land Use	Weekday AM Peak Hour In	Out	Total	Weekday PM Peak Hour In	Out	Total	Weekday ADT
Pipeline Development:							
Breezeway Property	**13**	**27**	**40**	**74**	**66**	**140**	**1,644**
62 Residential Townhouses							
10,010 SF Shopping Center							
Northfax West Development	**23**	**28**	**51**	**31**	**31**	**62**	**801**
56 Multifamily Dwelling Units							
200 Continuing Care Units							
Paul VI Redevelopment	**71**	**145**	**216**	**202**	**213**	**415**	**4,961**
259 Residential Condominiums/Townhouses							
7 Single Family Dwelling Units							
24,000 SF of Community Space							
20,000 SF of Retail Space							
Total Pipeline Development Trips	**107**	**200**	**307**	**307**	**310**	**617**	**7,406**

Notes:
(1) Trip Generation based previously prepared traffic studies.

Table 5-2
N29 Willowwood
Background Future Intersection Levels of Service Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	2022 Baseline AM	2022 Baseline PM	2026 Background Future AM	2026 Background Future PM
(1) **Chain Bridge Road (Route 123)**/ Eaton Place/	Signal	EBLTR	F (83.9)	F (144.7)	F (83.9)	F (126.0)
		WBLT	A (5.2)	A (6.0)	A (3.0)	A (6.1)
		WBR	A (0.7)	C (20.2)	A (0.7)	C (30.4)
		NBL	F (95.0)	F (104.7)	F (92.7)	F (104.7)
		NBTR	F (87.2)	E (57.6)	F (101.8)	E (56.7)
		SBL	F (290.5)	F (89.4)	F (241.4)	F (91.8)
		SBTR	D (41.7)	D (42.2)	D (51.2)	D (41.2)
		Overall	**F (95.3)**	**D (47.7)**	**F (94.5)**	**D (48.3)**
With Proposed Changes to Southbound Approach **(2 Left Lanes and 2 Thru Lanes)**		EBLTR	-	-	F (83.9)	F (126.0)
		WBLT	-	-	A (3.0)	A (6.1)
		WBR	-	-	A (0.7)	C (30.4)
		NBL	-	-	F (92.7)	F (104.7)
		NBTR	-	-	F (94.5)	D (54.9)
		SBL	-	-	E (79.6)	F (102.4)
		SBTR	-	-	E (60.0)	D (48.5)
		Overall	**-**	**-**	**E (69.9)**	**D (51.1)**
Route 123 Service Drive/ Eaton Place/	Signal	EBLTR	A (3.4)	A (3.7)	A (3.8)	A (3.4)
		WBLTR	F (80.8)	F (235.4)	F (83.0)	F (244.2)
		NBLTR	F (90.0)	F (105.0)	F (90.0)	F (105.2)
		SBLTR	F (191.8)	F (332.7)	F (96.6)	F (125.0)
		Overall	**D (51.8)**	**F (166.3)**	**D (35.5)**	**F (155.8)**
(2) Fairfax Boulevard (U.S. Route 29/50)/ **Eaton Place/Private Driveways**	Signal	EBL	B (14.5)	C (31.0)	B (15.5)	D (38.7)
		EBTR	C (20.6)	C (20.9)	C (21.7)	C (21.5)
		WBL	B (16.1)	B (15.1)	B (17.2)	B (15.5)
		WBT	C (23.2)	C (33.5)	C (24.5)	D (37.0)
		WBR	B (19.8)	C (20.2)	C (20.7)	C (20.5)
		NBLTR	F (93.6)	F (106.7)	F (93.6)	F (106.7)
		NELTR	F (95.1)	F (107.3)	F (95.1)	F (107.3)
		SBL	F (108.8)	F (220.3)	F (107.2)	F (227.4)
		SBLTR	F (107.9)	F (213.0)	F (106.1)	F (218.5)
		Overall	**C (30.3)**	**D (54.9)**	**C (31.0)**	**E (56.5)**
(3) Eaton Place/ **Westmost Driveway/ University Drive Extended**	Stop Sign	EBLT	A [6.0]	A [2.2]	A [6.0]	A [2.2]
		WBLT	A [0.2]	A [0.3]	A [0.2]	A [0.3]
		NBLT	E [47.1]	E [35.4]	E [49.0]	E [36.5]
		NBR	A [8.9]	A [8.9]	A [8.9]	A [9.0]
		SBLTR	B [12.5]	C [18.1]	B [12.7]	C [18.5]
(4) Eaton Place/ **West Driveway**	Stop Sign	EBLT	A [2.1]	A [0.9]	A [2.0]	A [0.9]
		SBLR	B [11.6]	C [16.3]	B [11.5]	C [16.4]
(5) Eaton Place/ **Middle Driveway**	Stop Sign	EBLT	A [2.2]	A [0.6]	A [2.2]	A [0.6]
		SBLR	B [12.9]	B [14.3]	B [13.0]	B [14.5]
(6) Eaton Place/ **East Driveway**	Stop Sign	EBLT	A [3.6]	A [0.7]	A [3.6]	A [0.7]
		SBLR	B [13.8]	C [18.0]	B [14.0]	C [18.4]
(7) **Chain Bridge Road (Route 123)**/ New Road	Signal	WBL	-	-	F (84.4)	F (99.5)
		WBR	-	-	F (84.5)	F (99.6)
		NBTR	-	-	C (30.2)	A (3.2)
		SBL	-	-	F (96.8)	F (109.1)
		SBT	-	-	A (3.0)	A (2.7)
		Overall	**-**	**-**	**B (18.5)**	**A (7.7)**

Notes:
(1) Analysis performed using Synchro software, version 110
(2) Values in parentheses, ( ), represent signalized delay in seconds
(3) Values in brackets, [ ], represent unsignalized delay in seconds
(4) * - Delay exceeds 999 seconds
(5) Roadway names in bold are considered north/south for purposes of this analysis.

Table 5-3
N29 Willowwood
Background Future Intersection Queuing Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	Available Storage (ft)	2022 Baseline AM 50th %	2022 Baseline AM 95th %	2022 Baseline PM 50th %	2022 Baseline PM 95th %	2026 Background Future AM 50th %	2026 Background Future AM 95th %	2026 Background Future PM 50th %	2026 Background Future PM 95th %
(1) **Chain Bridge Road (Route 123)**/	Signal	EBLTR	-	180	269	156	#288	180	269	156	#288
Eaton Place/		WBLT	-	17	m28	90	m2	7	m12	104	m0
		WBR	-	1	m0	93	m0	0	m0	93	m0
		NBL	190	9	28	37	77	14	39	44	87
		NBTR	-	520	#610	429	479	562	#684	431	494
		SBL	400	~875	#1123	338	#570	258	325	115	170
		SBTR	800	298	390	391	446	583	764	720	570
With Proposed Changes to Southbound Approach		EBLTR	-	-	-	-	-	180	269	156	#288
(2 Left Lanes and 2 Thru Lanes)		WBLT	-	-	-	-	-	7	m12	104	m0
		WBR	-	-	-	-	-	0	m0	93	m0
		NBL	190	-	-	-	-	14	39	44	87
		NBTR	-	-	-	-	-	~587	#684	461	522
		SBL	400	-	-	-	-	312	384	224	287
		SBTR	800	-	-	-	-	583	764	720	570
Route 123 Service Drive/	Signal	EBLTR	-	30	m31	23	m24	m39	47	21	27
Eaton Place/		WBLTR	-	190	265	~868	#950	197	487	~891	#970
		NBLTR	-	6	32	26	61	6	120	26	61
		SBLTR	-	~278	#486	~308	#474	#331	220	101	#173
(2) Fairfax Boulevard (U.S. Route 29/50)/	Signal	EBL	260	27	85	19	39	28	88	19	42
Eaton Place/Private Driveways		EBTR	-	256	635	395	465	278	689	437	512
		WBL	140	3	16	7	19	3	16	7	19
		WBT	-	295	593	1021	1226	316	641	1174	1408
		WBR	-	64	201	145	241	70	216	158	257
		NBLTR	-	5	18	26	59	5	18	26	59
		SBL	-	242	m303	~561	m#768	244	m314	~581	#814
		SBLTR	-	236	m292	~526	m#732	238	m308	~544	#774
		NEBLTR	-	7	26	26	59	7	26	26	59
(3) Eaton Place/	Stop Sign	EBLT	-	-	26	-	4	-	26	-	4
Westmost Driveway		WBLT	-	-	0	-	1	-	0	-	1
		NBLT	-	-	9	-	10	-	10	-	11
		NBR	-	-	0	-	1	-	0	-	1
		SBLTR	-	-	6	-	63	-	6	-	65
(4) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1	-	3	-	1
West Driveway		SBLR	-	-	2	-	27	-	2	-	27
(5) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1	-	3	-	1
Middle Driveway		SBLR	-	-	2	-	9	-	2	-	9
(6) Eaton Place/	Stop Sign	EBLT		-	6	-	1	-	6	-	1
East Driveway		SBLR		-	6	-	59	-	6	-	60
(7) **Chain Bridge Road (Route 123)**/	Signal	WBL	-	-	-	-	-	4	15	7	24
New Road		WBR	-	-	-	-	-	0	52	0	67
		NBTR	-	-	-	-	-	542	m605	428	546
		SBL	200	-	-	-	-	59	109	84	142
		SBT		-	-	-	-	96	230	90	231

Notes:
(1) Analysis performed using Synchro software, version 11
(2) "~" - 50th percentile volume exceeds capacity, queue may be longer.
(3) "#" - 95th percentile volume exceeds capacity, queue may be longer.
(4) "m" - Volume for 95th percentile queue is metered by upstream signal.
(5) Roadway names in bold are considered north/south for purposes of this analysis.

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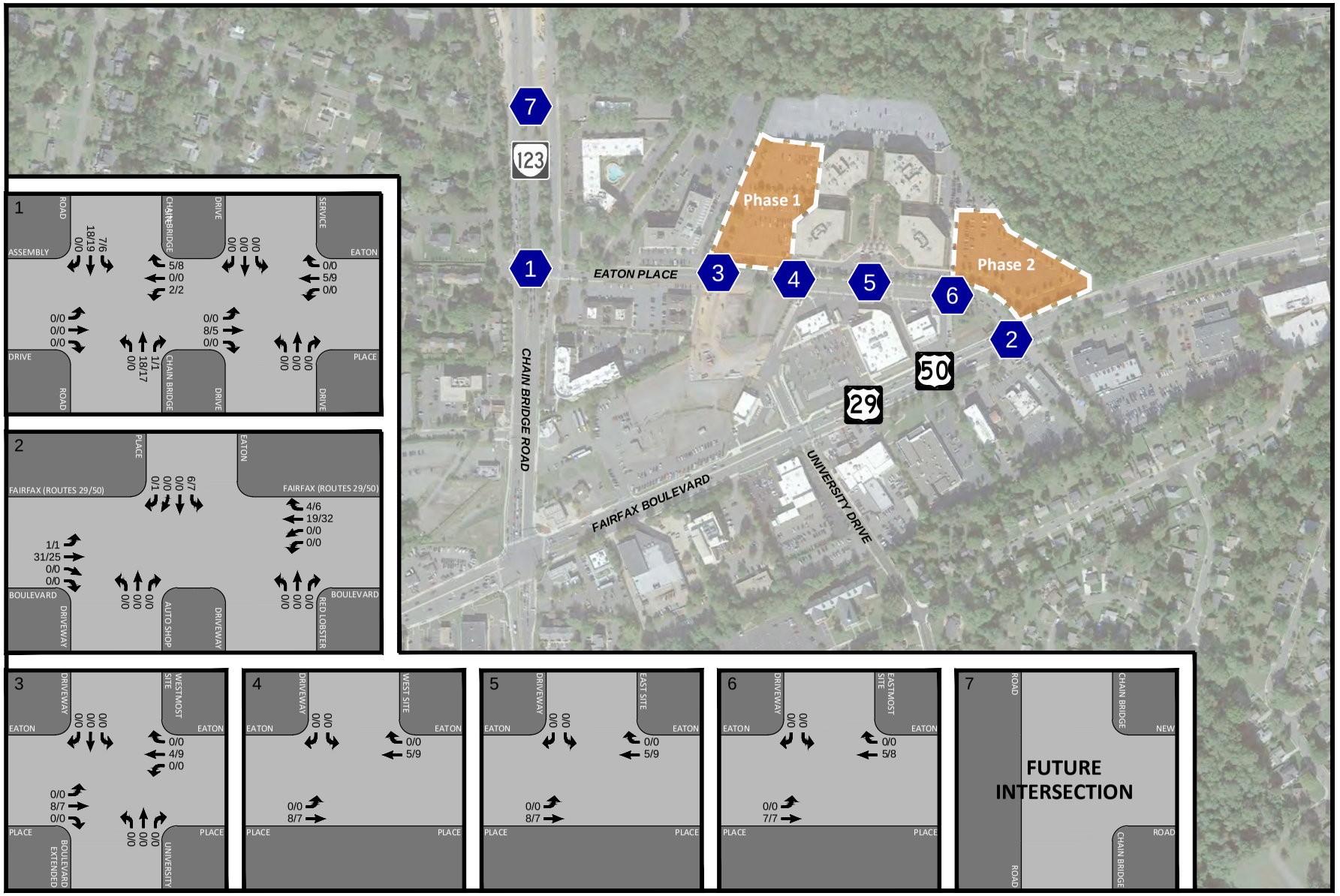

Figure 5-1
Regional Growth

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

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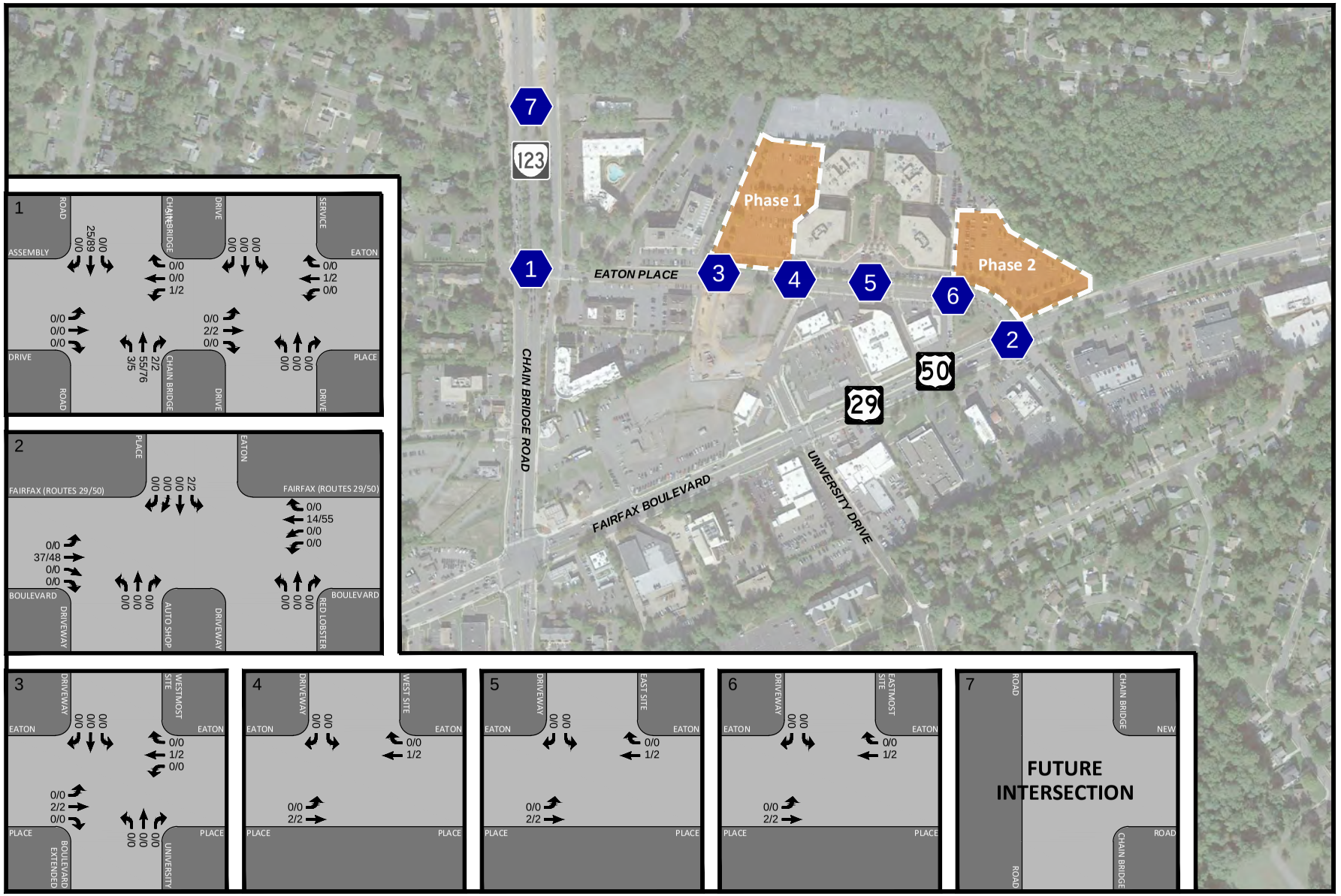

Figure 5-2
Pipeline Trips

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

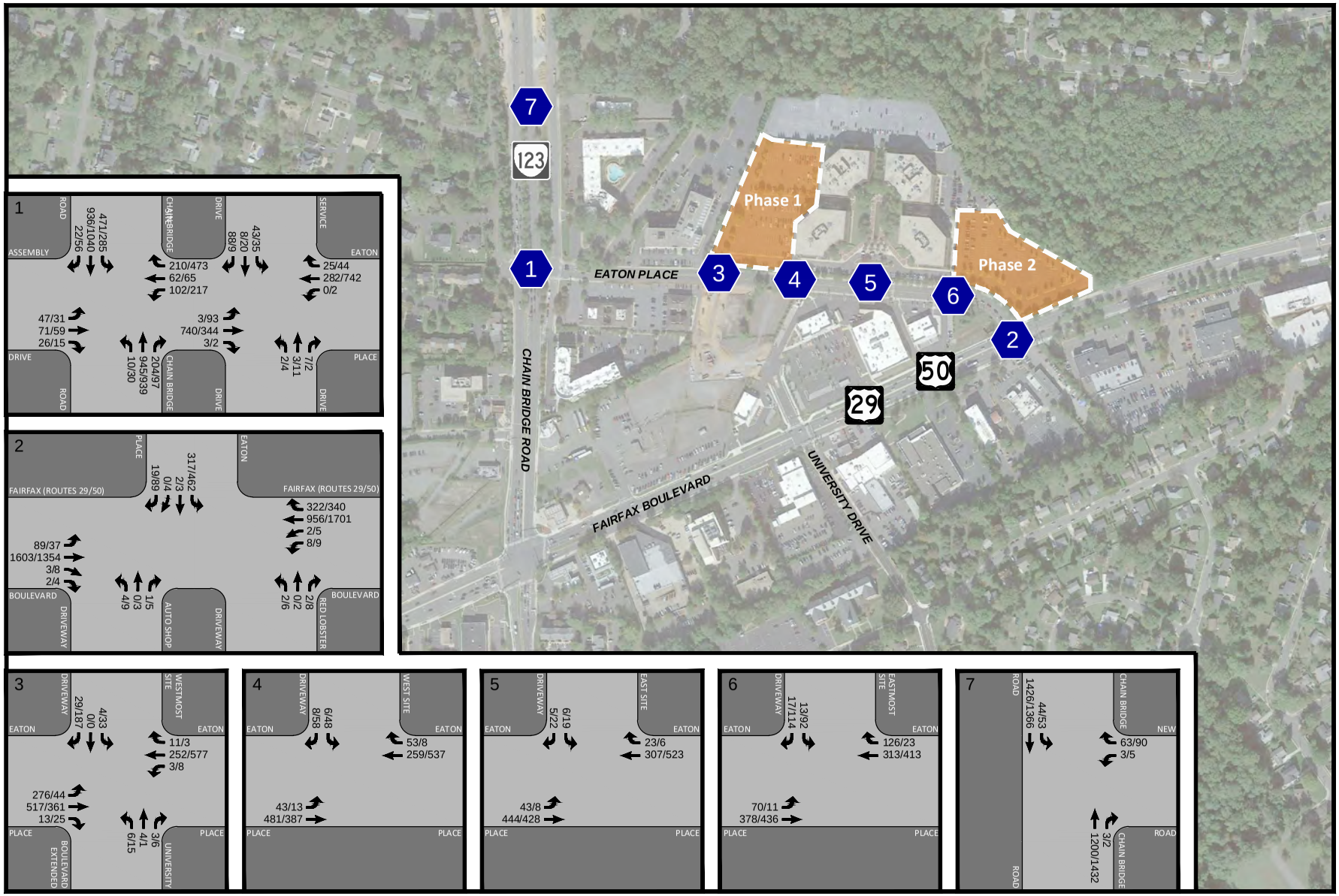

Figure 5-3
2026 Background Future Traffic Forecasts

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

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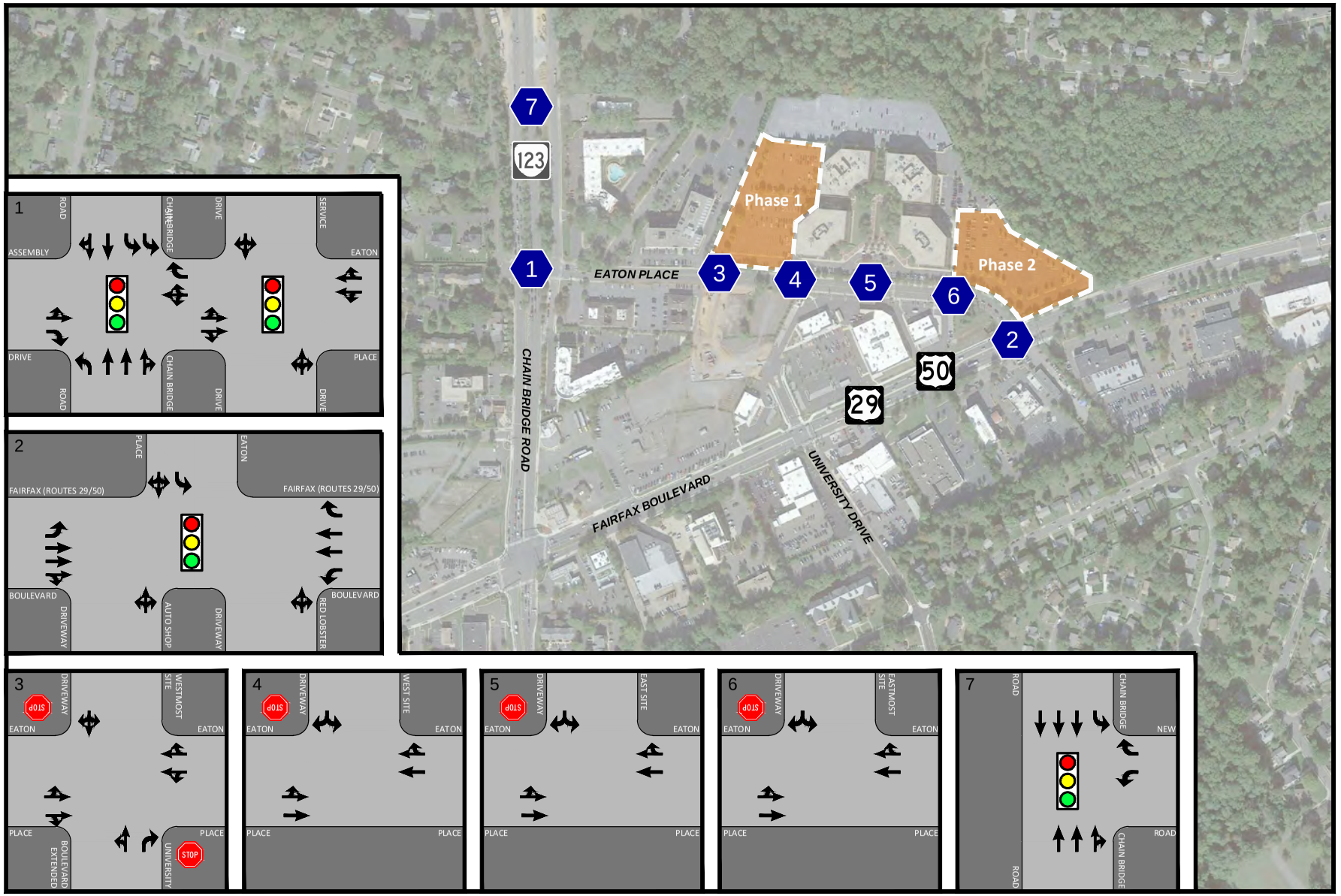

Figure 5-4
2026 Background Future Lane Use and Traffic Control

Represents One Travel Lane
Signalized Intersection
Stop Sign

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 6
SITE ANALYSIS

Overview

The number of new vehicle trips anticipated to be generated by the proposed development plan were forecasted and assigned to the surrounding roadway network. The generation, distribution, and assignment of site trips were based on the proposed development plan and existing site entrances in relation to the surrounding roadway network.

Proposed Site Access

The site plan provided on Figure 1-2 shows that access to the site would continue to be provided via four (4) driveways along Eaton Place. The western driveways would serve the residential apartments and ground-floor retail while the eastern driveway would serve the townhouses. All of these driveways would continue to provide full-movement access.

Trip Generation

Overview. Trip generation estimates for the AM and PM peak hours, as well as the average daily traffic, were derived from the standard Institute of Transportation Engineers (ITE) trip generation rates, as published in the Trip Generation, 11th edition manual. The "Multifamily Residential – Mid-Rise" (221) land use code was used for the proposed apartment units while land use code 220 was used for the townhomes units. The "Retail Plaza" (land use code 822) was used for the commercial component.

The trip generation analysis for the proposed uses is presented in Table 6-1 and indicates that the site would generate 154 AM peak hour trips (39 in and 115 out), 168 PM peak hour trips (101 in and 67 out), and 1,847 daily (24-hour) trips when fully built and occupied in 2026.

It should be noted that no reduction in site generated trips due to transit mode split was taken in this analysis. However, it is anticipated that the project would take advantage of public transit opportunities available within the immediate proximity of the site.

Site Trip Distribution

As agreed upon in the scope with City staff, site trip distribution used in the analysis was based on existing travel patterns and engineering judgment. For purposes of this analysis, the following distribution was used in the forecasting of future site traffic:

To/From:	Residential/Commercial
North on Chain Bridge Road:	40 percent
East on Fairfax Boulevard:	30 percent
South on Chain Bridge Road:	10 percent
West on Fairfax Boulevard:	20 percent
TOTAL	**100 percent**

Site Trip Assignments

The vehicle trip distribution and assignments of the total vehicle trips generated upon the future buildout of the Willowwood Property development was based on the above distribution and are depicted on Figure 6-1.

Table 6-1
N9 Willowwood
Site Trip Generation Summary **(1)**

Land Use	Size	Units	ITE Code	Weekday AM Peak Hour In	Weekday AM Peak Hour Out	Weekday AM Peak Hour Total	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Weekday ADT
Proposed Uses										
Multifamily Residential (Mid-Rise)	**268**	**D.U.**	**221**	**24**	**82**	**106**	**64**	**41**	**105**	**1,232**
2-over-2 Townhomes	50	D.U.	220	9	29	38	26	16	42	396
Residential Subtotal	318	D.U.		33	111	144	90	57	147	1,628
Internal with Retail (5% AM, 10% PM, 15% Daily)				-	-	-	1	1	2	47
New Residential External Trips				***33***	***111***	***144***	***89***	***56***	***145***	***1,581***
Retail Plaza	**1,981**	**S.F.**	**822**	**6**	**4**	**10**	**13**	**12**	**25**	**313**
Internal with Residential (5% AM, 10% PM, 15% Daily)				-	-	-	1	1	2	47
New External Retail Trips				***6***	***4***	***10***	***12***	***11***	***23***	***266***
Total New Trips				**39**	**115**	**154**	**101**	**67**	**168**	**1,847**

Notes:
(1) Trip Generation based on ITE's Trip Generation, 11th Edition.

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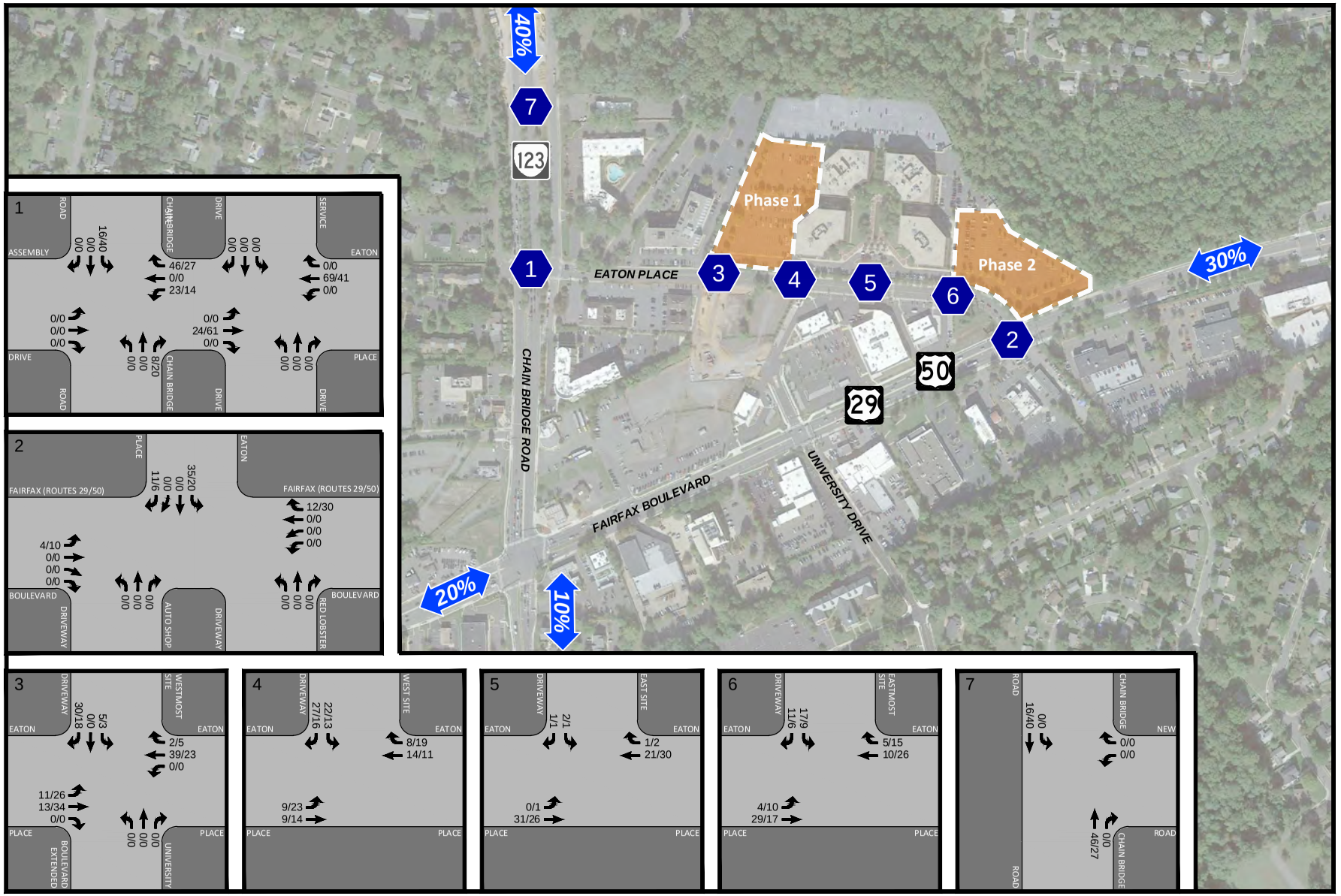

Figure 6-1
Site Trip Assignments

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 7
ANALYSIS OF FUTURE CONDITIONS WITH SITE DEVELOPMENT

Total Future Traffic Forecasts

Site trip assignments shown on Figure 6-1 were added to the background traffic forecasts to yield 2026 total future traffic forecasts, shown on Figure 7-1. Lane use and traffic control at each of the study intersections for 2026 total future conditions is shown on Figure 7-2.

Total Future Levels of Service with Proposed Development Plan

Future levels of service and queuing with the proposed development plan were determined at the study intersections based on the future traffic volumes and lane use and the 2000 HCM methodologies for signalized and unsignalized intersections calculated using the Synchro 11 traffic analysis software. The results of these analyses are provided in Appendix E and summarized in Tables 7-1 and 7-2.

Study intersections are anticipated to operate as follows:

1. The Chain Bridge Road (Route 123)/Eaton Place signalized intersection would continue to operate at level of service (LOS) "E" during the AM peak hour and LOS "D" during the PM peak hour with the installation of dual southbound left turn lanes. The adjacent service streets at Eaton Place would continue to operate at LOS "D" and LOS "F" during these periods.

2. The signalized Fairfax Boulevard (US Route 50)/Eaton Place intersection would operate at level of service (LOS) "C" during the AM peak hour and LOS "E" during the PM peak hour. The side-street approach of Eaton Place operates at LOS "F" during these periods.

3. All approaches at the unsignalized intersections serving the site on Eaton Place would continue to operate at acceptable levels of service (at LOS "C" or better) during both the AM and PM peak hours with the exception of the northbound approach of University Boulevard Extended that would operate at LOS "F" and "E" during the AM and PM peak hours, respectively. No additional roadway improvements are required at the site driveway intersections.

4. The planned signalized intersection to the north on Chain Bridge Road (Route 123) would continue to operate at overall level of service "B" or better. Consistent with background conditions, sidestreet and left-turning movements would experience higher delays to the corridor signal cycle lengths.

5. Queuing would be generally consistent with background conditions. At the site driveways, sidestreet queues would be four (4) vehicle lengths or less.

As shown in Table 7-1, levels of service under future site development conditions would remain generally consistent with future background conditions (i.e., without site development). The site-generated traffic would have a minor increase in delay at the key signalized intersections on Chain Bridge Road (Route 123) and Fairfax Boulevard (U.S. Route 29/50) of generally three (3) seconds during the AM peak hour and five (5) during the PM peak hour.

As previously noted, a "Road Diet" is recommended for Eaton Place to be modified from its existing four-lane undivided section to a three-lane road with a center left turn lane and bicycle lanes. The capacity results assuming this alternative geometry are shown in Table 7-1 and indicate that all approaches at the unsignalized intersections serving the site on Eaton Place would continue to operate at acceptable levels of service (at LOS "C" or better) during both the AM and PM peak hours with the exception of the northbound approach of University Boulevard Extended that would operate at LOS "F" and "E" during the AM and PM peak hours, respectively. Thus, this context-sensitive design would serve all modes and provide a left turn lane to improve and promote safe operations while maintaining adequate vehicular operations along Eaton Place.

Transportation Demand Management

The Applicant proposes to implement a number of Transportation Demand Management (TDM) measures that will inform residents of transit options and provide amenities such as bicycle racks to allow residents to make trips to local uses without using a vehicle.

Typical elements of a Transportation Demand Management program may include:

A. Designate a Transportation Management Coordinator (TMC) for the property. The TMC would implement the TDM program. The position may be part of other duties assigned to the individual. Duties of the Transportation Management Coordinator would include the following:

   1. Assist residents in making effective and efficient commuting choices.
   2. Disseminate bus, ridesharing, bicycle route maps, trail maps, and other relevant transit options to new residents.
   3. Solicit support from the Metropolitan Washington Council of Governments (MWCOG) Commuter Connections program, the Washington Metropolitan Area Transit Authority (WMATA), OmniRide, and others.
   4. Provide on-site assistance to residents in forming and maintaining carpools.
   5. Disseminate park-and-ride lot information to prospective carpoolers.
   6. Register carpool participants, transit users, bicyclists, and walkers in the Guaranteed Ride Home (GRH) program.
   7. Encourage residents to ride bikes.

8. Market and promote the TDM Program among residents through printed materials and web sites (if available).

B. Commuter Center

1. Designate a centralized space on-site (within one or more buildings) as a Commuter Center where TMC functions would take place.
2. Install display racks and/or an electronic display that would provide information on the various aspects of the TDM Program.
3. Sell transit fare media, such as OmniRide bus passes, SmarTrip cards, Metro fare cards, and Metrobus passes.
4. Allow residents to purchase transit fare media.
5. Install bike storage for residents.

C. Incentives to use transit or alternatives to automobiles, including:

1. Provide information on OmniRide, Metrorail, Metrobus, Trail Access, and other public transportation facilities, services, routes, schedules, and fares.
2. Disseminate information to transit users regarding free guaranteed rides home in cases of emergency.
3. Provide convenient, comfortable, and attractive pedestrian connections on and off-site.

D. Carpool programs, including:

1. Provide personalized assistance and ride-matching services among residents through the Commuter Center and TMC.
2. Provide ride-matching assistance and services among the site's residents and other area residents and employees through the Commuter Connections program of MWCOG.
3. Disseminate information to carpoolers regarding free guaranteed rides home in cases of emergency.

E. Parking management, including:

1. Provide secure bicycle parking for residents and employees.

F. Pedestrian and Bicycle Programming and Support, including:

1. Provide bicycle storage. Note that storage for 38 bicycles will be provided in the bike storage room within the central building.
2. Provide pedestrian connections to adjacent properties where available.

G. Revisions to the TMP

1. Design the TMP to be flexible and responsive to future evaluations in prescribing the TDM strategies. The phasing of development and transportation infrastructure in the region requires that the TMP has flexibility to respond to the various challenges posed by changes in transit system capacity, transit fares, construction staging and traffic, fuel prices, regional transportation policies and projects, changes in travel behavior, telework and flexible work hours, and changes in surrounding developments.

Table 7-1
N29 Willowwood
Total Future Intersection Levels of Service Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	2022 Baseline AM	2022 Baseline PM	2026 Background Future AM	2026 Background Future PM	2026 Total Future AM	2026 Total Future PM
(1) **Chain Bridge Road (Route 123)**/ Eaton Place/	Signal	EBLTR	F (83.9)	F (144.7)	F (83.9)	F (126.0)	F (83.9)	F (122.6)
		WBLT	A (5.2)	A (6.0)	A (3.0)	A (6.1)	A (2.5)	A (7.5)
		WBR	A (0.7)	C (20.2)	A (0.7)	C (30.4)	A (1.7)	C (31.5)
		NBL	F (95.0)	F (104.7)	F (92.7)	F (104.7)	F (92.7)	F (104.7)
		NBTR	F (87.2)	E (57.6)	F (101.8)	E (56.7)	F (104.2)	E (59.9)
		SBL	F (290.5)	F (89.4)	F (241.4)	F (91.8)	F (261.1)	F (133.7)
		SBTR	D (41.7)	D (42.2)	D (51.2)	D (41.2)	D (51.2)	D (41.7)
		Overall	**F (95.3)**	**D (47.7)**	**F (94.5)**	**D (48.3)**	**F (97.1)**	**D (53.8)**
With Proposed Changes to Southbound Approach **(2 Left Lanes and 2 Thru Lanes)**		EBLTR	-	-	F (83.9)	F (126.0)	F (83.8)	F (122.6)
		WBLT	-	-	A (3.0)	A (6.1)	A (2.5)	A (7.5)
		WBR	-	-	A (0.7)	C (30.4)	A (1.6)	C (31.5)
		NBL	-	-	F (92.7)	F (104.7)	F (92.7)	F (104.7)
		NBTR	-	-	F (94.5)	D (54.9)	F (99.5)	E (57.5)
		SBL	-	-	E (79.6)	F (102.4)	F (80.5)	F (104.9)
		SBTR	-	-	E (60.0)	D (48.5)	E (60.0)	D (49.6)
		Overall	**-**	**-**	**E (69.9)**	**D (51.1)**	**E (70.6)**	**D (52.9)**
Route 123 Service Drive/ Eaton Place/	Signal	EBLTR	A (3.4)	A (3.7)	A (3.8)	A (3.4)	A (3.9)	A (3.2)
		WBLTR	F (80.8)	F (235.4)	F (83.0)	F (244.2)	F (82.9)	F (272.2)
		NBLTR	F (90.0)	F (105.0)	F (90.0)	F (105.2)	F (90.0)	F (105.1)
		SBLTR	F (191.8)	F (332.7)	F (96.6)	F (125.0)	F (123.8)	F (126.9)
		Overall	**D (51.8)**	**F (166.3)**	**D (35.5)**	**F (155.8)**	**D (40.4)**	**F (168.3)**
(2) Fairfax Boulevard (U.S. Route 29/50)/ **Eaton Place/Private Driveways**	Signal	EBL	B (14.5)	C (31.0)	B (15.5)	D (38.7)	B (17.2)	D (40.1)
		EBTR	C (20.6)	C (20.9)	C (21.7)	C (21.5)	C (23.5)	C (21.4)
		WBL	B (16.1)	B (15.1)	B (17.2)	B (15.5)	B (18.8)	B (15.9)
		WBT	C (23.2)	C (33.5)	C (24.5)	D (37.0)	C (26.8)	D (38.0)
		WBR	B (19.8)	C (20.2)	C (20.7)	C (20.5)	C (22.7)	C (21.9)
		NBLTR	F (93.6)	F (106.7)	F (93.6)	F (106.7)	F (93.6)	F (106.7)
		NELTR	F (95.1)	F (107.3)	F (95.1)	F (107.3)	F (95.1)	F (107.3)
		SBL	F (108.8)	F (220.3)	F (107.2)	F (227.4)	F (103.8)	F (252.0)
		SBLTR	F (107.9)	F (213.0)	F (106.1)	F (218.5)	F (104.0)	F (245.2)
		Overall	**C (30.3)**	**D (54.9)**	**C (31.0)**	**E (56.5)**	**C (33.5)**	**E (61.8)**
(3) Eaton Place/ **Westmost Driveway/ University Drive Extended**	Stop Sign	EBLT	A [6.0]	A [2.2]	A [6.0]	A [2.2]	A [6.3]	A [3.2]
		WBLT	A [0.2]	A [0.3]	A [0.2]	A [0.3]	A [0.2]	A [0.3]
		NBLT	E [47.1]	E [35.4]	E [49.0]	E [36.5]	F [61.9]	E [48.6]
		NBR	A [8.9]	A [8.9]	A [8.9]	A [9.0]	A [8.9]	A [8.9]
		SBLTR	B [12.5]	C [18.1]	B [12.7]	C [18.5]	C [15.4]	C [22.3]
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	A [9.2]	A [9.3]
		WBL	-	-	-	-	A [9.0]	A [8.4]
		NBLT	-	-	-	-	E [39.3]	F [58.6]
		NBR	-	-	-	-	B [12.3]	B [10.9]
		SBLTR	-	-	-	-	C [16.5]	D [26.8]
(4) Eaton Place/ **West Driveway**	Stop Sign	EBLT	A [2.1]	A [0.9]	A [2.0]	A [0.9]	A [2.4]	A [2.3]
		SBLR	B [11.6]	C [16.3]	B [11.5]	C [16.4]	B [12.7]	C [19.6]
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	A [8.3]	A [9.0]
		SBLR	-	-	-	-	B [12.9]	C [16.9]
(5) Eaton Place/ **Middle Driveway**	Stop Sign	EBLT	A [2.2]	A [0.6]	A [2.2]	A [0.6]	A [2.1]	A [0.6]
		SBLR	B [12.9]	B [14.3]	B [13.0]	B [14.5]	B [13.7]	C [15.3]
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	A [8.3]	A [8.8]
		SBLR	-	-	-	-	B [12.4]	B [13.9]
(6) Eaton Place/ **East Driveway**	Stop Sign	EBLT	A [3.6]	A [0.7]	A [3.6]	A [0.7]	A [3.6]	A [1.2]
		SBLR	B [13.8]	C [18.0]	B [14.0]	C [18.4]	C [16.4]	C [22.2]
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	A [8.8]	A [8.6]
		SBLR	-	-	-	-	B [13.6]	C [18.5]
(7) **Chain Bridge Road (Route 123)**/ New Road	Signal	WBL	-	-	F (84.4)	F (99.5)	F (84.4)	F (99.5)
		WBR	-	-	F (84.5)	F (99.6)	F (84.5)	F (99.6)
		NBTR	-	-	C (30.2)	A (3.2)	C (30.2)	A (3.2)
		SBL	-	-	F (96.8)	F (109.1)	F (96.8)	F (109.1)
		SBT	-	-	A (3.0)	A (2.7)	A (3.0)	A (2.7)
		Overall	**-**	**-**	**B (18.5)**	**A (7.7)**	**B (18.5)**	**A (7.7)**

Notes:
(1) Analysis performed using Synchro software, version 110
(2) Values in parentheses, ( ), represent signalized delay in seconds
(3) Values in brackets, [ ], represent unsignalized delay in seconds
(4) * - Delay exceeds 999 seconds
(5) Roadway names in bold are considered north/south for purposes of this analysis.

Table 7-2
N29 Willowwood
Total Future Intersection Queuing Summary (1) (2) (3) (4) (5)

Intersection	Intersection Control	Lane Group	Available Storage (ft)	2022 Baseline AM 50th %	2022 Baseline AM 95th %	2022 Baseline PM 50th %	2022 Baseline PM 95th %	2026 Background Future AM 50th %	2026 Background Future AM 95th %	2026 Background Future PM 50th %	2026 Background Future PM 95th %	2026 Total Future AM 50th %	2026 Total Future AM 95th %	2026 Total Future PM 50th %	2026 Total Future PM 95th %
(1) **Chain Bridge Road (Route 123)**/	Signal	EBLTR	-	180	269	156	#288	180	269	156	#288	180	269	156	#288
Eaton Place/		WBLT	-	17	m28	90	m2	7	m12	104	m0	5	m10	137	m0
		WBR	-	1	m0	93	m0	0	m0	93	m0	0	m10	126	m0
		NBL	190	9	28	37	77	14	39	44	87	14	39	44	87
		NBTR	-	520	#610	429	479	~587	#684	471	522	~596	#693	497	548
		SBL	400	~875	#1123	338	#570	~774	#1020	326	#520	~817	#1065	~425	#640
		SBTR	800	298	390	391	446	361	465	368	397	361	465	377	405
With Proposed Changes to Southbound Approach		EBLTR	-	-	-	-	-	180	269	156	#288	180	269	156	#288
(2 Left Lanes and 2 Thru Lanes)		WBLT	-	-	-	-	-	7	m12	104	m0	5	m10	137	m0
		WBR	-	-	-	-	-	0	m0	93	m0	0	m10	126	m0
		NBL	190	-	-	-	-	14	39	44	87	14	39	44	87
		NBTR	-	-	-	-	-	~587	#684	461	522	~596	#693	497	548
		SBL	400	-	-	-	-	312	384	224	287	324	397	260	328
		SBTR	800	-	-	-	-	583	764	720	570	583	763	746	583
Route 123 Service Drive/	Signal	EBLTR	-	30	m31	23	m24	36	m31	21	22	37	m31	23	27
Eaton Place/		WBLTR	-	190	265	~868	#950	197	274	~891	#970	245	332	~962	#1037
		NBLTR	-	6	32	26	61	6	32	26	61	6	32	26	61
		SBLTR	-	~278	#486	~308	#474	155	#331	101	#173	159	#331	#173	#173
(2) Fairfax Boulevard (U.S. Route 29/50)/	Signal	EBL	260	27	85	19	39	28	88	19	42	32	94	25	63
Eaton Place/Private Driveways		EBTR	-	256	635	395	465	278	689	437	512	305	713	427	501
		WBL	140	3	16	7	19	3	16	7	19	3	17	7	19
		WBT	-	295	593	1021	1226	316	641	1174	1408	342	666	1143	1394
		WBR	-	64	201	145	241	70	216	158	257	80	235	176	287
		NBLTR	-	5	18	26	59	5	18	26	59	5	18	26	59
		SBL	-	242	m303	~561	m#768	244	m314	~581	#814	270	m357	~624	#864
		SBLTR	-	236	m292	~526	m#732	238	m308	~544	#774	268	m357	~592	#822
		NEBLTR	-	7	26	26	59	7	26	26	59	7	26	26	59
(3) Eaton Place/	Stop Sign	EBLT	-	-	26	-	4	-	26	-	4	-	29	-	7
Westmost Driveway		WBLT	-	-	0	-	1	-	0	-	1	-	0	-	1
		NBLT	-	-	9	-	10	-	10	-	11	-	12	-	15
		NBR	-	-	0	-	1	-	0	-	1	-	0	-	1
		SBLTR	-	-	6	-	63	-	6	-	65	-	17	-	87
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	-	-	-	-	-	-	29	-	7
		WBL	-	-	-	-	-	-	-	-	-	-	0	-	1
		NBLT	-	-	-	-	-	-	-	-	-	-	8	-	18
		NBR	-	-	-	-	-	-	-	-	-	-	0	-	1
		SBLTR	-	-	-	-	-	-	-	-	-	-	19	-	105
(4) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1	-	3	-	1	-	4	-	3
West Driveway		SBLR	-	-	2	-	27	-	2	-	27	-	12	-	43
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	-	-	-	-	-		4		3
		SBLR	-	-	-	-	-	-	-	-	-		12		36
(5) Eaton Place/	Stop Sign	EBLT	-	-	3	-	1	-	3	-	1	-	4	-	1
Middle Driveway		SBLR	-	-	2	-	9	-	2	-	9	-	3	-	10
3-Lane Cross-Section	Stop Sign	EBL	-	-	-	-	-	-	-	-	-	-	4	-	1
		SBLR	-	-	-	-	-	-	-	-	-	-	2	-	9
(6) Eaton Place/	Stop Sign	EBLT		-	6	-	1	-	6	-	1	-	7	-	2
East Driveway		SBLR		-	6	-	59	-	6	-	60	-	16	-	80
3-Lane Cross-Section	Stop Sign	EBL		-	-	-	-	-	-	-	-	-	7	-	2
		SBLR		-	-	-	-	-	-	-	-	-	12	-	65
(7) **Chain Bridge Road (Route 123)**/	Signal	WBL	-	-	-	-	-	4	15	7	24	4	15	7	24
New Road		WBR	-	-	-	-	-	0	52	0	67	0	52	0	67
		NBTR	-	-	-	-	-	559	m568	10	546	581	m592	12	564
		SBL	200	-	-	-	-	59	109	84	142	59	109	84	142
		SBT		-	-	-	-	96	230	90	231	98	233	98	230

Notes:
(1) Analysis performed using Synchro software, version 11
(2) "~" - 50th percentile volume exceeds capacity, queue may be longer.
(3) "#" - 95th percentile volume exceeds capacity, queue may be longer.
(4) "m" - Volume for 95th percentile queue is metered by upstream signal.
(5) Roadway names in bold are considered north/south for purposes of this analysis.

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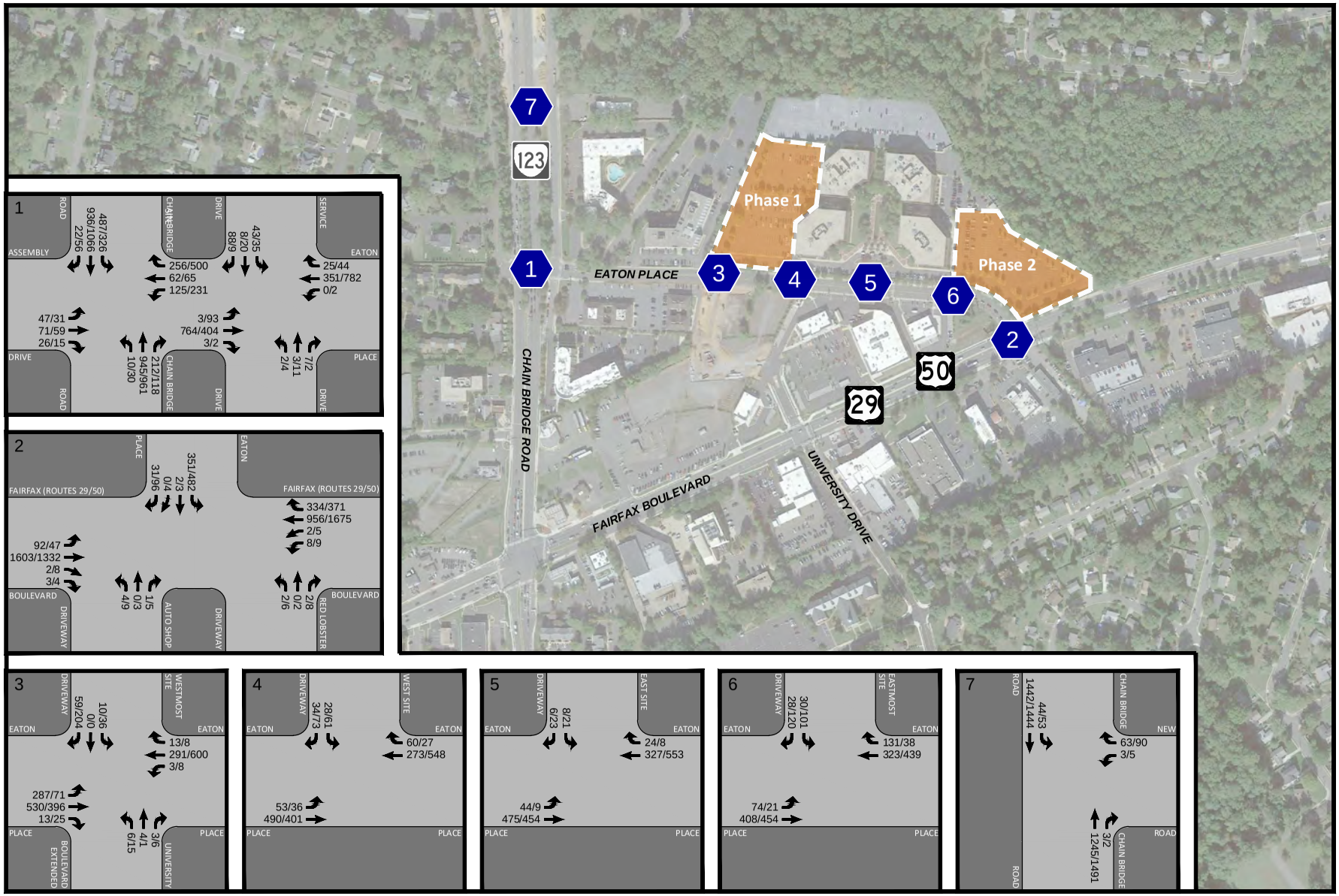

Figure 7-1
2026 Total Future Traffic Forecasts

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

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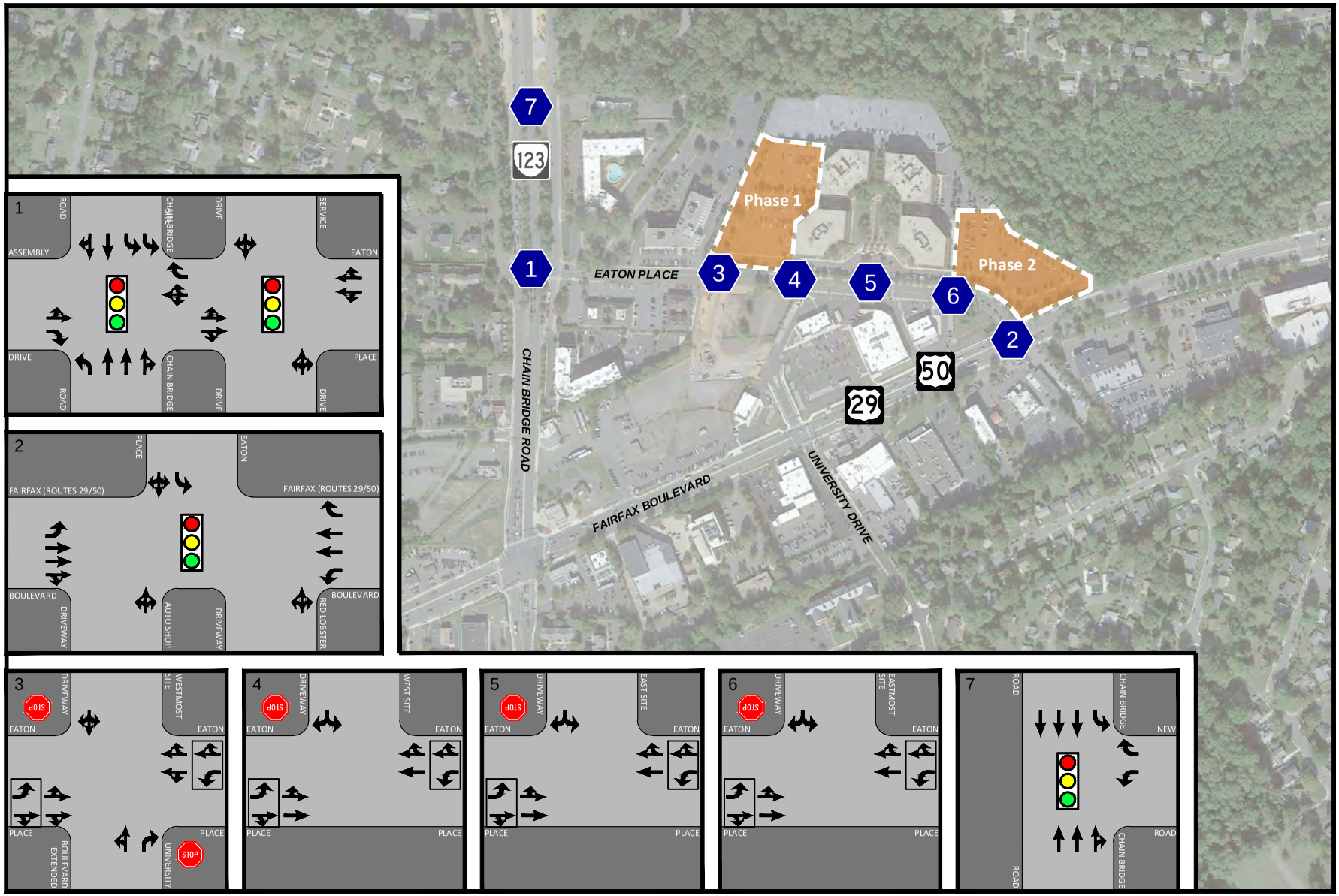

Figure 7-2
2026 Total Future Lane Use and Traffic Control

Represents One Travel Lane
Signalized Intersection
Stop Sign

NORTH

N29 Willowwood
City of Fairfax, Virginia

SECTION 8
CONCLUSIONS

The following summarizes the conclusions of this traffic impact study:

1. The Chain Bridge Road (Route 123)/Eaton Place signalized intersection currently operates beyond capacity (LOS "F") during the AM peak hour while the adjacent service streets at Eaton Place operate beyond capacity (LOS "F") during the PM peak hour. Other signalized intersections operate at overall acceptable levels of service (LOS "D" or better) with some lane groups operating beyond capacity.

2. The Breezeway Property, Northfax West Development, and Paul VI Redevelopment approved pipeline developments are anticipated to generate 307 AM commuter peak hour trips and 617 PM commuter peak hour trips at full buildout.

3. Under future 2026 traffic conditions, minimal increases in delay at the study intersections are expected due to the trips generated by approved pipeline developments in the vicinity of the site and overall levels of service would remain generally consistent with existing conditions.

4. The Applicant proposes to develop portions of the existing surface parking areas serving the existing office uses with 268 multifamily apartments with 1,981 S.F. of ground-floor retail and 50 residential townhouse units. Structured parking garages will be constructed to serve the existing and proposed uses. Vehicular access would be provided via the existing four (4) site driveways on Eaton Place.

5. The project is estimated to generate 154 AM peak commuter hour trips and 168 PM peak commuter hour trips upon buildout. It is expected to generate 1,847 average daily (24-hour) vehicle trips.

6. Under future 2026 traffic conditions, with the development of the subject site, intersection levels of service would remain generally consistent with existing and background conditions. The analyses show that the Chain Bridge Road (Route 123)/Eaton Place/Service Drive signalized intersections would operate near or beyond capacity during the commuter peak periods.

7. All unsignalized intersection and access drive approaches serving Willowwood Plaza will operate at LOS "C" or better during each of the studied peak periods with the exception of the northbound approach of University Boulevard Extended. No additional roadway improvements are required at the site driveways under future conditions.

8. An alternative design for Eaton Place that would provide a three-lane road with a center left turn lane and bicycle lanes could be implemented while maintaining adequate vehicular operations along Eaton Place. This context-sensitive design would serve all modes and provide a left turn lane to improve and promote safe operations.

APPENDIX A

City of Fairfax Scoping Agreement

SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

N29 WILLOWWOOD
CITY OF FAIRFAX, VIRGINIA
November 14, 2022

Contact Information			
Consultant Name: Tele: E-mail:	John F. Cavan, P.E., PTOE, - Wells + Associates, Inc. 703.676.3611 jfcavan@wellsandassociates.com		
Developer/Owner Name: Tele: E-mail:	Chris Love - Capital City Real Estate 202.255.9289 chris@capcityre.com		
Project Information			
Project Name:	N29 Apartments (Phase I) / N29 Residences (Phase II)	Locality/County:	City of Fairfax
Project Location: (Attach regional and site specific location map)	The site is located on the north side of Eaton Place between Chain Bridge Road (Route 123) and Fairfax Boulevard (US Route 50) and is currently occupied by office uses. See Figure 1 for the site location.		
Submission Type	Comp Plan ☐	Rezoning ☒	Site Plan ☐ / Subd Plat ☐
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	The Applicant is proposing to construct residential uses on the southwest and southeast portions of the site. Specifically, Phase 1 would consist of 282 multifamily units on the southwest of the site while Phase 2 would consist of 64 two-over-two townhomes. In addition, there will be approximately 2,000 SF of retail uses in Phase 1. Both phases are anticipated to be completed within one year of each other and only one buildout condition will be analyzed. The existing office uses would remain, and a portion of the parking would be shared between the residential and office uses. The Site Layout is provided as Figure 2.		
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential ☐	Commercial ☐	Mixed Use ☒ / Other ☐
(See Table 1)	**Existing Uses(s)** Number of Units: ITE LU Code(s): **Proposed Uses(s)** Number of Multi-Family Units: 282 DU ITE LU Code(s): 221 Number of 2-over-2 Condo Units: 64 DU		**Other Use(s)** Retail 2,000 SF ITE LU Code(s): 822 Independent Variable(s): _____ _____ _____

	ITE LU Code(s): 220			
Total Peak Hour Trip Projection:	Less than 100 ☐	100 – 499 ☒	500 – 999 ☐	1,000 or more ☐

Traffic Impact Analysis Assumptions

Study Period	Existing Year: 2022	Build-out Year: 2026	Design Year: n/a
Study Area Boundaries	North: Eaton Place	South: Fairfax Boulevard (US Route 50)	
	East: Eaton Place	West: Chain Bridge Road (Route 123)	
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	Pipeline Developments: Paul VI Redevelopment Breezeway Property Northfax West Development		
Consistency With Comprehensive Plan (Land use, transportation plan)	The City's 2035 Comprehensive Plan identifies the site as part of the Northfax Activity Center. The Small Area Plan recommends a mix of office, retail, and multifamily residential uses on the site.		
Available Traffic Data (Historical, forecasts)	VDOT historical traffic count data indicates: 2020 VDOT Average Annual Daily Traffic (AADT): US Route 29/50: 27,000; Route 123: 31,000 2019 VDOT Average Annual Daily Traffic (AADT): US Route 29/50: 37,000; Route 123: 39,000 2018 VDOT Average Annual Daily Traffic (AADT): US Route 29/50: 37,000; Route 123: 38,000 2017 VDOT Average Annual Daily Traffic (AADT): US Route 29/50: 37,000; Route 123: 39,000 2016 VDOT Average Annual Daily Traffic (AADT): US Route 29/50: 40,000; Route 123: 38,000		
Trip Distribution (See Figure 1)	From the East (US Route 29/50): 30%	From the North (Route 123): 40%	
	From the West (US Route 29/50): 20%	From the South (Route 123/University): 10%	
Annual Vehicle Trip Growth Rate:	0.5% or per VDOT AADT counts	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT
		Peak Hour of the Generator	N/A
Study Intersections and/or Road Segments	1. Chain Bridge Road (Route 123)/Eaton Place/Service Roads	2. Fairfax Boulevard (Route 29/50)/Eaton Place	

(See Figure 1)	3-6. Eaton Place/Site Driveways	7. Chain Bridge Road (Route 123)/Future North Connector
Trip Adjustment Factors	Internal allowance: ☒ Yes ☐ No Reduction: 5 to 15% trips	Pass-by allowance: ☐ Yes ☒ No Reduction: n/a % trips
Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☐ aaSIDRA ☐ CORSIM ☐ Other Synchro Version 10	
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	1. Chain Bridge Road (Route 123)/Eaton Place/Service Roads 2. Fairfax Boulevard (Route 29/50)/Eaton Place 3. Chain Bridge Road (Route 123)/Future North Connector	
Improvement(s) Assumed or to be Considered	Potential modification to Eaton Place from a four-lane undivided road to a three (3) lane roadway with a center left turn lane and bicycle lanes	
Background Traffic Studies Considered	Paul VI Redevelopment TIA Breezeway Property TIA Northfax West TIA	
Plan Submission	☐ Master Development Plan (MDP) ☒ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☐ Other Plan type (Final Site, Subd. Plan)	
Additional Issues to be Addressed	☒ Queuing analysis ☐ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☒ Bike/Ped Accommodations ☐ Intersection(s) ☒ TDM Measures ☐ Other	

NOTES on ASSUMPTIONS:

1. Synchro 10 will be used to conduct capacity analysis with peak hour factors measured in the field for existing conditions (0.85<PHF). Under background and total future conditions, a minimum PHF of 0.92 will be used for all movements.
2. Existing Synchro (signal timing) files to be provided by the city. Files submitted with the TIA will be saved to version 10.

SCOPE OF WORK MEETING

ADDITIONS TO THE REQUIRED ELEMENTS, CHANGES TO THE METHODOLOGY OR STANDARD ASSUMPTIONS, AND SIGNATURE PAGE

Any additions to the Required Elements or changes to the Methodology or Standard Assumptions due to special circumstances that are approved by the City of Fairfax:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

AGREED: John Cavan _____ DATE: 11/14/2022

Consultant

PRINT NAME: John F. Cavan, P.E., PTOE

Consultant

SIGNED: _____ DATE: _____

PRINT NAME: _____

Attachments:

Figure 1 – Site Location, Study Intersections, and Directional Distributions

Figure 2 – Site Layout

Table 1 – Trip Generation

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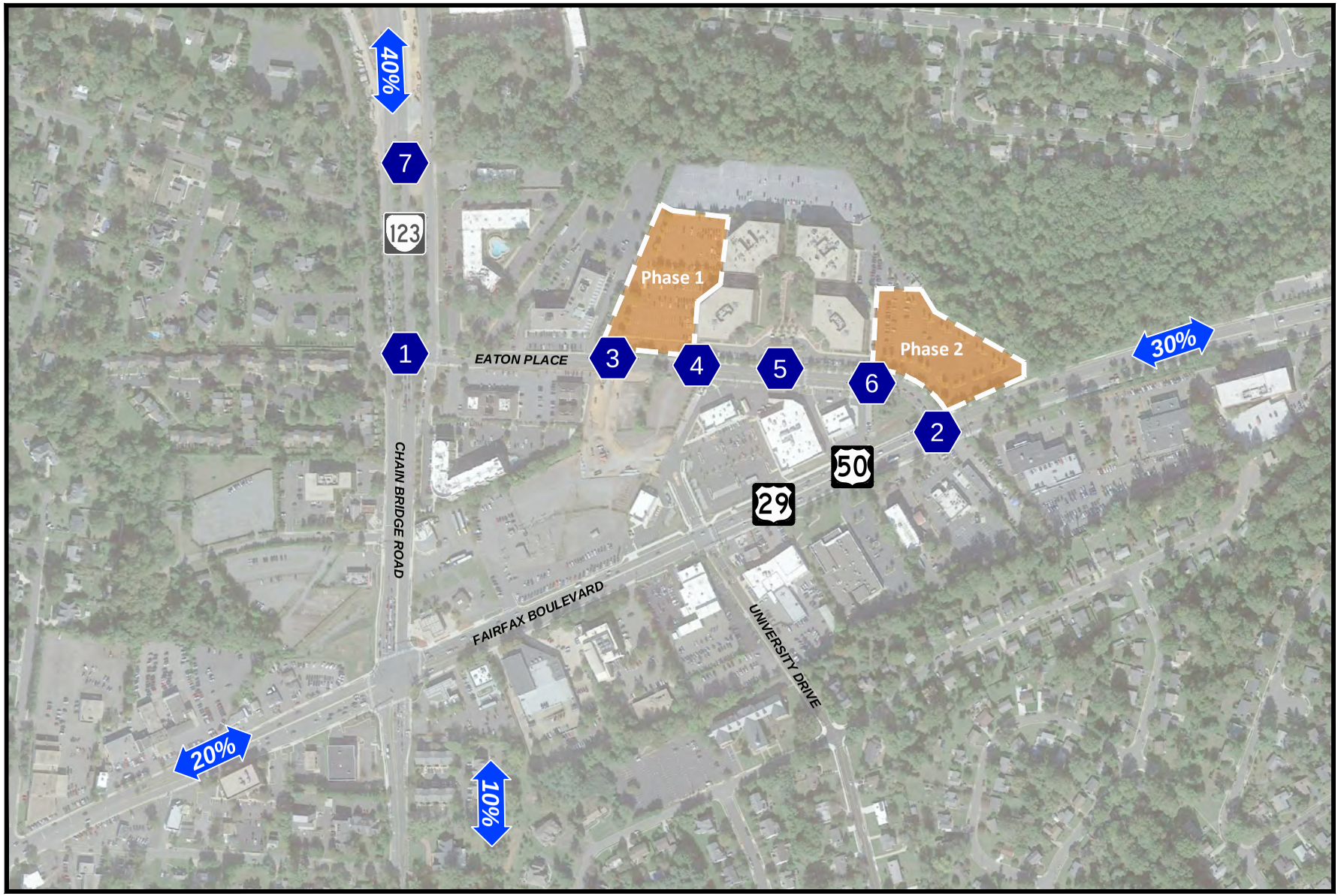

Figure 1
Site Location, Study Intersections, and Trip Distributions

NORTH

Willowwood Plaza
City of Fairfax, Virginia

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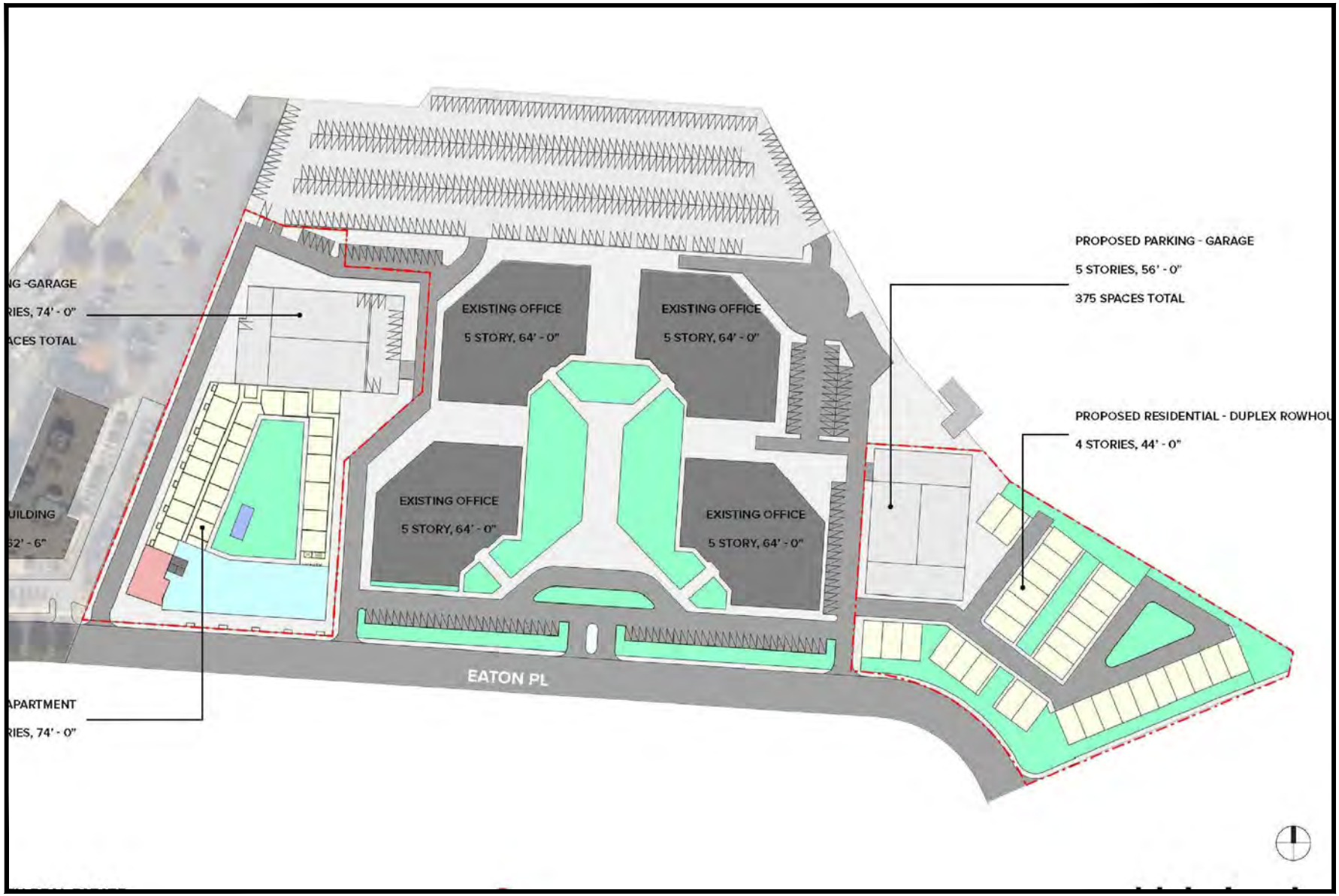


PLAN PROVIDED BY: HICKOK COLE

Figure 2
Proposed Development Plan

NORTH

Willowwood Plaza
City of Fairfax, Virginia

Table 1
Willowwood Plaza
Site Trip Generation Summary **(1)**

Land Use	Size	Units	ITE Code	Weekday AM Peak Hour In	Weekday AM Peak Hour Out	Weekday AM Peak Hour Total	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Weekday ADT
Proposed Uses										
Multifamily Residential (Mid-Rise)	**282**	**D.U.**	**221**	**26**	**86**	**112**	**67**	**43**	**110**	**1,299**
2-over-2 Townhomes	64	D.U.	220	10	33	43	30	18	48	486
Residential Subtotal	346	D.U.		36	119	155	97	61	158	1,785
Internal with Retail (5% AM, 10% PM, 15% Daily)				-	-	-	1	1	2	47
New Residential External Trips				***36***	***119***	***155***	***96***	***60***	***156***	***1,738***
Retail Plaza	**2,000**	**S.F.**	**822**	**6**	**4**	**10**	**13**	**12**	**25**	**314**
Internal with Residential (5% AM, 10% PM, 15% Daily)				-	-	-	1	1	2	47
New External Retail Trips				***6***	***4***	***10***	***12***	***11***	***23***	***267***
Total New Trips				**42**	**123**	**165**	**108**	**71**	**179**	**2,005**

Notes:
(1) Trip Generation based on ITE's Trip Generation, 11th Edition.

APPENDIX B

Existing Traffic Count Data

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Chain Bridge Rd. & Eaton Pl.
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Ramiz,Majda & Di
INPUTED BY: agan

SOUTHBOUND ROAD: Chain Bridge Road - 123
NORTHBOUND ROAD: Chain Bridge Road - 123
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time	Southbound Chain Bridge Road - 123						Westbound Eaton Place						Northbound Chain Bridge Road - 123						Eastbound Eaton Place						North & South	East & West	Total
Period	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	1	40	24	0	65		15	3	9	0	27		2	79	1	0	82		0	0	6	0	6		147	33	180
6:15 AM - 6:30 AM	0	56	24	0	80		27	2	6	0	35		6	87	0	1	94		0	3	3	0	6		174	41	215
6:30 AM - 6:45 AM	2	75	37	1	115		39	4	11	0	54		4	129	3	2	138		4	3	6	0	13		253	67	320
6:45 AM - 7:00 AM	4	75	48	1	128		44	3	20	0	67		12	133	3	1	149		1	8	8	0	17		277	84	361
7:00 AM - 7:15 AM	5	85	50	1	141		36	5	13	0	54		7	157	4	0	168		4	5	11	0	20		309	74	383
7:15 AM - 7:30 AM	5	100	49	0	154		50	9	15	0	74		8	182	3	2	195		7	13	10	0	30		349	104	453
7:30 AM - 7:45 AM	6	124	68	0	198		64	5	16	0	85		9	200	0	1	210		3	22	14	0	39		408	124	532
7:45 AM - 8:00 AM	7	206	86	1	300		50	12	18	0	80		10	193	2	2	207		11	23	9	0	43		507	123	630
8:00 AM - 8:15 AM	2	190	99	0	291		63	11	16	0	90		12	225	1	1	239		5	16	14	0	35		530	125	655
8:15 AM - 8:30 AM	5	207	64	0	276		59	28	18	0	105		18	190	3	4	215		3	15	15	0	33		491	138	629
8:30 AM - 8:45 AM	8	185	71	0	264		58	8	21	0	87		10	161	1	4	176		7	12	9	0	28		440	115	555
8:45 AM - 9:00 AM	4	236	75	0	315		33	5	20	0	58		11	169	4	2	186		11	12	7	0	30		501	88	589
4:00 PM - 4:15 PM	5	232	107	0	344		84	18	19	0	121		17	141	4	4	166		3	8	10	0	21		510	142	652
4:15 PM - 4:30 PM	2	209	88	0	299		93	11	25	0	129		16	132	9	2	159		2	14	4	0	20		458	149	607
4:30 PM - 4:45 PM	14	191	80	0	285		79	12	22	0	113		16	164	8	3	191		6	9	4	0	19		476	132	608
4:45 PM - 5:00 PM	9	217	79	2	307		101	13	32	0	146		14	177	6	4	201		5	20	8	0	33		508	179	687
5:00 PM - 5:15 PM	15	219	69	3	306		104	11	24	0	139		10	196	3	5	214		3	16	6	0	25		520	164	684
5:15 PM - 5:30 PM	13	214	75	1	303		100	21	16	0	137		22	212	9	5	248		4	15	9	0	28		551	165	716
5:30 PM - 5:45 PM	19	193	74	0	286		104	20	17	0	141		18	181	7	1	207		3	8	8	0	19		493	160	653
5:45 PM - 6:00 PM	11	207	69	1	288		78	13	19	0	110		19	187	6	5	217		5	3	6	0	14		505	124	629
6:00 PM - 6:15 PM	10	184	51	0	245		83	20	23	0	126		16	164	7	3	190		4	12	9	0	25		435	151	586
6:15 PM - 6:30 PM	15	171	49	0	235		81	12	24	0	117		18	159	4	4	185		2	14	6	0	22		420	139	559
6:30 PM - 6:45 PM	10	170	72	0	252		59	17	19	0	95		7	142	1	2	152		4	9	7	0	20		404	115	519
6:45 PM - 7:00 PM	14	175	66	2	257		45	12	13	0	70		17	146	2	3	168		5	6	7	0	18		425	88	513
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	186	3961	1574	13	5734		1549	275	436	0	2260		299	3906	91	61	4357		102	266	196	0	564		#####	2824	#####
One Hour Volumes																											
6:00 AM - 7:00 AM	7	246	133	2	388	0.76	125	12	46	0	183	0.68	24	428	7	4	463	0.78	5	14	23	0	42	0.62	851	225	1076
6:15 AM - 7:15 AM	11	291	159	3	464	0.82	146	14	50	0	210	0.78	29	506	10	4	549	0.82	9	19	28	0	56	0.7	1013	266	1279
6:30 AM - 7:30 AM	16	335	184	3	538	0.87	169	21	59	0	249	0.84	31	601	13	5	650	0.83	16	29	35	0	80	0.67	1188	329	1517
6:45 AM - 7:45 AM	20	384	215	2	621	0.78	194	22	64	0	280	0.82	36	672	10	4	722	0.86	15	48	43	0	106	0.68	1343	386	1729
7:00 AM - 8:00 AM	23	515	253	2	793	0.66	200	31	62	0	293	0.86	34	732	9	5	780	0.93	25	63	44	0	132	0.77	1573	425	1998
7:15 AM - 8:15 AM	20	620	302	1	943	0.79	227	37	65	0	329	0.91	39	800	6	6	851	0.89	26	74	47	0	147	0.85	1794	476	2270
7:30 AM - 8:30 AM	20	727	317	1	1065	0.89	236	56	68	0	360	0.86	49	808	6	8	871	0.91	22	76	52	0	150	0.87	1936	510	2446
7:45 AM - 8:45 AM	22	788	320	1	1131	0.94	230	59	73	0	362	0.86	50	769	7	11	837	0.88	26	66	47	0	139	0.81	1968	501	2469
8:00 AM - 9:00 AM	19	818	309	0	1146	0.91	213	52	75	0	340	0.81	51	745	9	11	816	0.85	26	55	45	0	126	0.9	1962	466	2428
4:00 PM - 5:00 PM	30	849	354	2	1235	0.9	357	54	98	0	509	0.87	63	614	27	13	717	0.89	16	51	26	0	93	0.7	1952	602	2554
4:15 PM - 5:15 PM	40	836	316	5	1197	0.97	377	47	103	0	527	0.9	56	669	26	14	765	0.89	16	59	22	0	97	0.73	1962	624	2586
4:30 PM - 5:30 PM	51	841	303	6	1201	0.98	384	57	94	0	535	0.92	62	749	26	17	854	0.86	18	60	27	0	105	0.8	2055	640	2695
4:45 PM - 5:45 PM	56	843	297	6	1202	0.98	409	65	89	0	563	0.96	64	766	25	15	870	0.88	15	59	31	0	105	0.8	2072	668	2740
5:00 PM - 6:00 PM	58	833	287	5	1183	0.97	386	65	76	0	527	0.93	69	776	25	16	886	0.89	15	42	29	0	86	0.77	2069	613	2682
5:15 PM - 6:15 PM	53	798	269	2	1122	0.93	365	74	75	0	514	0.91	75	744	29	14	862	0.87	16	38	32	0	86	0.77	1984	600	2584
5:30 PM - 6:30 PM	55	755	243	1	1054	0.91	346	65	83	0	494	0.88	71	691	24	13	799	0.92	14	37	29	0	80	0.8	1853	574	2427
5:45 PM - 6:45 PM	46	732	241	1	1020	0.89	301	62	85	0	448	0.89	60	652	18	14	744	0.86	15	38	28	0	81	0.81	1764	529	2293
6:00 PM - 7:00 PM	49	700	238	2	989	0.96	268	61	79	0	408	0.81	58	611	14	12	695	0.91	15	41	29	0	85	0.85	1684	493	2177

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Chain Bridge Rd. & Eaton
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Majda
INPUTED BY: agan
)UTHBOUND ROAD: Chain Bridge Road - 123
)RTHBOUND ROAD: Chain Bridge Road - 123
VESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

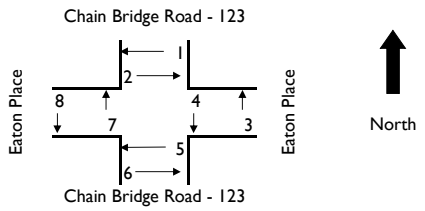
Time Period	Southbound Chain Bridge Road - 123				Westbound Eaton Place				Northbound Chain Bridge Road - 123				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0				0				0				0	0	0	0
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0		1		1	0	1	1
7:45 AM - 8:00 AM				0				0				0		1		1	0	1	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0		1		1				0				0	0	1	1
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0			1	1				0	1	0	1
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0		1		1	0	1	1
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0			1	1				0		1		1	0	2	2
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	0	0	0	0	0	1	1	2	0	0	1	1	0	4	0	4	1	6	7
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
8:00 AM - 9:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	2
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	1	1	2
5:00 PM - 6:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	0	3	3
5:15 PM - 6:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	0	3	3
5:30 PM - 6:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	2	2
5:45 PM - 6:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	2	2
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Chain Bridge Rd. & Eaton Pl.
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Ramiz
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM									0	0	0	0	0
6:15 AM - 6:30 AM									0	0	0	0	0
6:30 AM - 6:45 AM									0	0	0	0	0
6:45 AM - 7:00 AM									0	0	0	0	0
7:00 AM - 7:15 AM									0	0	0	0	0
7:15 AM - 7:30 AM									0	0	0	0	0
7:30 AM - 7:45 AM		1							1	0	0	0	1
7:45 AM - 8:00 AM									0	0	0	0	0
8:00 AM - 8:15 AM	1								1	0	0	0	1
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM									0	0	0	0	0
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM									0	0	0	0	0
4:15 PM - 4:30 PM						2			0	0	2	0	2
4:30 PM - 4:45 PM	3				1				3	0	1	0	4
4:45 PM - 5:00 PM									0	0	0	0	0
5:00 PM - 5:15 PM									0	0	0	0	0
5:15 PM - 5:30 PM									0	0	0	0	0
5:30 PM - 5:45 PM						1			0	0	1	0	1
5:45 PM - 6:00 PM					1	1			0	0	2	0	2
6:00 PM - 6:15 PM					1				0	0	1	0	1
6:15 PM - 6:30 PM									0	0	0	0	0
6:30 PM - 6:45 PM						1			0	0	1	0	1
6:45 PM - 7:00 PM						1			0	0	1	0	1
Total	4	1	0	0	3	6	0	0	5	0	9	0	14
One Hour Volumes													
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	1	0	0	0	0	0	0	1	0	0	0	1
7:00 AM - 8:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	1
7:15 AM - 8:15 AM	1	1	0	0	0	0	0	0	2	0	0	0	2
7:30 AM - 8:30 AM	1	1	0	0	0	0	0	0	2	0	0	0	2
7:45 AM - 8:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM - 9:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
4:00 PM - 5:00 PM	3	0	0	0	1	2	0	0	3	0	3	0	6
4:15 PM - 5:15 PM	3	0	0	0	1	2	0	0	3	0	3	0	6
4:30 PM - 5:30 PM	3	0	0	0	1	0	0	0	3	0	1	0	4
4:45 PM - 5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	1
5:00 PM - 6:00 PM	0	0	0	0	1	2	0	0	0	0	3	0	3
5:15 PM - 6:15 PM	0	0	0	0	2	2	0	0	0	0	4	0	4
5:30 PM - 6:30 PM	0	0	0	0	2	2	0	0	0	0	4	0	4
5:45 PM - 6:45 PM	0	0	0	0	2	2	0	0	0	0	4	0	4
6:00 PM - 7:00 PM	0	0	0	0	1	2	0	0	0	0	3	0	3

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & Service Drive
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: Service Drive
NORTHBOUND ROAD: Service Drive
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time Period	Southbound Service Drive						Westbound Eaton Place						Northbound Service Drive						Eastbound Eaton Place						North & South	East & West	Total
	Right	Thru	Left	J-Turn	Total	PHF	Right	Thru	Left	J-Turn	Total	PHF	Right	Thru	Left	J-Turn	Total	PHF	Right	Thru	Left	J-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	17	6	11	0	34		0	2	0	0	2		1	0	0	0	1		0	23	4	0	27		35	29	64
6:15 AM - 6:30 AM	22	2	12	0	36		1	16	0	0	17		0	0	0	0	0		0	28	4	0	32		36	49	85
6:30 AM - 6:45 AM	32	0	5	0	37		1	22	0	0	23		4	0	0	0	4		1	33	6	0	40		41	63	104
6:45 AM - 7:00 AM	37	0	5	0	42		5	30	0	0	35		0	0	0	0	0		1	59	13	0	73		42	108	150
7:00 AM - 7:15 AM	24	0	13	0	37		0	26	0	0	26		3	0	0	0	3		1	49	12	0	62		40	88	128
7:15 AM - 7:30 AM	31	0	14	0	45		4	43	0	0	47		0	0	1	0	1		0	56	10	0	66		46	113	159
7:30 AM - 7:45 AM	28	3	9	0	40		9	53	0	0	62		1	0	3	0	4		1	85	12	0	98		44	160	204
7:45 AM - 8:00 AM	35	1	14	0	50		9	52	0	0	61		2	1	1	0	4		0	143	12	0	155		54	216	270
8:00 AM - 8:15 AM	30	3	15	0	48		11	59	0	0	70		1	0	1	0	2		1	121	9	0	131		50	201	251
8:15 AM - 8:30 AM	46	0	8	0	54		3	56	0	0	59		0	1	0	0	1		2	74	13	0	89		55	148	203
8:30 AM - 8:45 AM	43	4	6	0	53		2	57	0	0	59		4	1	0	0	5		0	78	16	0	94		58	153	211
8:45 AM - 9:00 AM	28	0	3	0	31		5	32	0	0	37		1	0	5	0	6		1	95	15	0	111		37	148	185
4:00 PM - 4:15 PM	17	1	10	0	28		17	105	0	0	122		1	0	2	0	3		0	104	30	0	134		31	256	287
4:15 PM - 4:30 PM	32	0	9	0	41		18	84	1	0	103		0	2	1	0	3		1	76	43	0	120		44	223	267
4:30 PM - 4:45 PM	32	1	9	0	42		13	92	1	0	106		1	3	1	0	5		1	74	30	0	105		47	211	258
4:45 PM - 5:00 PM	33	1	8	0	42		10	119	1	0	130		0	2	2	0	4		0	62	31	0	93		46	223	269
5:00 PM - 5:15 PM	26	1	9	0	36		8	82	1	0	91		1	0	2	0	3		1	61	33	0	95		39	186	225
5:15 PM - 5:30 PM	19	0	11	0	30		13	128	0	0	141		1	2	0	0	3		1	74	35	0	110		33	251	284
5:30 PM - 5:45 PM	26	18	7	0	51		13	131	0	0	144		0	7	0	0	7		0	66	46	0	112		58	256	314
5:45 PM - 6:00 PM	27	4	9	0	40		8	64	1	0	73		1	2	0	0	3		0	54	32	0	86		43	159	202
6:00 PM - 6:15 PM	38	0	8	0	46		13	88	0	0	101		2	0	0	0	2		0	53	32	0	85		48	186	234
6:15 PM - 6:30 PM	31	0	9	0	40		11	93	0	0	104		1	2	2	0	5		0	38	37	0	75		45	179	224
6:30 PM - 6:45 PM	30	18	7	0	55		7	69	0	0	76		0	3	1	0	4		5	57	36	0	98		59	174	233
6:45 PM - 7:00 PM	14	0	5	0	19		9	50	0	0	59		3	0	1	0	4		0	62	35	0	97		23	156	179
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	698	63	216	0	977		190	1553	5	0	1748		28	26	23	0	77		17	1625	546	0	2188		1054	3936	4990
One Hour Volumes																											
6:00 AM - 7:00 AM	108	8	33	0	149	0.89	7	70	0	0	77	0.55	5	0	0	0	5	0.31	2	143	27	0	172	0.59	154	249	403
6:15 AM - 7:15 AM	115	2	35	0	152	0.9	7	94	0	0	101	0.72	7	0	0	0	7	0.44	3	169	35	0	207	0.71	159	308	467
6:30 AM - 7:30 AM	124	0	37	0	161	0.89	10	121	0	0	131	0.7	7	0	1	0	8	0.5	3	197	41	0	241	0.83	169	372	541
6:45 AM - 7:45 AM	120	3	41	0	164	0.91	18	152	0	0	170	0.69	4	0	4	0	8	0.5	3	249	47	0	299	0.76	172	469	641
7:00 AM - 8:00 AM	118	4	50	0	172	0.86	22	174	0	0	196	0.79	6	1	5	0	12	0.75	2	333	46	0	381	0.61	184	577	761
7:15 AM - 8:15 AM	124	7	52	0	183	0.92	33	207	0	0	240	0.86	4	1	6	0	11	0.69	2	405	43	0	450	0.73	194	690	884
7:30 AM - 8:30 AM	139	7	46	0	192	0.89	32	220	0	0	252	0.9	4	2	5	0	11	0.69	4	423	46	0	473	0.76	203	725	928
7:45 AM - 8:45 AM	154	8	43	0	205	0.95	25	224	0	0	249	0.89	7	3	2	0	12	0.6	3	416	50	0	469	0.76	217	718	935
8:00 AM - 9:00 AM	147	7	32	0	186	0.86	21	204	0	0	225	0.8	6	2	6	0	14	0.58	4	368	53	0	425	0.81	200	650	850
4:00 PM - 5:00 PM	114	3	36	0	153	0.91	58	400	3	0	461	0.89	2	7	6	0	15	0.75	2	316	134	0	452	0.84	168	913	1081
4:15 PM - 5:15 PM	123	3	35	0	161	0.96	49	377	4	0	430	0.83	2	7	6	0	15	0.75	3	273	137	0	413	0.86	176	843	1019
4:30 PM - 5:30 PM	110	3	37	0	150	0.89	44	421	3	0	468	0.83	3	7	5	0	15	0.75	3	271	129	0	403	0.92	165	871	1036
4:45 PM - 5:45 PM	104	20	35	0	159	0.78	44	460	2	0	506	0.88	2	11	4	0	17	0.61	2	263	145	0	410	0.92	176	916	1092
5:00 PM - 6:00 PM	98	23	36	0	157	0.77	42	405	2	0	449	0.78	3	11	2	0	16	0.57	2	255	146	0	403	0.9	173	852	1025
5:15 PM - 6:15 PM	110	22	35	0	167	0.82	47	411	1	0	459	0.8	4	11	0	0	15	0.54	1	247	145	0	393	0.88	182	852	1034
5:30 PM - 6:30 PM	122	22	33	0	177	0.87	45	376	1	0	422	0.73	4	11	2	0	17	0.61	0	211	147	0	358	0.8	194	780	974
5:45 PM - 6:45 PM	126	22	33	0	181	0.82	39	314	1	0	354	0.85	4	7	3	0	14	0.7	5	202	137	0	344	0.88	195	698	893
6:00 PM - 7:00 PM	113	18	29	0	160	0.73	40	300	0	0	340	0.82	6	5	4	0	15	0.75	5	210	140	0	355	0.91	175	695	870

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT:	Willowwood Plaza	**DATE:**	5/3/2022	**UTHBOUND ROAD:**	Service Drive
W+A JOB NO:	8738	**DAY:**	Tuesday	**RTHBOUND ROAD:**	Service Drive
INTERSECTION:	Eaton Pl. & Service Driv	**WEATHER:**	clear	**/ESTBOUND ROAD:**	Eaton Place
LOCATION:	Fairfax County,VA	**COUNTED BY:**	Agan	**:ASTBOUND ROAD:**	Eaton Place
		INPUTED BY:	agan		

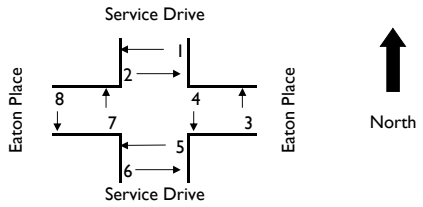
Time Period	Southbound Service Drive				Westbound Eaton Place				Northbound Service Drive				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM			1	1				0				0				0	1	0	1
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0				0				0				0	0	0	0
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM		1		1				0				0		1		1	1	1	2
7:45 AM - 8:00 AM		3		3				0				0		1		1	3	1	4
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM	1			1				0				0				0	1	0	1
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0				0	0	0	0
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0		3		3				0	3	0	3
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM		1		1				0				0				0	1	0	1
Total	1	5	1	7	0	0	0	0	0	3	0	3	0	2	0	2	10	2	12
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2
7:00 AM - 8:00 AM	0	4	0	4	0	0	0	0	0	0	0	0	0	2	0	2	4	2	6
7:15 AM - 8:15 AM	0	4	0	4	0	0	0	0	0	0	0	0	0	2	0	2	4	2	6
7:30 AM - 8:30 AM	0	4	0	4	0	0	0	0	0	0	0	0	0	2	0	2	4	2	6
7:45 AM - 8:45 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	1	0	1	3	1	4
8:00 AM - 9:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3	0	3
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3	0	3
6:00 PM - 7:00 PM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4	0	4

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Eaton Pl. & Service Drive
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period	1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM			1						0	1	0	0	1
6:15 AM - 6:30 AM				1					0	1	0	0	1
6:30 AM - 6:45 AM				2					0	2	0	0	2
6:45 AM - 7:00 AM									0	0	0	0	0
7:00 AM - 7:15 AM			1						0	1	0	0	1
7:15 AM - 7:30 AM				1					0	1	0	0	1
7:30 AM - 7:45 AM				2	1	1			0	2	2	0	4
7:45 AM - 8:00 AM				2	2				0	2	2	0	4
8:00 AM - 8:15 AM		2	1	1	2				2	2	2	0	6
8:15 AM - 8:30 AM			1			1			0	1	1	0	2
8:30 AM - 8:45 AM			1						0	1	0	0	1
8:45 AM - 9:00 AM			4						0	4	0	0	4
4:00 PM - 4:15 PM		1	1						1	1	0	0	2
4:15 PM - 4:30 PM			1		2				0	1	2	0	3
4:30 PM - 4:45 PM		1	2	3					1	5	0	0	6
4:45 PM - 5:00 PM		1	1						1	1	0	0	2
5:00 PM - 5:15 PM			4						0	4	0	0	4
5:15 PM - 5:30 PM		2		1					2	1	0	0	3
5:30 PM - 5:45 PM				1	2				0	1	2	0	3
5:45 PM - 6:00 PM		3	2		2				3	2	2	0	7
6:00 PM - 6:15 PM			1	1					0	2	0	0	2
6:15 PM - 6:30 PM		2	5						2	5	0	0	7
6:30 PM - 6:45 PM		1	1		1				1	1	1	0	3
6:45 PM - 7:00 PM			1						0	1	0	0	1
Total	0	13	28	15	12	2	0	0	13	43	14	0	70
One Hour Volumes													
6:00 AM - 7:00 AM	0	0	1	3	0	0	0	0	0	4	0	0	4
6:15 AM - 7:15 AM	0	0	1	3	0	0	0	0	0	4	0	0	4
6:30 AM - 7:30 AM	0	0	1	3	0	0	0	0	0	4	0	0	4
6:45 AM - 7:45 AM	0	0	1	3	1	1	0	0	0	4	2	0	6
7:00 AM - 8:00 AM	0	0	1	5	3	1	0	0	0	6	4	0	10
7:15 AM - 8:15 AM	0	2	1	6	5	1	0	0	2	7	6	0	15
7:30 AM - 8:30 AM	0	2	2	5	5	2	0	0	2	7	7	0	16
7:45 AM - 8:45 AM	0	2	3	3	4	1	0	0	2	6	5	0	13
8:00 AM - 9:00 AM	0	2	7	1	2	1	0	0	2	8	3	0	13
4:00 PM - 5:00 PM	0	3	5	3	2	0	0	0	3	8	2	0	13
4:15 PM - 5:15 PM	0	2	8	3	2	0	0	0	2	11	2	0	15
4:30 PM - 5:30 PM	0	4	7	4	0	0	0	0	4	11	0	0	15
4:45 PM - 5:45 PM	0	3	5	2	2	0	0	0	3	7	2	0	12
5:00 PM - 6:00 PM	0	5	6	2	4	0	0	0	5	8	4	0	17
5:15 PM - 6:15 PM	0	5	3	3	4	0	0	0	5	6	4	0	15
5:30 PM - 6:30 PM	0	5	8	2	4	0	0	0	5	10	4	0	19
5:45 PM - 6:45 PM	0	6	9	1	3	0	0	0	6	10	3	0	19
6:00 PM - 7:00 PM	0	3	8	1	1	0	0	0	3	9	1	0	13

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Passenger Cars

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Fairfax Blvd. & Eaton Pl.
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: James,Inita & Austin
INPUTED BY: agan

SOUTHBOUND ROAD: Eaton Place
NORTHBOUND ROAD: Driveway
WESTBOUND ROAD: Fairfax Boulevard - 50
EASTBOUND ROAD: Fairfax Boulevard - 50

Time Period	Southbound Eaton Place					Westbound Fairfax Boulevard - 50					Northbound Driveway					Eastbound Fairfax Boulevard - 50					North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total			
15 Minute Volumes																							
6:00 AM - 6:15 AM	5	0	21		26	10	57	0		67	0	0	0		0	0	117	2		119	26	186	212
6:15 AM - 6:30 AM	2	0	22		24	12	91	1		104	0	0	0		0	0	173	4		177	24	281	305
6:30 AM - 6:45 AM	5	0	39		44	21	97	1		119	0	0	0		0	0	234	14		248	44	367	411
6:45 AM - 7:00 AM	1	0	47		48	27	124	1		152	1	0	0		1	1	218	1		220	49	372	421
7:00 AM - 7:15 AM	2	0	56		58	34	112	0		146	0	0	0		0	0	201	3		204	58	350	408
7:15 AM - 7:30 AM	2	0	39		41	32	150	0		182	0	0	0		0	1	283	3		287	41	469	510
7:30 AM - 7:45 AM	1	0	62		63	48	162	3		213	0	0	0		0	0	291	1		292	63	505	568
7:45 AM - 8:00 AM	1	1	118		120	49	159	1		209	0	0	1		1	1	405	9		415	121	624	745
8:00 AM - 8:15 AM	2	1	68		71	65	255	4		324	1	0	1		2	0	387	12		399	73	723	796
8:15 AM - 8:30 AM	5	0	44		49	43	219	2		264	0	0	0		0	0	269	17		286	49	550	599
8:30 AM - 8:45 AM	5	0	59		64	44	184	1		229	1	0	0		1	1	297	12		310	65	539	604
8:45 AM - 9:00 AM	3	0	22		25	16	156	0		172	1	0	3		4	1	214	12		227	29	399	428
4:00 PM - 4:15 PM	16	0	122		138	72	375	2		449	2	1	2		5	0	298	5		303	143	752	895
4:15 PM - 4:30 PM	13	2	93		108	79	321	5		405	1	0	2		3	2	313	9		324	111	729	840
4:30 PM - 4:45 PM	14	1	74		89	69	326	0		395	3	0	4		7	1	278	7		286	96	681	777
4:45 PM - 5:00 PM	13	0	63		76	89	383	2		474	0	1	0		1	1	225	7		233	77	707	784
5:00 PM - 5:15 PM	13	0	79		92	80	355	1		436	0	0	1		1	0	264	7		271	93	707	800
5:15 PM - 5:30 PM	17	0	79		96	103	354	1		458	1	0	1		2	0	256	8		264	98	722	820
5:30 PM - 5:45 PM	14	0	72		86	91	366	0		457	0	1	1		2	0	243	9		252	88	709	797
5:45 PM - 6:00 PM	17	0	68		85	68	302	2		372	1	1	4		6	1	241	8		250	91	622	713
6:00 PM - 6:15 PM	14	0	51		65	72	312	4		388	5	3	4		12	1	217	4		222	77	610	687
6:15 PM - 6:30 PM	5	1	35		41	53	334	4		391	2	0	3		5	0	203	3		206	46	597	643
6:30 PM - 6:45 PM	12	0	80		92	46	240	2		288	0	1	2		3	0	236	4		240	95	528	623
6:45 PM - 7:00 PM	10	0	66		76	56	330	2		388	1	0	1		2	0	215	6		221	78	609	687
Total	192	6	1479	0	1677	1279	5764	39	0	7082	20	8	30	0	58	11	6078	167	0	6256	1735	13338	15073
One Hour Volumes																							
6:00 AM - 7:00 AM	13	0	129	0	142	70	369	3	0	442	1	0	0	0	1	1	742	21	0	764	143	1206	1349
6:15 AM - 7:15 AM	10	0	164	0	174	94	424	3	0	521	1	0	0	0	1	1	826	22	0	849	175	1370	1545
6:30 AM - 7:30 AM	10	0	181	0	191	114	483	2	0	599	1	0	0	0	1	2	936	21	0	959	192	1558	1750
6:45 AM - 7:45 AM	6	0	204	0	210	141	548	4	0	693	1	0	0	0	1	2	993	8	0	1003	211	1696	1907
7:00 AM - 8:00 AM	6	1	275	0	282	163	583	4	0	750	0	0	1	0	1	2	1180	16	0	1198	283	1948	2231
7:15 AM - 8:15 AM	6	2	287	0	295	194	726	8	0	928	1	0	2	0	3	2	1366	25	0	1393	298	2321	2619
7:30 AM - 8:30 AM	9	2	292	0	303	205	795	10	0	1010	1	0	2	0	3	1	1352	39	0	1392	306	2402	2708
7:45 AM - 8:45 AM	13	2	289	0	304	201	817	8	0	1026	2	0	2	0	4	2	1358	50	0	1410	308	2436	2744
8:00 AM - 9:00 AM	15	1	193	0	209	168	814	7	0	989	3	0	4	0	7	2	1167	53	0	1222	216	2211	2427
4:00 PM - 5:00 PM	56	3	352	0	411	309	1405	9	0	1723	6	2	8	0	16	4	1114	28	0	1146	427	2869	3296
4:15 PM - 5:15 PM	53	3	309	0	365	317	1385	8	0	1710	4	1	7	0	12	4	1080	30	0	1114	377	2824	3201
4:30 PM - 5:30 PM	57	1	295	0	353	341	1418	4	0	1763	4	1	6	0	11	2	1023	29	0	1054	364	2817	3181
4:45 PM - 5:45 PM	57	0	293	0	350	363	1458	4	0	1825	1	2	3	0	6	1	988	31	0	1020	356	2845	3201
5:00 PM - 6:00 PM	61	0	298	0	359	342	1377	4	0	1723	2	2	7	0	11	1	1004	32	0	1037	370	2760	3130
5:15 PM - 6:15 PM	62	0	270	0	332	334	1334	7	0	1675	7	5	10	0	22	2	957	29	0	988	354	2663	3017
5:30 PM - 6:30 PM	50	1	226	0	277	284	1314	10	0	1608	8	5	12	0	25	2	904	24	0	930	302	2538	2840
5:45 PM - 6:45 PM	48	1	234	0	283	239	1188	12	0	1439	8	5	13	0	26	2	897	19	0	918	309	2357	2666
6:00 PM - 7:00 PM	41	1	232	0	274	227	1216	12	0	1455	8	4	10	0	22	1	871	17	0	889	296	2344	2640

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Heavy Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Fairfax Blvd. & Eaton Pl.
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: James,Inita & Austin
INPUTED BY: agan

SOUTHBOUND ROAD: Eaton Place
NORTHBOUND ROAD: Driveway
WESTBOUND ROAD: Fairfax Boulevard - 50
EASTBOUND ROAD: Fairfax Boulevard - 50

Time Period	Southbound Eaton Place					Westbound Fairfax Boulevard - 50					Northbound Driveway					Eastbound Fairfax Boulevard - 50					North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total			
15 Minute Volumes																							
6:00 AM - 6:15 AM		1			1			0		0	0	0	0		0	0				0	1	0	1
6:15 AM - 6:30 AM		0			0			0		0	0	0	0		0	1				1	0	1	1
6:30 AM - 6:45 AM		0			0			0		0	0	0	0		0	0				0	0	0	0
6:45 AM - 7:00 AM		0			0			0		0	1	0	0		1	0				0	1	0	1
7:00 AM - 7:15 AM		0			0			0		0	0	0	1		1	0				0	1	0	1
7:15 AM - 7:30 AM		0			0			0		0	0	0	0		0	1				1	0	1	1
7:30 AM - 7:45 AM		0			0			0		0	0	0	0		0	1				1	0	1	1
7:45 AM - 8:00 AM		0			0			1		1	0	0	0		0	0				0	0	1	1
8:00 AM - 8:15 AM		0			0			0		0	0	0	2		2	1				1	2	1	3
8:15 AM - 8:30 AM		0			0			1		1	0	0	1		1	1				1	1	2	3
8:30 AM - 8:45 AM		0			0			0		0	1	0	1		2	1				1	2	1	3
8:45 AM - 9:00 AM		0			0			0		0	0	0	0		0	0				0	0	0	0
4:00 PM - 4:15 PM		0			0			2		2	1	1	1		3	1				1	3	3	6
4:15 PM - 4:30 PM		1			1			0		0	2	1	3		6	3				3	7	3	10
4:30 PM - 4:45 PM		1			1			1		1	2	0	5		7	2				2	8	3	11
4:45 PM - 5:00 PM		2			2			2		2	0	1	0		1	2				2	3	4	7
5:00 PM - 5:15 PM		1			1			2		2	0	0	1		1	1				1	2	3	5
5:15 PM - 5:30 PM		0			0			3		3	2	2	2		6	4				4	6	7	13
5:30 PM - 5:45 PM		1			1			2		2	1	2	1		4	1				1	5	3	8
5:45 PM - 6:00 PM		2			2			3		3	1	1	4		6	3				3	8	6	14
6:00 PM - 6:15 PM		2			2			1		1	4	1	5		10	4				4	12	5	17
6:15 PM - 6:30 PM		1			1			2		2	3	1	2		6	2				2	7	4	11
6:30 PM - 6:45 PM		0			0			2		2	0	2	2		4	2				2	4	4	8
6:45 PM - 7:00 PM		1			1			1		1	1	0	2		3	1				1	4	2	6
Total	0	13	0	0	13	0	0	23	0	23	19	12	33	0	64	32	0	0	0	32	77	55	132
One Hour Volumes																							
6:00 AM - 7:00 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2	1	3
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0	0	1	2	1	3
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0	0	1	2	1	3
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	0	0	0	2	2	2	4
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2	0	0	0	2	1	3	4
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	3	0	0	0	3	2	4	6
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	2	0	2	0	0	3	0	3	3	0	0	0	3	3	5	8
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	2	0	2	1	0	4	0	5	3	0	0	0	3	5	5	10
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	4	0	5	3	0	0	0	3	5	4	9
4:00 PM - 5:00 PM	0	4	0	0	4	0	0	5	0	5	5	3	9	0	17	8	0	0	0	8	21	13	34
4:15 PM - 5:15 PM	0	5	0	0	5	0	0	5	0	5	4	2	9	0	15	8	0	0	0	8	20	13	33
4:30 PM - 5:30 PM	0	4	0	0	4	0	0	8	0	8	4	3	8	0	15	9	0	0	0	9	19	17	36
4:45 PM - 5:45 PM	0	4	0	0	4	0	0	9	0	9	3	5	4	0	12	8	0	0	0	8	16	17	33
5:00 PM - 6:00 PM	0	4	0	0	4	0	0	10	0	10	4	5	8	0	17	9	0	0	0	9	21	19	40
5:15 PM - 6:15 PM	0	5	0	0	5	0	0	9	0	9	8	6	12	0	26	12	0	0	0	12	31	21	52
5:30 PM - 6:30 PM	0	6	0	0	6	0	0	8	0	8	9	5	12	0	26	10	0	0	0	10	32	18	50
5:45 PM - 6:45 PM	0	5	0	0	5	0	0	8	0	8	8	5	13	0	26	11	0	0	0	11	31	19	50
6:00 PM - 7:00 PM	0	4	0	0	4	0	0	6	0	6	8	4	11	0	23	9	0	0	0	9	27	15	42

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT:	Willowwood Plaza	**DATE:**	5/3/2022	**UTHBOUND ROAD:**	Eaton Place
W+A JOB NO:	8738	**DAY:**	Tuesday	**RTHBOUND ROAD:**	Driveway
INTERSECTION:	Fairfax Blvd. & Eaton Pl.	**WEATHER:**	clear	**/ESTBOUND ROAD:**	Fairfax Boulevard - 50
LOCATION:	Fairfax County,VA	**COUNTED BY:**	Inita	**:ASTBOUND ROAD:**	Fairfax Boulevard - 50
		INPUTED BY:	agan		

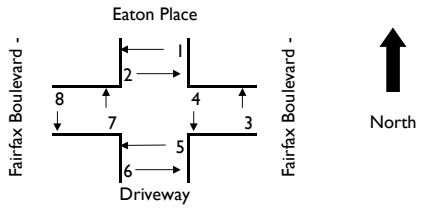
Time Period	Southbound Eaton Place				Westbound Fairfax Boulevard - 50				Northbound Driveway				Eastbound Fairfax Boulevard - 50				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM			1	1				0				0				0	1	0	1
6:15 AM - 6:30 AM				0		1		1				0				0	0	1	1
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0				0				0				0	0	0	0
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0				0	0	0	0
7:45 AM - 8:00 AM				0				0				0				0	0	0	0
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0		1		1	0	1	1
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0		2		2	0	2	2
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0		1		1				0				0	0	1	1
5:15 PM - 5:30 PM				0		2		2				0		1		1	0	3	3
5:30 PM - 5:45 PM			1	1				0				0				0	1	0	1
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0		3		3	0	3	3
6:45 PM - 7:00 PM				0		2		2				0				0	0	2	2
Total	0	0	2	2	0	6	0	6	0	0	0	0	0	7	0	7	2	13	15
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
6:15 AM - 7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
4:15 PM - 5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	0	3	3
4:30 PM - 5:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	0	4	4
4:45 PM - 5:45 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	1	0	1	1	4	5
5:00 PM - 6:00 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	1	0	1	1	4	5
5:15 PM - 6:15 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	1	0	1	1	3	4
5:30 PM - 6:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	3
6:00 PM - 7:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	0	5	5

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Fairfax Blvd. & Eaton Pl.
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: James
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM		1							1	0	0	0	1
6:15 AM - 6:30 AM						2			0	0	2	0	2
6:30 AM - 6:45 AM					1	1			0	0	2	0	2
6:45 AM - 7:00 AM	1					3			1	0	3	0	4
7:00 AM - 7:15 AM						1			0	0	1	0	1
7:15 AM - 7:30 AM									0	0	0	0	0
7:30 AM - 7:45 AM									0	0	0	0	0
7:45 AM - 8:00 AM	1								1	0	0	0	1
8:00 AM - 8:15 AM									0	0	0	0	0
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM						1			0	0	1	0	1
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM						1			0	0	1	0	1
4:15 PM - 4:30 PM						1			0	0	1	0	1
4:30 PM - 4:45 PM									0	0	0	0	0
4:45 PM - 5:00 PM									0	0	0	0	0
5:00 PM - 5:15 PM									0	0	0	0	0
5:15 PM - 5:30 PM		1				4		2	1	0	4	2	7
5:30 PM - 5:45 PM					2		1		0	0	2	1	3
5:45 PM - 6:00 PM	2	2	1		1		1	2	4	1	1	3	9
6:00 PM - 6:15 PM									0	0	0	0	0
6:15 PM - 6:30 PM	1						2	2	1	0	0	4	5
6:30 PM - 6:45 PM		1			1			2	1	0	1	2	4
6:45 PM - 7:00 PM							2		0	0	0	2	2
Total	5	5	1	0	5	14	6	8	10	1	19	14	44
One Hour Volumes													
6:00 AM - 7:00 AM	1	1	0	0	1	6	0	0	2	0	7	0	9
6:15 AM - 7:15 AM	1	0	0	0	1	7	0	0	1	0	8	0	9
6:30 AM - 7:30 AM	1	0	0	0	1	5	0	0	1	0	6	0	7
6:45 AM - 7:45 AM	1	0	0	0	0	4	0	0	1	0	4	0	5
7:00 AM - 8:00 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
7:15 AM - 8:15 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM - 8:30 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM - 8:45 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
8:00 AM - 9:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	1
4:00 PM - 5:00 PM	0	0	0	0	0	2	0	0	0	0	2	0	2
4:15 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	0	1	0	1
4:30 PM - 5:30 PM	0	1	0	0	0	4	0	2	1	0	4	2	7
4:45 PM - 5:45 PM	0	1	0	0	2	4	1	2	1	0	6	3	10
5:00 PM - 6:00 PM	2	3	1	0	3	4	2	4	5	1	7	6	19
5:15 PM - 6:15 PM	2	3	1	0	3	4	2	4	5	1	7	6	19
5:30 PM - 6:30 PM	3	2	1	0	3	0	4	4	5	1	3	8	17
5:45 PM - 6:45 PM	3	3	1	0	2	0	3	6	6	1	2	9	18
6:00 PM - 7:00 PM	1	1	0	0	1	0	4	4	2	0	1	8	11

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & Mostwest Site Driveway
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: Mostwest Site Driveway 2
NORTHBOUND ROAD: Office Driveway
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time	Southbound Mostwest Site Driveway 2						Westbound Eaton Place						Northbound Office Driveway						Eastbound Eaton Place						North & South	East & West	Total
Period	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		1	0	2	0	3		1	3	4
6:15 AM - 6:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	3	0	3		0	3	3
6:30 AM - 6:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	4	0	4		0	4	4
6:45 AM - 7:00 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	10	0	10		1	10	11
7:00 AM - 7:15 AM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		0	0	4	0	4		1	6	7
7:15 AM - 7:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	12	0	12		0	12	12
7:30 AM - 7:45 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	17	0	17		1	17	18
7:45 AM - 8:00 AM	1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		1	0	17	0	18		1	18	19
8:00 AM - 8:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		2	0	17	0	19		0	19	19
8:15 AM - 8:30 AM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		0	0	28	0	28		1	30	31
8:30 AM - 8:45 AM	0	0	0	0	0		4	0	0	0	4		0	0	0	0	0		0	0	20	0	20		0	24	24
8:45 AM - 9:00 AM	2	0	1	0	3		4	0	0	0	4		0	0	0	0	0		0	0	25	0	25		3	29	32
4:00 PM - 4:15 PM	16	0	4	0	20		0	0	0	0	0		0	0	0	0	0		0	0	5	0	5		20	5	25
4:15 PM - 4:30 PM	16	0	2	0	18		3	0	0	0	3		0	0	0	0	0		1	0	2	0	3		18	6	24
4:30 PM - 4:45 PM	15	0	6	0	21		1	0	0	0	1		1	0	0	0	1		0	0	4	0	4		22	5	27
4:45 PM - 5:00 PM	12	0	3	0	15		1	0	0	0	1		0	0	0	0	0		0	0	3	0	3		15	4	19
5:00 PM - 5:15 PM	16	0	3	0	19		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		19	1	20
5:15 PM - 5:30 PM	16	1	2	0	19		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		19	2	21
5:30 PM - 5:45 PM	11	0	1	0	12		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		12	1	13
5:45 PM - 6:00 PM	11	0	3	0	14		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		14	0	14
6:00 PM - 6:15 PM	5	0	0	0	5		0	0	0	0	0		0	0	0	0	0		0	0	2	0	2		5	2	7
6:15 PM - 6:30 PM	9	0	1	0	10		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		10	0	10
6:30 PM - 6:45 PM	6	0	0	0	6		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		6	0	6
6:45 PM - 7:00 PM	4	0	1	0	5		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		5	1	6
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	144	1	27	0	172		20	0	0	0	20		1	0	1	0	2		5	0	177	0	182		174	202	376
One Hour Volumes																											
6:00 AM - 7:00 AM	1	0	0	0	1	0.25	0	0	0	0	0		0	0	1	0	1	0.25	1	0	19	0	20	0.5	2	20	22
6:15 AM - 7:15 AM	2	0	0	0	2	0.5	2	0	0	0	2	0.25	0	0	0	0	0		0	0	21	0	21	0.53	2	23	25
6:30 AM - 7:30 AM	2	0	0	0	2	0.5	2	0	0	0	2	0.25	0	0	0	0	0		0	0	30	0	30	0.63	2	32	34
6:45 AM - 7:45 AM	3	0	0	0	3	0.75	2	0	0	0	2	0.25	0	0	0	0	0		0	0	43	0	43	0.63	3	45	48
7:00 AM - 8:00 AM	3	0	0	0	3	0.75	2	0	0	0	2	0.25	0	0	0	0	0		1	0	50	0	51	0.71	3	53	56
7:15 AM - 8:15 AM	2	0	0	0	2	0.5	0	0	0	0	0		0	0	0	0	0		3	0	63	0	66	0.87	2	66	68
7:30 AM - 8:30 AM	3	0	0	0	3	0.75	2	0	0	0	2	0.25	0	0	0	0	0		3	0	79	0	82	0.73	3	84	87
7:45 AM - 8:45 AM	2	0	0	0	2	0.5	6	0	0	0	6	0.38	0	0	0	0	0		3	0	82	0	85	0.76	2	91	93
8:00 AM - 9:00 AM	3	0	1	0	4	0.33	10	0	0	0	10	0.63	0	0	0	0	0		2	0	90	0	92	0.82	4	102	106
4:00 PM - 5:00 PM	59	0	15	0	74	0.88	5	0	0	0	5	0.42	1	0	0	0	1	0.25	1	0	14	0	15	0.75	75	20	95
4:15 PM - 5:15 PM	59	0	14	0	73	0.87	6	0	0	0	6	0.5	1	0	0	0	1	0.25	1	0	9	0	10	0.63	74	16	90
4:30 PM - 5:30 PM	59	1	14	0	74	0.88	4	0	0	0	4	1	1	0	0	0	1	0.25	0	0	8	0	8	0.5	75	12	87
4:45 PM - 5:45 PM	55	1	9	0	65	0.86	4	0	0	0	4	1	0	0	0	0	0		0	0	4	0	4	0.33	65	8	73
5:00 PM - 6:00 PM	54	1	9	0	64	0.84	3	0	0	0	3	0.75	0	0	0	0	0		0	0	1	0	1	0.25	64	4	68
5:15 PM - 6:15 PM	43	1	6	0	50	0.66	2	0	0	0	2	0.5	0	0	0	0	0		0	0	3	0	3	0.38	50	5	55
5:30 PM - 6:30 PM	36	0	5	0	41	0.73	1	0	0	0	1	0.25	0	0	0	0	0		0	0	2	0	2	0.25	41	3	44
5:45 PM - 6:45 PM	31	0	4	0	35	0.63	0	0	0	0	0		0	0	0	0	0		0	0	2	0	2	0.25	35	2	37
6:00 PM - 7:00 PM	24	0	2	0	26	0.65	0	0	0	0	0		0	0	0	0	0		0	0	3	0	3	0.38	26	3	29

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & Mostwest Site Drive 2
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
)UTHBOUND ROAD: Mostwest Site Driveway 2
)RTHBOUND ROAD: Office Driveway
VESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

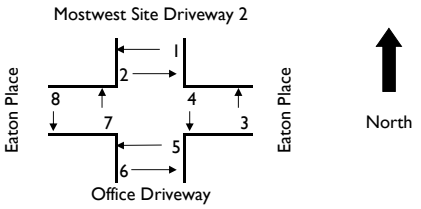
Time Period	Southbound Mostwest Site Driveway 2				Westbound Eaton Place				Northbound Office Driveway				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0		1		1				0				0	0	1	1
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0		1		1	0	1	1
7:45 AM - 8:00 AM				0				0				0		1		1	0	1	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0		1		1				0				0	0	1	1
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0		1		1				0				0	0	1	1
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	0	5	5
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:15 AM - 7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:30 AM - 7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:45 AM - 7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:15 PM - 5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:30 PM - 5:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
4:45 PM - 5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
5:00 PM - 6:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
5:15 PM - 6:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Eaton Pl. & Mostwest Site Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM		1							1	0	0	0	1
6:15 AM - 6:30 AM						1			0	0	1	0	1
6:30 AM - 6:45 AM			1			1			0	1	1	0	2
6:45 AM - 7:00 AM		1		1		1			1	1	1	0	3
7:00 AM - 7:15 AM					1				0	0	1	0	1
7:15 AM - 7:30 AM	1								1	0	0	0	1
7:30 AM - 7:45 AM						1			0	0	1	0	1
7:45 AM - 8:00 AM									0	0	0	0	0
8:00 AM - 8:15 AM				1	1				0	1	1	0	2
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM									0	0	0	0	0
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM						1			0	0	1	0	1
4:15 PM - 4:30 PM	1		1						1	1	0	0	2
4:30 PM - 4:45 PM	1				2				1	0	2	0	3
4:45 PM - 5:00 PM		2							2	0	0	0	2
5:00 PM - 5:15 PM	1				1				1	0	1	0	2
5:15 PM - 5:30 PM		1			1				1	0	1	0	2
5:30 PM - 5:45 PM		2	1	1	2	2			2	2	4	0	8
5:45 PM - 6:00 PM		1				2			1	0	2	0	3
6:00 PM - 6:15 PM	4	2		3	1				6	3	1	0	10
6:15 PM - 6:30 PM	2	5		1	1				7	1	1	0	9
6:30 PM - 6:45 PM	1	2	1			1			3	1	1	0	5
6:45 PM - 7:00 PM	1	1							2	0	0	0	2
Total	12	18	4	7	10	10	0	0	30	11	20	0	61
One Hour Volumes													
6:00 AM - 7:00 AM	0	2	1	1	0	3	0	0	2	2	3	0	7
6:15 AM - 7:15 AM	0	1	1	1	1	3	0	0	1	2	4	0	7
6:30 AM - 7:30 AM	1	1	1	1	1	2	0	0	2	2	3	0	7
6:45 AM - 7:45 AM	1	1	0	1	1	2	0	0	2	1	3	0	6
7:00 AM - 8:00 AM	1	0	0	0	1	1	0	0	1	0	2	0	3
7:15 AM - 8:15 AM	1	0	0	1	1	1	0	0	1	1	2	0	4
7:30 AM - 8:30 AM	0	0	0	1	1	1	0	0	0	1	2	0	3
7:45 AM - 8:45 AM	0	0	0	1	1	0	0	0	0	1	1	0	2
8:00 AM - 9:00 AM	0	0	0	1	1	0	0	0	0	1	1	0	2
4:00 PM - 5:00 PM	2	2	1	0	2	1	0	0	4	1	3	0	8
4:15 PM - 5:15 PM	3	2	1	0	3	0	0	0	5	1	3	0	9
4:30 PM - 5:30 PM	2	3	0	0	4	0	0	0	5	0	4	0	9
4:45 PM - 5:45 PM	1	5	1	1	4	2	0	0	6	2	6	0	14
5:00 PM - 6:00 PM	1	4	1	1	4	4	0	0	5	2	8	0	15
5:15 PM - 6:15 PM	4	6	1	4	4	4	0	0	10	5	8	0	23
5:30 PM - 6:30 PM	6	10	1	5	4	4	0	0	16	6	8	0	30
5:45 PM - 6:45 PM	7	10	1	4	2	3	0	0	17	5	5	0	27
6:00 PM - 7:00 PM	8	10	1	4	2	1	0	0	18	5	3	0	26

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & University Blvd. Extenion
LOCATION: Fairfax County,VA

DATE: 11/16/2022
DAY: Wednesday
WEATHER: clear
COUNTED BY: Majda
INPUTED BY: agan

SOUTHBOUND ROAD: Driveway
NORTHBOUND ROAD: University Boulevard Extenion
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time Period	Southbound Driveway						Westbound Eaton Place						Northbound University Boulevard Extenion						Eastbound Eaton Place						North & South	East & West	Total
	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	0	0	0	0	0		0	16	0	0	16		0	0	0	0	0		2	21	4	0	27		0	43	43
6:15 AM - 6:30 AM	0	0	0	0	0		0	17	0	0	17		0	0	0	0	0		1	32	1	0	34		0	51	51
6:30 AM - 6:45 AM	0	0	0	0	0		0	25	0	0	25		0	0	1	0	1		3	36	6	0	45		1	70	71
6:45 AM - 7:00 AM	0	0	0	0	0		1	22	0	0	23		0	0	0	0	0		4	52	13	0	69		0	92	92
7:00 AM - 7:15 AM	0	0	0	0	0		0	26	0	0	26		0	0	4	0	4		1	40	12	0	53		4	79	83
7:15 AM - 7:30 AM	2	0	0	0	2		2	30	0	0	32		0	0	2	0	2		2	67	1	0	70		4	102	106
7:30 AM - 7:45 AM	0	0	0	0	0		2	62	1	0	65		1	0	2	0	3		7	80	10	0	97		3	162	165
7:45 AM - 8:00 AM	0	0	0	0	0		2	58	0	0	60		0	2	1	0	3		1	94	15	0	110		3	170	173
8:00 AM - 8:15 AM	0	0	0	0	0		0	66	0	0	66		2	1	3	0	6		1	73	19	0	93		6	159	165
8:15 AM - 8:30 AM	0	0	0	0	0		2	59	2	0	63		0	1	0	0	1		4	53	12	0	69		1	132	133
8:30 AM - 8:45 AM	0	0	0	0	0		1	60	0	0	61		1	1	4	0	6		2	76	13	0	91		6	152	158
8:45 AM - 9:00 AM	1	1	0	0	2		2	40	1	0	43		1	3	4	0	8		10	78	18	0	106		10	149	159
4:00 PM - 4:15 PM	13	1	1	0	15		1	127	0	0	128		1	0	7	0	8		7	75	0	0	82		23	210	233
4:15 PM - 4:30 PM	11	1	4	0	16		0	138	2	0	140		0	0	5	0	5		6	62	1	0	69		21	209	230
4:30 PM - 4:45 PM	11	0	1	0	12		0	136	3	0	139		3	0	1	0	4		4	68	0	0	72		16	211	227
4:45 PM - 5:00 PM	11	0	0	0	11		0	105	3	0	108		2	1	2	0	5		8	58	0	0	66		16	174	190
5:00 PM - 5:15 PM	11	0	1	0	12		0	137	2	0	139		0	0	1	0	1		7	67	1	0	75		13	214	227
5:15 PM - 5:30 PM	11	0	0	0	11		0	140	2	0	142		2	0	5	0	7		3	61	1	0	65		18	207	225
5:30 PM - 5:45 PM	5	0	0	0	5		0	130	1	0	131		1	1	5	0	7		8	55	0	0	63		12	194	206
5:45 PM - 6:00 PM	16	0	0	0	16		0	99	2	0	101		0	0	7	0	7		6	71	1	0	78		23	179	202
6:00 PM - 6:15 PM	5	2	0	0	7		0	111	4	0	115		1	1	6	0	8		7	67	0	0	74		15	189	204
6:15 PM - 6:30 PM	10	0	0	0	10		0	98	0	0	98		2	0	5	0	7		4	76	0	0	80		17	178	195
6:30 PM - 6:45 PM	4	1	0	0	5		0	101	0	0	101		0	1	3	0	4		1	55	0	0	56		9	157	166
6:45 PM - 7:00 PM	4	0	0	0	4		0	63	0	0	63		0	0	2	0	2		1	58	0	0	59		6	122	128
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	115	6	7	0	128		13	1866	23	0	1902		17	12	70	0	99		100	1475	128	0	1703		227	3605	3832
One Hour Volumes																											
6:00 AM - 7:00 AM	0	0	0	0	0		1	80	0	0	81	0.81	0	0	1	0	1	0.25	10	141	24	0	175	0.63	1	256	257
6:15 AM - 7:15 AM	0	0	0	0	0		1	90	0	0	91	0.88	0	0	5	0	5	0.31	9	160	32	0	201	0.73	5	292	297
6:30 AM - 7:30 AM	2	0	0	0	2	0.25	3	103	0	0	106	0.83	0	0	7	0	7	0.44	10	195	32	0	237	0.85	9	343	352
6:45 AM - 7:45 AM	2	0	0	0	2	0.25	5	140	1	0	146	0.56	1	0	8	0	9	0.56	14	239	36	0	289	0.74	11	435	446
7:00 AM - 8:00 AM	2	0	0	0	2	0.25	6	176	1	0	183	0.7	1	2	9	0	12	0.75	11	281	38	0	330	0.75	14	513	527
7:15 AM - 8:15 AM	2	0	0	0	2	0.25	6	216	1	0	223	0.84	3	3	8	0	14	0.58	11	314	45	0	370	0.84	16	593	609
7:30 AM - 8:30 AM	0	0	0	0	0		6	245	3	0	254	0.96	3	4	6	0	13	0.54	13	300	56	0	369	0.84	13	623	636
7:45 AM - 8:45 AM	0	0	0	0	0		5	243	2	0	250	0.95	3	5	8	0	16	0.67	8	296	59	0	363	0.83	16	613	629
8:00 AM - 9:00 AM	1	1	0	0	2	0.25	5	225	3	0	233	0.88	4	6	11	0	21	0.66	17	280	62	0	359	0.85	23	592	615
4:00 PM - 5:00 PM	46	2	6	0	54	0.84	1	506	8	0	515	0.92	6	1	15	0	22	0.69	25	263	1	0	289	0.88	76	804	880
4:15 PM - 5:15 PM	44	1	6	0	51	0.8	0	516	10	0	526	0.94	5	1	9	0	15	0.75	25	255	2	0	282	0.94	66	808	874
4:30 PM - 5:30 PM	44	0	2	0	46	0.96	0	518	10	0	528	0.93	7	1	9	0	17	0.61	22	254	2	0	278	0.93	63	806	869
4:45 PM - 5:45 PM	38	0	1	0	39	0.81	0	512	8	0	520	0.92	5	2	13	0	20	0.71	26	241	2	0	269	0.9	59	789	848
5:00 PM - 6:00 PM	43	0	1	0	44	0.69	0	506	7	0	513	0.9	3	1	18	0	22	0.79	24	254	3	0	281	0.9	66	794	860
5:15 PM - 6:15 PM	37	2	0	0	39	0.61	0	480	9	0	489	0.86	4	2	23	0	29	0.91	24	254	2	0	280	0.9	68	769	837
5:30 PM - 6:30 PM	36	2	0	0	38	0.59	0	438	7	0	445	0.85	4	2	23	0	29	0.91	25	269	1	0	295	0.92	67	740	807
5:45 PM - 6:45 PM	35	3	0	0	38	0.59	0	409	6	0	415	0.9	3	2	21	0	26	0.81	18	269	1	0	288	0.9	64	703	767
6:00 PM - 7:00 PM	23	3	0	0	26	0.65	0	373	4	0	377	0.82	3	2	16	0	21	0.66	13	256	0	0	269	0.84	47	646	693

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & West Site Driveway
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: West Site Driveway
NORTHBOUND ROAD: Office Driveway
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time	Southbound West Site Driveway						Westbound Eaton Place						Northbound Office Driveway						Eastbound Eaton Place						North & South	East & West	Total
Period	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	0	0	0	0	0		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	1	1
6:15 AM - 6:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		0	1	1
6:30 AM - 6:45 AM	0	0	1	0	1		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		1	1	2
6:45 AM - 7:00 AM	0	0	0	0	0		2	0	0	0	2		0	0	0	0	0		0	0	1	0	1		0	3	3
7:00 AM - 7:15 AM	0	0	0	0	0		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		0	1	1
7:15 AM - 7:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	2	0	2		0	2	2
7:30 AM - 7:45 AM	0	0	0	0	0		3	0	0	0	3		0	0	0	0	0		0	0	2	0	2		0	5	5
7:45 AM - 8:00 AM	0	0	0	0	0		4	0	0	0	4		0	0	0	0	0		0	0	4	0	4		0	8	8
8:00 AM - 8:15 AM	0	0	0	0	0		2	0	0	0	2		0	0	0	0	0		0	0	2	0	2		0	4	4
8:15 AM - 8:30 AM	0	0	0	0	0		5	0	0	0	5		0	0	0	0	0		0	0	4	0	4		0	9	9
8:30 AM - 8:45 AM	3	0	1	0	4		6	0	0	0	6		0	0	0	0	0		0	0	3	0	3		4	9	13
8:45 AM - 9:00 AM	1	0	0	0	1		9	0	0	0	9		0	0	0	0	0		0	0	4	0	4		1	13	14
4:00 PM - 4:15 PM	7	0	5	0	12		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		12	0	12
4:15 PM - 4:30 PM	8	0	1	0	9		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		9	2	11
4:30 PM - 4:45 PM	7	0	3	0	10		1	0	0	0	1		0	0	0	0	0		0	0	2	0	2		10	3	13
4:45 PM - 5:00 PM	8	0	3	0	11		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		11	0	11
5:00 PM - 5:15 PM	9	0	7	0	16		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		16	0	16
5:15 PM - 5:30 PM	5	0	4	0	9		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		9	1	10
5:30 PM - 5:45 PM	2	0	3	0	5		0	0	0	0	0		0	0	0	0	0		0	0	2	0	2		5	2	7
5:45 PM - 6:00 PM	1	0	1	0	2		0	0	0	0	0		0	0	0	0	0		0	0	3	0	3		2	3	5
6:00 PM - 6:15 PM	7	0	2	0	9		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		9	2	11
6:15 PM - 6:30 PM	5	0	1	0	6		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		6	1	7
6:30 PM - 6:45 PM	0	0	1	0	1		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		1	0	1
6:45 PM - 7:00 PM	2	0	0	0	2		0	0	0	0	0		0	0	0	0	0		0	0	2	0	2		2	2	4
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	65	0	33	0	98		37	0	0	0	37		0	0	0	0	0		0	0	36	0	36		98	73	171
One Hour Volumes																											
6:00 AM - 7:00 AM	0	0	1	0	1	0.25	3	0	0	0	3	0.38	0	0	0	0	0		0	0	3	0	3	0.75	1	6	7
6:15 AM - 7:15 AM	0	0	1	0	1	0.25	3	0	0	0	3	0.38	0	0	0	0	0		0	0	3	0	3	0.75	1	6	7
6:30 AM - 7:30 AM	0	0	1	0	1	0.25	3	0	0	0	3	0.38	0	0	0	0	0		0	0	4	0	4	0.5	1	7	8
6:45 AM - 7:45 AM	0	0	0	0	0		6	0	0	0	6	0.5	0	0	0	0	0		0	0	5	0	5	0.63	0	11	11
7:00 AM - 8:00 AM	0	0	0	0	0		8	0	0	0	8	0.5	0	0	0	0	0		0	0	8	0	8	0.5	0	16	16
7:15 AM - 8:15 AM	0	0	0	0	0		9	0	0	0	9	0.56	0	0	0	0	0		0	0	10	0	10	0.63	0	19	19
7:30 AM - 8:30 AM	0	0	0	0	0		14	0	0	0	14	0.7	0	0	0	0	0		0	0	12	0	12	0.75	0	26	26
7:45 AM - 8:45 AM	3	0	1	0	4	0.25	17	0	0	0	17	0.71	0	0	0	0	0		0	0	13	0	13	0.81	4	30	34
8:00 AM - 9:00 AM	4	0	1	0	5	0.31	22	0	0	0	22	0.61	0	0	0	0	0		0	0	13	0	13	0.81	5	35	40
4:00 PM - 5:00 PM	30	0	12	0	42	0.88	2	0	0	0	2	0.5	0	0	0	0	0		0	0	3	0	3	0.38	42	5	47
4:15 PM - 5:15 PM	32	0	14	0	46	0.72	2	0	0	0	2	0.5	0	0	0	0	0		0	0	3	0	3	0.38	46	5	51
4:30 PM - 5:30 PM	29	0	17	0	46	0.72	1	0	0	0	1	0.25	0	0	0	0	0		0	0	3	0	3	0.38	46	4	50
4:45 PM - 5:45 PM	24	0	17	0	41	0.64	0	0	0	0	0		0	0	0	0	0		0	0	3	0	3	0.38	41	3	44
5:00 PM - 6:00 PM	17	0	15	0	32	0.5	0	0	0	0	0		0	0	0	0	0		0	0	6	0	6	0.5	32	6	38
5:15 PM - 6:15 PM	15	0	10	0	25	0.69	1	0	0	0	1	0.25	0	0	0	0	0		0	0	7	0	7	0.58	25	8	33
5:30 PM - 6:30 PM	15	0	7	0	22	0.61	2	0	0	0	2	0.5	0	0	0	0	0		0	0	6	0	6	0.5	22	8	30
5:45 PM - 6:45 PM	13	0	5	0	18	0.5	2	0	0	0	2	0.5	0	0	0	0	0		0	0	4	0	4	0.33	18	6	24
6:00 PM - 7:00 PM	14	0	4	0	18	0.5	2	0	0	0	2	0.5	0	0	0	0	0		0	0	3	0	3	0.38	18	5	23

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & West Site Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
)UTHBOUND ROAD: West Site Driveway
)RTHBOUND ROAD: Office Driveway
VESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

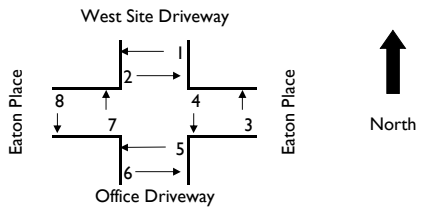
Time Period	Southbound West Site Driveway				Westbound Eaton Place				Northbound Office Driveway				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0		1		1				0				0	0	1	1
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0		1		1	0	1	1
7:45 AM - 8:00 AM				0				0				0		1		1	0	1	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0		1		1				0				0	0	1	1
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM	1			1				0				0				0	1	0	1
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	1	0	0	1	0	2	0	2	0	0	0	0	0	2	0	2	1	4	5
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:15 AM - 7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:30 AM - 7:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:45 AM - 7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:15 PM - 5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
4:30 PM - 5:30 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
4:45 PM - 5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM - 6:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM - 6:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Eaton Pl. & West Site Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM		1							1	0	0	0	1
6:15 AM - 6:30 AM						1			0	0	1	0	1
6:30 AM - 6:45 AM						1			0	0	1	0	1
6:45 AM - 7:00 AM	2								2	0	0	0	2
7:00 AM - 7:15 AM					1				0	0	1	0	1
7:15 AM - 7:30 AM	1								1	0	0	0	1
7:30 AM - 7:45 AM						1			0	0	1	0	1
7:45 AM - 8:00 AM									0	0	0	0	0
8:00 AM - 8:15 AM	1								1	0	0	0	1
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM									0	0	0	0	0
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM									0	0	0	0	0
4:15 PM - 4:30 PM						1			0	0	1	0	1
4:30 PM - 4:45 PM					2				0	0	2	0	2
4:45 PM - 5:00 PM		1				1		1	1	0	1	1	3
5:00 PM - 5:15 PM					1		1		0	0	1	1	2
5:15 PM - 5:30 PM		1							1	0	0	0	1
5:30 PM - 5:45 PM	1	3				2			4	0	2	0	6
5:45 PM - 6:00 PM		1				2			1	0	2	0	3
6:00 PM - 6:15 PM	1				2		2		1	0	2	2	5
6:15 PM - 6:30 PM	3	5							8	0	0	0	8
6:30 PM - 6:45 PM		3			1		1		3	0	1	1	5
6:45 PM - 7:00 PM	1	1							2	0	0	0	2
Total	10	16	0	0	7	9	4	1	26	0	16	5	47
One Hour Volumes													
6:00 AM - 7:00 AM	2	1	0	0	0	2	0	0	3	0	2	0	5
6:15 AM - 7:15 AM	2	0	0	0	1	2	0	0	2	0	3	0	5
6:30 AM - 7:30 AM	3	0	0	0	1	1	0	0	3	0	2	0	5
6:45 AM - 7:45 AM	3	0	0	0	1	1	0	0	3	0	2	0	5
7:00 AM - 8:00 AM	1	0	0	0	1	1	0	0	1	0	2	0	3
7:15 AM - 8:15 AM	2	0	0	0	0	1	0	0	2	0	1	0	3
7:30 AM - 8:30 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
7:45 AM - 8:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM - 9:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
4:00 PM - 5:00 PM	0	1	0	0	2	2	0	1	1	0	4	1	6
4:15 PM - 5:15 PM	0	1	0	0	3	2	1	1	1	0	5	2	8
4:30 PM - 5:30 PM	0	2	0	0	3	1	1	1	2	0	4	2	8
4:45 PM - 5:45 PM	1	5	0	0	1	3	1	1	6	0	4	2	12
5:00 PM - 6:00 PM	1	5	0	0	1	4	1	0	6	0	5	1	12
5:15 PM - 6:15 PM	2	5	0	0	2	4	2	0	7	0	6	2	15
5:30 PM - 6:30 PM	5	9	0	0	2	4	2	0	14	0	6	2	22
5:45 PM - 6:45 PM	4	9	0	0	3	2	3	0	13	0	5	3	21
6:00 PM - 7:00 PM	5	9	0	0	3	0	3	0	14	0	3	3	20

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & Middle Driveway 1
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: Middle Site Driveway 1
NORTHBOUND ROAD: Office Driveway
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time	Southbound Middle Site Driveway 1						Westbound Eaton Place						Northbound Office Driveway						Eastbound Eaton Place						North & South	East & West	Total
Period	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	2	0	1	0	3		0	10	0	0	10		0	0	0	0	0		0	24	0	0	24		3	34	37
6:15 AM - 6:30 AM	0	0	0	0	0		0	16	0	0	16		0	0	0	0	0		0	37	0	0	37		0	53	53
6:30 AM - 6:45 AM	0	0	1	0	1		0	26	0	0	26		0	0	0	0	0		0	42	1	0	43		1	69	70
6:45 AM - 7:00 AM	0	0	0	0	0		0	29	0	0	29		0	0	0	0	0		0	50	0	0	50		0	79	79
7:00 AM - 7:15 AM	0	0	0	0	0		1	30	0	0	31		0	0	0	0	0		0	56	0	0	56		0	87	87
7:15 AM - 7:30 AM	0	0	0	0	0		1	40	0	0	41		0	0	0	0	0		0	47	1	0	48		0	89	89
7:30 AM - 7:45 AM	0	0	1	0	1		1	53	0	0	54		0	0	0	0	0		0	84	2	0	86		1	140	141
7:45 AM - 8:00 AM	0	0	0	0	0		1	54	0	0	55		0	0	0	0	0		0	135	2	0	137		0	192	192
8:00 AM - 8:15 AM	2	0	1	0	3		2	74	0	0	76		0	0	0	0	0		0	97	6	0	103		3	179	182
8:15 AM - 8:30 AM	0	0	1	0	1		2	59	0	0	61		0	0	0	0	0		0	57	2	0	59		1	120	121
8:30 AM - 8:45 AM	0	0	0	0	0		2	57	0	0	59		0	0	0	0	0		0	63	4	0	67		0	126	126
8:45 AM - 9:00 AM	3	0	3	0	6		0	46	0	0	46		0	0	0	0	0		0	62	7	0	69		6	115	121
4:00 PM - 4:15 PM	4	0	1	0	5		0	82	0	0	82		0	0	0	0	0		0	117	0	0	117		5	199	204
4:15 PM - 4:30 PM	4	0	2	0	6		0	85	0	0	85		0	0	0	0	0		0	84	1	0	85		6	170	176
4:30 PM - 4:45 PM	1	0	3	0	4		0	85	0	0	85		0	0	0	0	0		0	87	0	0	87		4	172	176
4:45 PM - 5:00 PM	0	0	4	0	4		0	94	0	0	94		0	0	0	0	0		0	70	1	0	71		4	165	169
5:00 PM - 5:15 PM	2	0	1	0	3		0	112	0	0	112		0	0	0	0	0		0	86	1	0	87		3	199	202
5:15 PM - 5:30 PM	1	0	2	0	3		1	114	0	0	115		0	0	0	0	0		0	101	0	0	101		3	216	219
5:30 PM - 5:45 PM	2	0	2	0	4		1	99	0	0	100		0	0	0	0	0		0	86	0	0	86		4	186	190
5:45 PM - 6:00 PM	1	0	1	0	2		0	96	0	0	96		0	0	0	0	0		0	79	0	0	79		2	175	177
6:00 PM - 6:15 PM	1	0	1	0	2		0	83	0	0	83		0	0	0	0	0		0	67	0	0	67		2	150	152
6:15 PM - 6:30 PM	0	0	1	0	1		0	68	0	0	68		0	0	0	0	0		0	52	0	0	52		1	120	121
6:30 PM - 6:45 PM	0	0	0	0	0		0	66	0	0	66		0	0	0	0	0		0	66	0	0	66		0	132	132
6:45 PM - 7:00 PM	1	0	0	0	1		0	66	0	0	66		0	0	0	0	0		0	70	0	0	70		1	136	137
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	24	0	26	0	50		12	1544	0	0	1556		0	0	0	0	0		0	1719	28	0	1747		50	3303	3353
One Hour Volumes																											
6:00 AM - 7:00 AM	2	0	2	0	4	0.33	0	81	0	0	81	0.7	0	0	0	0	0		0	153	1	0	154	0.77	4	235	239
6:15 AM - 7:15 AM	0	0	1	0	1	0.25	1	101	0	0	102	0.82	0	0	0	0	0		0	185	1	0	186	0.83	1	288	289
6:30 AM - 7:30 AM	0	0	1	0	1	0.25	2	125	0	0	127	0.77	0	0	0	0	0		0	195	2	0	197	0.88	1	324	325
6:45 AM - 7:45 AM	0	0	1	0	1	0.25	3	152	0	0	155	0.72	0	0	0	0	0		0	237	3	0	240	0.7	1	395	396
7:00 AM - 8:00 AM	0	0	1	0	1	0.25	4	177	0	0	181	0.82	0	0	0	0	0		0	322	5	0	327	0.6	1	508	509
7:15 AM - 8:15 AM	2	0	2	0	4	0.33	5	221	0	0	226	0.74	0	0	0	0	0		0	363	11	0	374	0.68	4	600	604
7:30 AM - 8:30 AM	2	0	3	0	5	0.42	6	240	0	0	246	0.81	0	0	0	0	0		0	373	12	0	385	0.7	5	631	636
7:45 AM - 8:45 AM	2	0	2	0	4	0.33	7	244	0	0	251	0.83	0	0	0	0	0		0	352	14	0	366	0.67	4	617	621
8:00 AM - 9:00 AM	5	0	5	0	10	0.42	6	236	0	0	242	0.8	0	0	0	0	0		0	279	19	0	298	0.72	10	540	550
4:00 PM - 5:00 PM	9	0	10	0	19	0.79	0	346	0	0	346	0.92	0	0	0	0	0		0	358	2	0	360	0.77	19	706	725
4:15 PM - 5:15 PM	7	0	10	0	17	0.71	0	376	0	0	376	0.84	0	0	0	0	0		0	327	3	0	330	0.95	17	706	723
4:30 PM - 5:30 PM	4	0	10	0	14	0.88	1	405	0	0	406	0.88	0	0	0	0	0		0	344	2	0	346	0.86	14	752	766
4:45 PM - 5:45 PM	5	0	9	0	14	0.88	2	419	0	0	421	0.92	0	0	0	0	0		0	343	2	0	345	0.85	14	766	780
5:00 PM - 6:00 PM	6	0	6	0	12	0.75	2	421	0	0	423	0.92	0	0	0	0	0		0	352	1	0	353	0.87	12	776	788
5:15 PM - 6:15 PM	5	0	6	0	11	0.69	2	392	0	0	394	0.86	0	0	0	0	0		0	333	0	0	333	0.82	11	727	738
5:30 PM - 6:30 PM	4	0	5	0	9	0.56	1	346	0	0	347	0.87	0	0	0	0	0		0	284	0	0	284	0.83	9	631	640
5:45 PM - 6:45 PM	2	0	3	0	5	0.63	0	313	0	0	313	0.82	0	0	0	0	0		0	264	0	0	264	0.84	5	577	582
6:00 PM - 7:00 PM	2	0	2	0	4	0.5	0	283	0	0	283	0.85	0	0	0	0	0		0	255	0	0	255	0.91	4	538	542

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & Middle Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
)UTHBOUND ROAD: Middle Site Driveway I
)RTHBOUND ROAD: Office Driveway
VESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

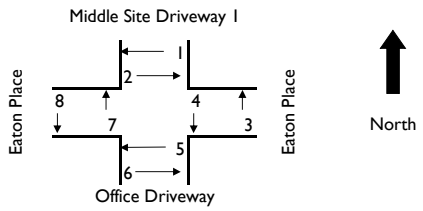
Time Period	Southbound Middle Site Driveway I				Westbound Eaton Place				Northbound Office Driveway				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0		I		I	0	I	I
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0				0				0				0	0	0	0
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0				0	0	0	0
7:45 AM - 8:00 AM				0				0				0		I		I	0	I	I
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0		I		I	0	I	I
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0		I		I				0				0	0	I	I
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0		I		I				0		I		I	0	2	2
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	0	6	6
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	I	0	I	0	I	I
5:30 PM - 6:30 PM	0	0	0	0	0	I	0	I	0	0	0	0	0	0	0	0	0	I	I
5:45 PM - 6:45 PM	0	0	0	0	0	I	0	I	0	0	0	0	0	0	0	0	0	I	I
6:00 PM - 7:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	I	0	I	0	3	3

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Eaton Pl. & Middle Driveway 1
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM		1							1	0	0	0	1
6:15 AM - 6:30 AM			1			1			0	1	1	0	2
6:30 AM - 6:45 AM		1							1	0	0	0	1
6:45 AM - 7:00 AM	2								2	0	0	0	2
7:00 AM - 7:15 AM					1				0	0	1	0	1
7:15 AM - 7:30 AM	1								1	0	0	0	1
7:30 AM - 7:45 AM						1			0	0	1	0	1
7:45 AM - 8:00 AM									0	0	0	0	0
8:00 AM - 8:15 AM	1								1	0	0	0	1
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM									0	0	0	0	0
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM									0	0	0	0	0
4:15 PM - 4:30 PM						1			0	0	1	0	1
4:30 PM - 4:45 PM									0	0	0	0	0
4:45 PM - 5:00 PM		1							1	0	0	0	1
5:00 PM - 5:15 PM									0	0	0	0	0
5:15 PM - 5:30 PM		2		1					2	1	0	0	3
5:30 PM - 5:45 PM		3							3	0	0	0	3
5:45 PM - 6:00 PM	1	2							3	0	0	0	3
6:00 PM - 6:15 PM									0	0	0	0	0
6:15 PM - 6:30 PM		5							5	0	0	0	5
6:30 PM - 6:45 PM		3							3	0	0	0	3
6:45 PM - 7:00 PM	1								1	0	0	0	1
Total	6	18	1	1	1	3	0	0	24	2	4	0	30
One Hour Volumes													
6:00 AM - 7:00 AM	2	2	1	0	0	1	0	0	4	1	1	0	6
6:15 AM - 7:15 AM	2	1	1	0	1	1	0	0	3	1	2	0	6
6:30 AM - 7:30 AM	3	1	0	0	1	0	0	0	4	0	1	0	5
6:45 AM - 7:45 AM	3	0	0	0	1	1	0	0	3	0	2	0	5
7:00 AM - 8:00 AM	1	0	0	0	1	1	0	0	1	0	2	0	3
7:15 AM - 8:15 AM	2	0	0	0	0	1	0	0	2	0	1	0	3
7:30 AM - 8:30 AM	1	0	0	0	0	1	0	0	1	0	1	0	2
7:45 AM - 8:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM - 9:00 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
4:00 PM - 5:00 PM	0	1	0	0	0	1	0	0	1	0	1	0	2
4:15 PM - 5:15 PM	0	1	0	0	0	1	0	0	1	0	1	0	2
4:30 PM - 5:30 PM	0	3	0	1	0	0	0	0	3	1	0	0	4
4:45 PM - 5:45 PM	0	6	0	1	0	0	0	0	6	1	0	0	7
5:00 PM - 6:00 PM	1	7	0	1	0	0	0	0	8	1	0	0	9
5:15 PM - 6:15 PM	1	7	0	1	0	0	0	0	8	1	0	0	9
5:30 PM - 6:30 PM	1	10	0	0	0	0	0	0	11	0	0	0	11
5:45 PM - 6:45 PM	1	10	0	0	0	0	0	0	11	0	0	0	11
6:00 PM - 7:00 PM	1	8	0	0	0	0	0	0	9	0	0	0	9

Wells + Associates,Inc

Tysons, Virginia

Turning Movement Count - Total Vehicles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & East Site Driveway
LOCATION: Fairfax County,VA

DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan

SOUTHBOUND ROAD: East Site Driveway
NORTHBOUND ROAD: 0
WESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

Time	Southbound East Site Driveway						Westbound Eaton Place						Northbound 0						Eastbound Eaton Place						North & South	East & West	Total
Period	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF	Right	Thru	Left	U-Turn	Total	PHF			
15 Minute Volumes																											
6:00 AM - 6:15 AM	1	0	0	0	1		2	0	0	0	2		0	0	0	0	0		0	0	2	0	2		1	4	5
6:15 AM - 6:30 AM	0	0	0	0	0		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		0	2	2
6:30 AM - 6:45 AM	0	0	2	0	2		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		2	2	4
6:45 AM - 7:00 AM	0	0	1	0	1		2	0	0	0	2		0	0	0	0	0		0	0	6	0	6		1	8	9
7:00 AM - 7:15 AM	1	0	1	0	2		4	0	0	0	4		0	0	0	0	0		0	0	2	0	2		2	6	8
7:15 AM - 7:30 AM	0	0	1	0	1		2	0	0	0	2		0	0	0	0	0		0	0	2	0	2		1	4	5
7:30 AM - 7:45 AM	0	0	0	0	0		4	0	0	0	4		0	0	0	0	0		0	0	7	0	7		0	11	11
7:45 AM - 8:00 AM	0	0	1	0	1		8	0	0	0	8		0	0	0	0	0		0	0	3	0	3		1	11	12
8:00 AM - 8:15 AM	1	0	0	0	1		7	0	0	0	7		0	0	0	0	0		0	0	5	0	5		1	12	13
8:15 AM - 8:30 AM	0	0	0	0	0		14	0	0	0	14		0	0	0	0	0		0	0	5	0	5		0	19	19
8:30 AM - 8:45 AM	0	0	0	0	0		7	0	0	0	7		0	0	0	0	0		0	0	6	0	6		0	13	13
8:45 AM - 9:00 AM	1	0	1	0	2		13	0	0	0	13		0	0	0	0	0		0	0	1	0	1		2	14	16
4:00 PM - 4:15 PM	7	0	6	0	13		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		13	0	13
4:15 PM - 4:30 PM	3	0	6	0	9		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		9	1	10
4:30 PM - 4:45 PM	3	0	5	0	8		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		8	1	9
4:45 PM - 5:00 PM	4	0	4	0	8		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		8	1	9
5:00 PM - 5:15 PM	17	0	7	0	24		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		24	1	25
5:15 PM - 5:30 PM	6	0	10	0	16		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		16	1	17
5:30 PM - 5:45 PM	5	0	5	0	10		1	0	0	0	1		0	0	0	0	0		0	0	0	0	0		10	1	11
5:45 PM - 6:00 PM	5	0	6	0	11		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		11	0	11
6:00 PM - 6:15 PM	8	0	4	0	12		3	0	0	0	3		0	0	0	0	0		0	0	0	0	0		12	3	15
6:15 PM - 6:30 PM	5	0	4	0	9		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		9	0	9
6:30 PM - 6:45 PM	1	0	2	0	3		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		3	0	3
6:45 PM - 7:00 PM	0	0	3	0	3		1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		3	2	5
4:00 AM - 4:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	68	0	69	0	137		75	0	0	0	75		0	0	0	0	0		0	0	42	0	42		137	117	254
One Hour Volumes																											
6:00 AM - 7:00 AM	1	0	3	0	4	0.5	6	0	0	0	6	0.75	0	0	0	0	0		0	0	10	0	10	0.42	4	16	20
6:15 AM - 7:15 AM	1	0	4	0	5	0.63	8	0	0	0	8	0.5	0	0	0	0	0		0	0	10	0	10	0.42	5	18	23
6:30 AM - 7:30 AM	1	0	5	0	6	0.75	9	0	0	0	9	0.56	0	0	0	0	0		0	0	11	0	11	0.46	6	20	26
6:45 AM - 7:45 AM	1	0	3	0	4	0.5	12	0	0	0	12	0.75	0	0	0	0	0		0	0	17	0	17	0.61	4	29	33
7:00 AM - 8:00 AM	1	0	3	0	4	0.5	18	0	0	0	18	0.56	0	0	0	0	0		0	0	14	0	14	0.5	4	32	36
7:15 AM - 8:15 AM	1	0	2	0	3	0.75	21	0	0	0	21	0.66	0	0	0	0	0		0	0	17	0	17	0.61	3	38	41
7:30 AM - 8:30 AM	1	0	1	0	2	0.5	33	0	0	0	33	0.59	0	0	0	0	0		0	0	20	0	20	0.71	2	53	55
7:45 AM - 8:45 AM	1	0	1	0	2	0.5	36	0	0	0	36	0.64	0	0	0	0	0		0	0	19	0	19	0.79	2	55	57
8:00 AM - 9:00 AM	2	0	1	0	3	0.38	41	0	0	0	41	0.73	0	0	0	0	0		0	0	17	0	17	0.71	3	58	61
4:00 PM - 5:00 PM	17	0	21	0	38	0.73	3	0	0	0	3	0.75	0	0	0	0	0		0	0	0	0	0		38	3	41
4:15 PM - 5:15 PM	27	0	22	0	49	0.51	4	0	0	0	4	1	0	0	0	0	0		0	0	0	0	0		49	4	53
4:30 PM - 5:30 PM	30	0	26	0	56	0.58	4	0	0	0	4	1	0	0	0	0	0		0	0	0	0	0		56	4	60
4:45 PM - 5:45 PM	32	0	26	0	58	0.6	4	0	0	0	4	1	0	0	0	0	0		0	0	0	0	0		58	4	62
5:00 PM - 6:00 PM	33	0	28	0	61	0.64	3	0	0	0	3	0.75	0	0	0	0	0		0	0	0	0	0		61	3	64
5:15 PM - 6:15 PM	24	0	25	0	49	0.77	5	0	0	0	5	0.42	0	0	0	0	0		0	0	0	0	0		49	5	54
5:30 PM - 6:30 PM	23	0	19	0	42	0.88	4	0	0	0	4	0.33	0	0	0	0	0		0	0	0	0	0		42	4	46
5:45 PM - 6:45 PM	19	0	16	0	35	0.73	3	0	0	0	3	0.25	0	0	0	0	0		0	0	0	0	0		35	3	38
6:00 PM - 7:00 PM	14	0	13	0	27	0.56	4	0	0	0	4	0.33	0	0	0	0	0		0	0	1	0	1	0.25	27	5	32

Wells + Associates, Inc.

Tysons, Virginia

Turning Movement Count - Bicycles

PROJECT: Willowwood Plaza
W+A JOB NO: 8738
INTERSECTION: Eaton Pl. & East Site Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan
)UTHBOUND ROAD: East Site Driveway
)RTHBOUND ROAD: 0
VESTBOUND ROAD: Eaton Place
EASTBOUND ROAD: Eaton Place

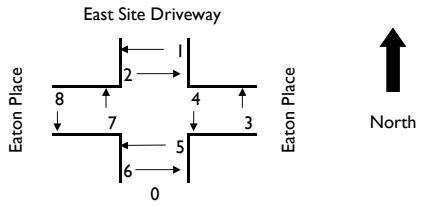
Time Period	Southbound East Site Driveway				Westbound Eaton Place				Northbound 0				Eastbound Eaton Place				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0		1		1	0	1	1
6:15 AM - 6:30 AM				0				0				0				0	0	0	0
6:30 AM - 6:45 AM				0				0				0		1		1	0	1	1
6:45 AM - 7:00 AM				0				0				0				0	0	0	0
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM				0				0				0				0	0	0	0
7:30 AM - 7:45 AM				0				0				0				0	0	0	0
7:45 AM - 8:00 AM				0				0				0		1		1	0	1	1
8:00 AM - 8:15 AM				0				0				0				0	0	0	0
8:15 AM - 8:30 AM				0				0				0				0	0	0	0
8:30 AM - 8:45 AM				0				0				0				0	0	0	0
8:45 AM - 9:00 AM				0				0				0				0	0	0	0
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM				0				0				0				0	0	0	0
4:30 PM - 4:45 PM				0				0				0				0	0	0	0
4:45 PM - 5:00 PM				0				0				0				0	0	0	0
5:00 PM - 5:15 PM				0				0				0				0	0	0	0
5:15 PM - 5:30 PM				0				0				0				0	0	0	0
5:30 PM - 5:45 PM				0				0				0				0	0	0	0
5:45 PM - 6:00 PM				0				0				0				0	0	0	0
6:00 PM - 6:15 PM				0				0				0				0	0	0	0
6:15 PM - 6:30 PM				0				0				0				0	0	0	0
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0				0				0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	3
One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	2
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
6:30 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
6:45 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:30 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Wells + Associates, Inc.

Tysons, Virginia

Pedestrian Volume Survey

PROJECT: Willowwood Plaza
W + A JOB NO: 8738
INTERSECTION: Eaton Pl. & East Site Driveway
LOCATION: Fairfax County,VA
DATE: 5/3/2022
DAY: Tuesday
WEATHER: clear
COUNTED BY: Agan
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
15 Minute Volumes													
6:00 AM - 6:15 AM									0	0	0	0	0
6:15 AM - 6:30 AM		1							1	0	0	0	1
6:30 AM - 6:45 AM	2								2	0	0	0	2
6:45 AM - 7:00 AM	1								1	0	0	0	1
7:00 AM - 7:15 AM									0	0	0	0	0
7:15 AM - 7:30 AM	1	1							2	0	0	0	2
7:30 AM - 7:45 AM		1						1	1	0	0	1	2
7:45 AM - 8:00 AM	1								1	0	0	0	1
8:00 AM - 8:15 AM									0	0	0	0	0
8:15 AM - 8:30 AM									0	0	0	0	0
8:30 AM - 8:45 AM									0	0	0	0	0
8:45 AM - 9:00 AM									0	0	0	0	0
4:00 PM - 4:15 PM									0	0	0	0	0
4:15 PM - 4:30 PM	1								1	0	0	0	1
4:30 PM - 4:45 PM									0	0	0	0	0
4:45 PM - 5:00 PM									0	0	0	0	0
5:00 PM - 5:15 PM	1							1	1	0	0	1	2
5:15 PM - 5:30 PM									0	0	0	0	0
5:30 PM - 5:45 PM		1							1	0	0	0	1
5:45 PM - 6:00 PM	1								1	0	0	0	1
6:00 PM - 6:15 PM									0	0	0	0	0
6:15 PM - 6:30 PM		5							5	0	0	0	5
6:30 PM - 6:45 PM									0	0	0	0	0
6:45 PM - 7:00 PM	1	3							4	0	0	0	4
Total	9	12	0	0	0	0	0	2	21	0	0	2	23
One Hour Volumes													
6:00 AM - 7:00 AM	3	1	0	0	0	0	0	0	4	0	0	0	4
6:15 AM - 7:15 AM	3	1	0	0	0	0	0	0	4	0	0	0	4
6:30 AM - 7:30 AM	4	1	0	0	0	0	0	0	5	0	0	0	5
6:45 AM - 7:45 AM	2	2	0	0	0	0	0	1	4	0	0	1	5
7:00 AM - 8:00 AM	2	2	0	0	0	0	0	1	4	0	0	1	5
7:15 AM - 8:15 AM	2	2	0	0	0	0	0	1	4	0	0	1	5
7:30 AM - 8:30 AM	1	1	0	0	0	0	0	1	2	0	0	1	3
7:45 AM - 8:45 AM	1	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	1	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM - 5:15 PM	2	0	0	0	0	0	0	1	2	0	0	1	3
4:30 PM - 5:30 PM	1	0	0	0	0	0	0	1	1	0	0	1	2
4:45 PM - 5:45 PM	1	1	0	0	0	0	0	1	2	0	0	1	3
5:00 PM - 6:00 PM	2	1	0	0	0	0	0	1	3	0	0	1	4
5:15 PM - 6:15 PM	1	1	0	0	0	0	0	0	2	0	0	0	2
5:30 PM - 6:30 PM	1	6	0	0	0	0	0	0	7	0	0	0	7
5:45 PM - 6:45 PM	1	5	0	0	0	0	0	0	6	0	0	0	6
6:00 PM - 7:00 PM	1	8	0	0	0	0	0	0	9	0	0	0	9

O:\PROJECTS\8501-9000\8738 WILLOWWOOD PLAZA\GRAPHICS\23.0414 8738 GRAPHICS.DWG

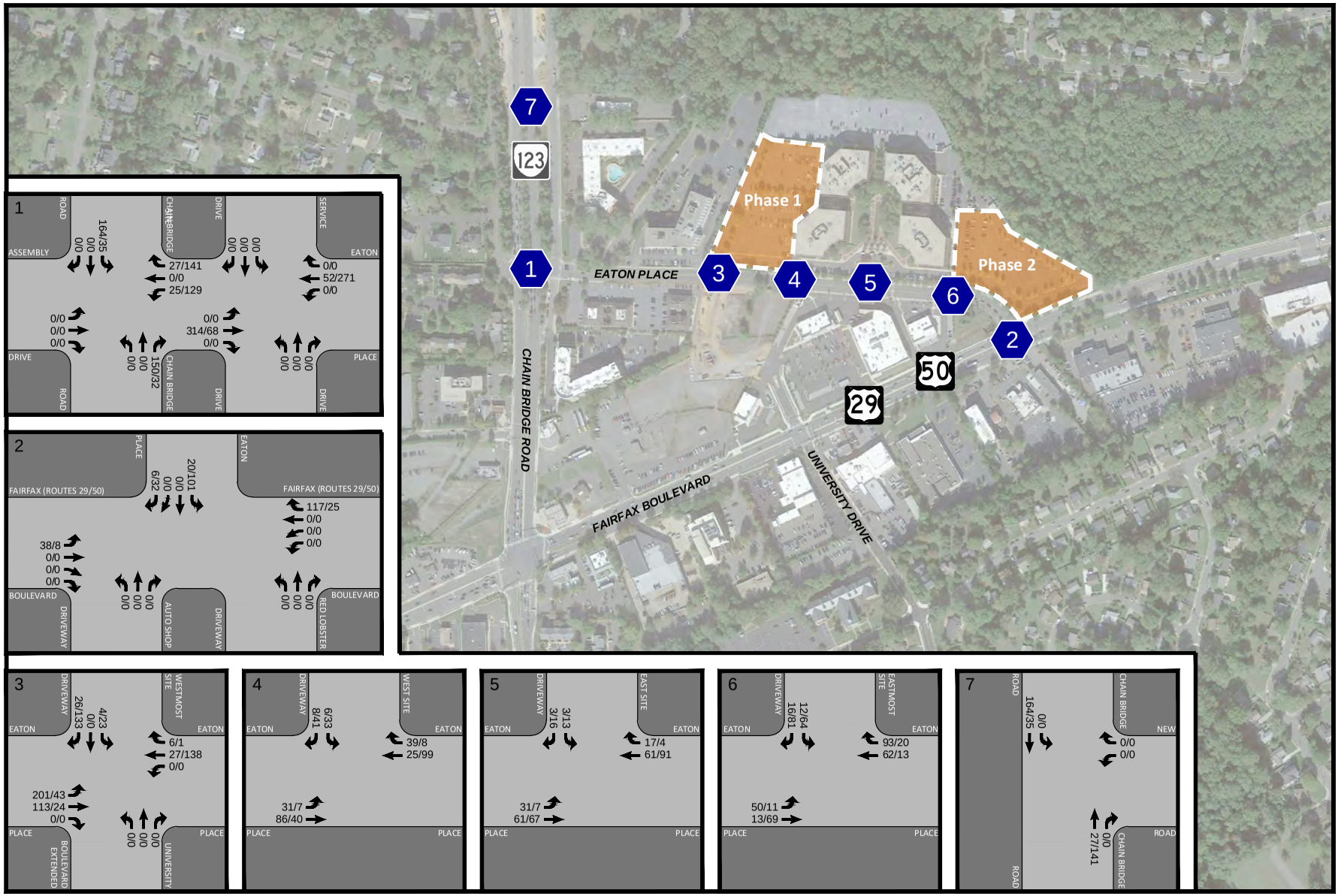


Figure A-1

Traffic Adjustments for Existing Office

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

APPENDIX C

Existing Capacity Analysis Worksheets

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	241	219	7	1141	540	970
v/c Ratio	0.64	0.41	0.33	0.09	0.95	1.48	0.44
Control Delay	88.9	5.7	0.9	89.0	86.7	269.7	38.5
Queue Delay	0.0	2.4	2.6	0.0	0.0	0.0	0.0
Total Delay	88.9	8.1	3.5	89.0	86.7	269.7	38.5
Queue Length 50th (ft)	180	17	1	9	520	~875	298
Queue Length 95th (ft)	269	m28	m0	28	#610	#1123	390
Internal Link Dist (ft)	420	47			982		920
Turn Bay Length (ft)				190		1000	
Base Capacity (vph)	239	583	666	188	1200	366	2219
Starvation Cap Reductn	0	226	331	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	0.64	0.68	0.65	0.04	0.95	1.48	0.44

Intersection Summary

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

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	71	26	102	62	268	7	869	204	508	890	22
Future Volume (vph)	47	71	26	102	62	268	7	869	204	508	890	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.96	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784			1653	1504	1770	4940		1770	5067	
Flt Permitted		0.98			0.98	1.00	0.95	1.00		0.08	1.00	
Satd. Flow (perm)		1784			1653	1504	1770	4940		146	5067	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	50	76	28	109	66	285	7	924	217	540	947	23
RTOR Reduction (vph)	0	4	0	0	7	143	0	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	234	76	7	1141	0	540	970	0
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.1			64.0	64.0	1.6	44.2		84.2	75.8	
Effective Green, g (s)		25.1			66.0	66.0	3.6	46.2		86.2	77.8	
Actuated g/C Ratio		0.13			0.35	0.35	0.02	0.24		0.45	0.41	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		235			574	522	33	1201		367	2074	
v/s Ratio Prot		c0.08			c0.14	0.05	0.00	0.23		c0.27	0.19	
v/s Ratio Perm										c0.39		
v/c Ratio		0.64			0.41	0.15	0.21	0.95		1.47	0.47	
Uniform Delay, d1		78.1			47.1	42.6	91.8	70.8		64.0	41.0	
Progression Factor		1.00			0.09	0.01	1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.8			0.8	0.2	3.2	16.5		226.5	0.8	
Delay (s)		83.9			5.2	0.7	95.0	87.2		290.5	41.7	
Level of Service		F			A	A	F	F		F	D	
Approach Delay (s)		83.9			3.0			87.3			130.7	
Approach LOS		F			A			F			F	

Intersection Summary			
HCM 2000 Control Delay	95.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	102	1790	11	1073	370	4	194	189	6
v/c Ratio	0.30	0.49	0.06	0.46	0.34	0.05	0.70	0.69	0.08
Control Delay	11.5	16.2	12.1	20.5	8.9	88.0	111.3	110.7	88.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	16.2	12.1	20.5	8.9	88.0	111.3	110.7	88.8
Queue Length 50th (ft)	27	256	3	295	64	5	242	236	7
Queue Length 95th (ft)	85	635	16	593	201	18	m303	m292	26
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	402	3630	193	2311	1092	89	404	400	173
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.49	0.06	0.46	0.34	0.04	0.48	0.47	0.03

Intersection Summary

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

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	88	1535	2	3	8	2	923	318	2	0	2	309
Future Volume (vph)	88	1535	2	3	8	2	923	318	2	0	2	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	0.99		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5082				1770	3539	1560		1695		1681
Flt Permitted	0.19	1.00				0.09	1.00	1.00		0.98		0.95
Satd. Flow (perm)	350	5082				168	3539	1560		1695		1681
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	102	1785	2	3	9	2	1073	370	2	0	2	359
RTOR Reduction (vph)	0	0	0	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	102	1790	0	0	0	11	1073	284	0	4	0	194
Confl. Peds. (#/hr)	1		1	1	1	1		1				
Confl. Bikes (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	127.4	118.0				113.8	111.2	111.2		1.5		29.4
Effective Green, g (s)	130.6	120.0				117.8	113.2	113.2		3.5		31.4
Actuated g/C Ratio	0.69	0.63				0.62	0.60	0.60		0.02		0.17
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	325	3209				142	2108	929		31		277
v/s Ratio Prot	c0.02	c0.35				0.00	0.30			c0.00		c0.12
v/s Ratio Perm	0.20					0.05		0.18				
v/c Ratio	0.31	0.56				0.08	0.51	0.31		0.13		0.70
Uniform Delay, d1	13.9	19.9				15.9	22.3	19.0		91.8		74.9
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		1.33
Incremental Delay, d2	0.6	0.7				0.2	0.9	0.9		1.9		9.0
Delay (s)	14.5	20.6				16.1	23.2	19.8		93.6		108.8
Level of Service	B	C				B	C	B		F		F
Approach Delay (s)		20.3					22.3			93.6		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

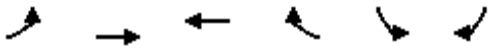
Movement	SBT	SBR2	NEL2	NEL	NER
Lane Configurations					
Traffic Volume (vph)	2	19	4	0	1
Future Volume (vph)	2	19	4	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	5.3			4.6	
Lane Util. Factor	0.95			1.00	
Frpb, ped/bikes	1.00			1.00	
Flpb, ped/bikes	1.00			1.00	
Frt	0.98			0.98	
Flt Protected	0.96			0.96	
Satd. Flow (prot)	1666			1621	
Flt Permitted	0.96			0.96	
Satd. Flow (perm)	1666			1621	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	22	5	0	1
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	189	0	0	6	0
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Heavy Vehicles (%)	2%	2%	10%	10%	10%
Turn Type	NA		Prot	Prot	
Protected Phases	3		4	4	
Permitted Phases					
Actuated Green, G (s)	29.4			1.6	
Effective Green, g (s)	31.4			3.6	
Actuated g/C Ratio	0.17			0.02	
Clearance Time (s)	7.3			6.6	
Vehicle Extension (s)	5.0			3.0	
Lane Grp Cap (vph)	275			30	
v/s Ratio Prot	0.11			c0.00	
v/s Ratio Perm					
v/c Ratio	0.69			0.20	
Uniform Delay, d1	74.7			91.8	
Progression Factor	1.33			1.00	
Incremental Delay, d2	8.3			3.3	
Delay (s)	107.9			95.1	
Level of Service	F			F	
Approach Delay (s)	108.4			95.1	
Approach LOS	F			F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	507	13	3	247	11	6	4	3	4	0	29
Future Volume (Veh/h)	276	507	13	3	247	11	6	4	3	4	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.85	0.85	0.92	0.92	0.92	0.85	0.92	0.85
Hourly flow rate (vph)	325	596	14	3	291	13	7	4	3	5	0	34
Pedestrians					1			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	304			612			1440	1565	308	1258	1566	152
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	304			209			1177	1323	0	963	1323	152
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	74			100			93	96	100	96	100	96
cM capacity (veh/h)	1254			1161			96	98	925	138	98	867

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	623	312	148	158	11	3	39
Volume Left	325	0	3	0	7	0	5
Volume Right	0	14	0	13	0	3	34
cSH	1254	1700	1161	1700	96	925	518
Volume to Capacity	0.26	0.18	0.00	0.09	0.11	0.00	0.08
Queue Length 95th (ft)	26	0	0	0	9	0	6
Control Delay (s)	6.0	0.0	0.2	0.0	47.1	8.9	12.5
Lane LOS	A		A		E	A	B
Approach Delay (s)	4.0		0.1		38.9		12.5
Approach LOS					E		B

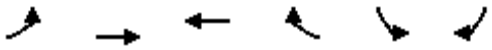
Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	45.4%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	471	253	53	6	8
Future Volume (Veh/h)	43	471	253	53	6	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	51	554	298	62	7	9
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.96	
vC, conflicting volume	361				709	181
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	361				602	181
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				98	99
cM capacity (veh/h)	1193				394	830

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	236	369	199	161	16
Volume Left	51	0	0	0	7
Volume Right	0	0	0	62	9
cSH	1193	1700	1700	1700	559
Volume to Capacity	0.04	0.22	0.12	0.09	0.03
Queue Length 95th (ft)	3	0	0	0	2
Control Delay (s)	2.1	0.0	0.0	0.0	11.6
Lane LOS	A				B
Approach Delay (s)	0.8		0.0		11.6
Approach LOS					B

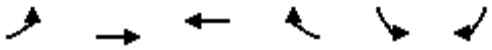
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	434	301	23	6	5
Future Volume (Veh/h)	43	434	301	23	6	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	51	511	354	27	7	6
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	382				726	192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	382				726	192
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				98	99
cM capacity (veh/h)	1172				344	817

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	221	341	236	145	13
Volume Left	51	0	0	0	7
Volume Right	0	0	0	27	6
cSH	1172	1700	1700	1700	469
Volume to Capacity	0.04	0.20	0.14	0.09	0.03
Queue Length 95th (ft)	3	0	0	0	2
Control Delay (s)	2.2	0.0	0.0	0.0	12.9
Lane LOS	A				B
Approach Delay (s)	0.9		0.0		12.9
Approach LOS					B

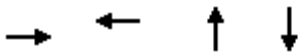
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	35.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	369	307	126	13	17
Future Volume (Veh/h)	70	369	307	126	13	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	82	434	361	148	15	20
Pedestrians		1			2	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	511				818	258
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	511				818	258
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				95	97
cM capacity (veh/h)	1049				289	740

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	227	289	241	268	35
Volume Left	82	0	0	0	15
Volume Right	0	0	0	148	20
cSH	1049	1700	1700	1700	443
Volume to Capacity	0.08	0.17	0.14	0.16	0.08
Queue Length 95th (ft)	6	0	0	0	6
Control Delay (s)	3.6	0.0	0.0	0.0	13.8
Lane LOS	A				B
Approach Delay (s)	1.6		0.0		13.8
Approach LOS					B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	899	346	13	235
v/c Ratio	0.42	0.61	0.23	1.09
Control Delay	3.0	81.2	62.5	139.8
Queue Delay	51.7	0.0	0.0	1.9
Total Delay	54.6	81.2	62.5	141.7
Queue Length 50th (ft)	30	190	6	~278
Queue Length 95th (ft)	m31	265	32	#486
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2118	636	98	215
Starvation Cap Reductn	1366	0	0	0
Spillback Cap Reductn	0	0	0	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.20	0.54	0.13	1.10

Intersection Summary

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

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	730	3	0	276	25	2	3	7	43	8	154
Future Volume (vph)	50	730	3	0	276	25	2	3	7	43	8	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.90	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		3526			3487			1621			1633	
Flt Permitted		1.00			1.00			0.99			0.99	
Satd. Flow (perm)		3526			3487			1621			1633	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	57	839	3	0	317	29	2	3	8	49	9	177
RTOR Reduction (vph)	0	0	0	0	3	0	0	8	0	0	55	0
Lane Group Flow (vph)	0	899	0	0	343	0	0	5	0	0	180	0
Confl. Peds. (#/hr)	2		5	5		2			6	6		
Confl. Bikes (#/hr)			1									3
Turn Type	Split	NA			NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		114.2			30.5			5.7			18.8	
Effective Green, g (s)		107.3			30.5			5.7			18.8	
Actuated g/C Ratio		0.56			0.16			0.03			0.10	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		1991			559			48			161	
v/s Ratio Prot		c0.25			c0.10			c0.00			c0.11	
v/s Ratio Perm												
v/c Ratio		0.45			0.61			0.11			1.12	
Uniform Delay, d1		24.2			74.3			89.7			85.6	
Progression Factor		0.14			1.05			1.00			1.00	
Incremental Delay, d2		0.0			3.1			0.4			106.2	
Delay (s)		3.4			80.8			90.0			191.8	
Level of Service		A			F			F			F	
Approach Delay (s)		3.4			80.8			90.0			191.8	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	51.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	451	422	26	1002	346	1055
v/c Ratio	0.87	0.76	0.57	0.30	0.56	0.98	0.46
Control Delay	146.9	6.1	5.2	109.1	57.8	83.3	42.1
Queue Delay	0.0	54.8	57.3	0.0	0.0	0.0	0.0
Total Delay	146.9	60.9	62.5	109.1	57.8	83.3	42.1
Queue Length 50th (ft)	156	90	93	37	429	338	391
Queue Length 95th (ft)	#288	m2	m0	77	479	#570	446
Internal Link Dist (ft)	420	47			982		920
Turn Bay Length (ft)				190		1000	
Base Capacity (vph)	125	592	741	202	1803	354	2317
Starvation Cap Reductn	0	225	395	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	0.87	1.23	1.22	0.13	0.56	0.98	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	59	15	218	65	555	25	866	96	332	953	56
Future Volume (vph)	31	59	15	218	65	555	25	866	96	332	953	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.95	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794			1637	1504	1770	5009		1770	5040	
Flt Permitted		0.99			0.98	1.00	0.95	1.00		0.16	1.00	
Satd. Flow (perm)		1794			1637	1504	1770	5009		291	5040	
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	0.90
Adj. Flow (vph)	32	61	16	227	68	578	26	902	100	346	993	62
RTOR Reduction (vph)	0	3	0	0	8	205	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	443	217	26	1002	0	346	1055	0
Confl. Peds. (#/hr)			1									
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		13.1			76.0	76.0	7.6	77.2		112.2	97.8	
Effective Green, g (s)		15.1			78.0	78.0	9.6	79.2		114.2	99.8	
Actuated g/C Ratio		0.07			0.35	0.35	0.04	0.36		0.52	0.45	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		123			580	533	77	1803		354	2286	
v/s Ratio Prot		c0.06			c0.27	0.14	0.01	0.20		c0.13	0.21	
v/s Ratio Perm										c0.37		
v/c Ratio		0.86			0.76	0.41	0.34	0.56		0.98	0.46	
Uniform Delay, d1		101.4			62.8	53.5	102.1	56.3		48.0	41.5	
Progression Factor		1.00			0.08	0.37	1.00	1.00		1.00	1.00	
Incremental Delay, d2		43.2			0.7	0.1	2.6	1.2		41.3	0.7	
Delay (s)		144.7			6.0	20.2	104.7	57.6		89.4	42.2	
Level of Service		F			A	C	F	E		F	D	
Approach Delay (s)		144.7			12.9			58.8			53.9	
Approach LOS		F			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	47.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	39	1381	15	1726	363	18	305	290	18
v/c Ratio	0.27	0.41	0.06	0.75	0.33	0.23	1.22	1.20	0.25
Control Delay	16.9	19.6	13.6	32.4	12.0	107.4	198.7	192.9	108.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	19.6	13.6	32.4	12.0	107.4	198.7	192.9	108.6
Queue Length 50th (ft)	19	395	7	1021	145	26	~561	~526	26
Queue Length 95th (ft)	39	465	19	1226	241	59	m#768	m#732	59
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	182	3407	301	2314	1089	80	249	241	130
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.41	0.05	0.75	0.33	0.23	1.22	1.20	0.14

Intersection Summary

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

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

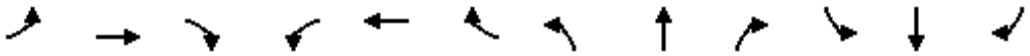
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	36	1259	4	8	9	5	1588	334	6	2	8	453
Future Volume (vph)	36	1259	4	8	9	5	1588	334	6	2	8	453
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5074				1770	3539	1583		1704		1681
Flt Permitted	0.06	1.00				0.15	1.00	1.00		0.98		0.95
Satd. Flow (perm)	107	5074				284	3539	1583		1704		1681
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)	39	1368	4	9	10	5	1726	363	7	2	9	492
RTOR Reduction (vph)	0	0	0	0	0	0	0	59	0	0	0	0
Lane Group Flow (vph)	39	1381	0	0	0	15	1726	304	0	18	0	305
Confl. Peds. (#/hr)			2	2	2	2						
Confl. Bikes (#/hr)			2	2								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	143.3	137.1				138.9	134.9	134.9		5.6		30.7
Effective Green, g (s)	147.3	139.1				142.9	136.9	136.9		7.6		32.7
Actuated g/C Ratio	0.67	0.63				0.65	0.62	0.62		0.03		0.15
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	133	3208				224	2202	985		58		249
v/s Ratio Prot	c0.01	0.27				0.00	c0.49			c0.01		c0.18
v/s Ratio Perm	0.18					0.04		0.19				
v/c Ratio	0.29	0.43				0.07	0.78	0.31		0.31		1.22
Uniform Delay, d1	29.8	20.4				14.9	30.6	19.4		103.6		93.7
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		0.95
Incremental Delay, d2	1.2	0.4				0.1	2.9	0.8		3.0		131.2
Delay (s)	31.0	20.9				15.1	33.5	20.2		106.7		220.3
Level of Service	C	C				B	C	C		F		F
Approach Delay (s)		21.1					31.1			106.7		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	54.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBT	SBR	SBR2	NEL2	NEL	NER
Lane Configurations						
Traffic Volume (vph)	3	4	88	5	3	9
Future Volume (vph)	3	4	88	5	3	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3				4.6	
Lane Util. Factor	0.95				1.00	
Frpb, ped/bikes	1.00				1.00	
Flpb, ped/bikes	1.00				1.00	
Frt	0.95				0.93	
Flt Protected	0.97				0.98	
Satd. Flow (prot)	1624				1563	
Flt Permitted	0.97				0.98	
Satd. Flow (perm)	1624				1563	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	96	5	3	10
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	290	0	0	0	18	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Heavy Vehicles (%)	2%	10%	2%	10%	10%	10%
Turn Type	NA			Prot	Prot	
Protected Phases	3			4	4	
Permitted Phases						
Actuated Green, G (s)	30.7				5.7	
Effective Green, g (s)	32.7				7.7	
Actuated g/C Ratio	0.15				0.04	
Clearance Time (s)	7.3				6.6	
Vehicle Extension (s)	5.0				3.0	
Lane Grp Cap (vph)	241				54	
v/s Ratio Prot	0.18				c0.01	
v/s Ratio Perm						
v/c Ratio	1.20				0.33	
Uniform Delay, d1	93.7				103.6	
Progression Factor	0.95				1.00	
Incremental Delay, d2	123.8				3.6	
Delay (s)	213.0				107.3	
Level of Service	F				F	
Approach Delay (s)	216.7				107.3	
Approach LOS	F				F	

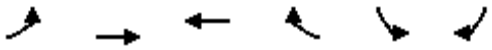
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	352	25	8	566	3	15	1	6	33	0	187
Future Volume (Veh/h)	44	352	25	8	566	3	15	1	6	33	0	187
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.90	0.90	0.92	0.92	0.92	0.90	0.92	0.90
Hourly flow rate (vph)	49	391	27	9	629	3	16	1	7	37	0	208
Pedestrians					2			8			5	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.95			0.95	0.95	0.95	0.95	0.95	
vC, conflicting volume	637			426			1051	1166	219	956	1178	321
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	637			290			948	1068	72	848	1081	321
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			88	99	99	84	100	69
cM capacity (veh/h)	939			1197			133	195	919	225	191	672

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	244	222	324	318	17	7	245
Volume Left	49	0	9	0	16	0	37
Volume Right	0	27	0	3	0	7	208
cSH	939	1700	1197	1700	135	919	517
Volume to Capacity	0.05	0.13	0.01	0.19	0.13	0.01	0.47
Queue Length 95th (ft)	4	0	1	0	10	1	63
Control Delay (s)	2.2	0.0	0.3	0.0	35.4	8.9	18.1
Lane LOS	A		A		E	A	C
Approach Delay (s)	1.2		0.1		27.7		18.1
Approach LOS					D		C

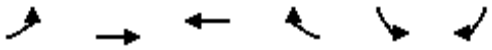
Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	58.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	378	526	8	48	58
Future Volume (Veh/h)	13	378	526	8	48	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	14	420	584	9	53	64
Pedestrians		1			6	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked						
vC, conflicting volume	599				832	304
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	599				832	304
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				82	91
cM capacity (veh/h)	969				301	688

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	154	280	389	204	117
Volume Left	14	0	0	0	53
Volume Right	0	0	0	9	64
cSH	969	1700	1700	1700	435
Volume to Capacity	0.01	0.16	0.23	0.12	0.27
Queue Length 95th (ft)	1	0	0	0	27
Control Delay (s)	0.9	0.0	0.0	0.0	16.3
Lane LOS	A				C
Approach Delay (s)	0.3		0.0		16.3
Approach LOS					C

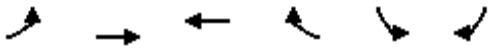
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	419	512	6	19	22
Future Volume (Veh/h)	8	419	512	6	19	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	466	569	7	21	24
Pedestrians			1		8	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	584				832	296
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584				832	296
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	97
cM capacity (veh/h)	980				302	696

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	164	311	379	197	45
Volume Left	9	0	0	0	21
Volume Right	0	0	0	7	24
cSH	980	1700	1700	1700	433
Volume to Capacity	0.01	0.18	0.22	0.12	0.10
Queue Length 95th (ft)	1	0	0	0	9
Control Delay (s)	0.6	0.0	0.0	0.0	14.3
Lane LOS	A				B
Approach Delay (s)	0.2		0.0		14.3
Approach LOS					B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	427	403	23	92	114
Future Volume (Veh/h)	11	427	403	23	92	114
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	474	448	26	102	127
Pedestrians		1			3	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	477				725	241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	477				725	241
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				71	83
cM capacity (veh/h)	1079				355	757

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	170	316	299	175	229
Volume Left	12	0	0	0	102
Volume Right	0	0	0	26	127
cSH	1079	1700	1700	1700	503
Volume to Capacity	0.01	0.19	0.18	0.10	0.45
Queue Length 95th (ft)	1	0	0	0	59
Control Delay (s)	0.7	0.0	0.0	0.0	18.0
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		18.0
Approach LOS					C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

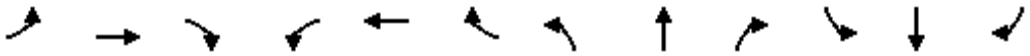
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	559	893	20	183
v/c Ratio	0.27	1.29	0.33	1.32
Control Delay	3.3	207.7	109.5	238.7
Queue Delay	4.9	0.6	0.0	0.0
Total Delay	8.2	208.3	109.5	238.7
Queue Length 50th (ft)	23	~868	26	~308
Queue Length 95th (ft)	m24	#950	61	#474
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2092	693	71	139
Starvation Cap Reductn	1446	0	0	0
Spillback Cap Reductn	0	59	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.87	1.41	0.28	1.32

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	337	2	2	731	44	4	11	2	35	20	104
Future Volume (vph)	148	337	2	2	731	44	4	11	2	35	20	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.99			0.91	
Flt Protected		0.99			1.00			0.99			0.99	
Satd. Flow (prot)		3484			3503			1801			1679	
Flt Permitted		0.99			0.95			0.99			0.99	
Satd. Flow (perm)		3484			3342			1801			1679	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	170	387	2	2	840	51	5	13	2	40	23	120
RTOR Reduction (vph)	0	0	0	0	2	0	0	2	0	0	31	0
Lane Group Flow (vph)	0	559	0	0	891	0	0	18	0	0	152	0
Confl. Peds. (#/hr)	3		2	2		3			7	7		
Turn Type	Split	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		132.2			45.5			7.3			14.2	
Effective Green, g (s)		125.3			45.5			7.3			14.2	
Actuated g/C Ratio		0.57			0.21			0.03			0.06	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		1984			691			59			108	
v/s Ratio Prot		c0.16						c0.01			c0.09	
v/s Ratio Perm					c0.27							
v/c Ratio		0.28			1.29			0.31			1.41	
Uniform Delay, d1		24.3			87.2			103.9			102.9	
Progression Factor		0.15			1.08			1.00			1.00	
Incremental Delay, d2		0.0			140.7			1.1			229.8	
Delay (s)		3.7			235.4			105.0			332.7	
Level of Service		A			F			F			F	
Approach Delay (s)		3.7			235.4			105.0			332.7	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	166.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

City of Fairfax Signal Coordination Timing - East Fairfax Blvd

Intersection # **32** Name: **Chain Bridge (123) & Eaton / Norman**
Group: East FFX Primary: Rte 123

Type: Semi-Actuated Peds: EB (4), NB (2)
Ring: Side-Street Alt. Sequencial (4783) - In ring structure
Overlaps: WB 2nd heads (A=4+7+8)

Coordination Timing

	AM	MD	PM	Offpeak	Night	WE	
TACTICS Pattern	1/2/1	2/2/1	3/2/1			4/2/1	
Splits\Cycle	**190**	**150**	**220**	**Free**	**Free**	**150**	
1	40	23	35			15	
2	51	45	84			46	
3	30	16	20			20	
4	39	39	50			39	
5	25	15	30			20	
6	66	53	89			41	
7	15	12	13			15	
8	15	15	18			15	
Offset (BOG)	40	83	87			91	
Coord Phases	2&6	2&6	2&6			2&6	
Rev. Phases							
Alt Seq							

Phase Timing

Phase	Direction	Min Green	Gap	Walk	FDW	Max 1	Max 2	Amber	All Red	Notes
1	SBLT	5.0	3.0			30	30	4.0	2.8	
2	NB	5.0	3.0	7	14	40	70	4.0	2.8	Max
3	EB	5.0	3.5			30	30	3.5	3.4	
4	WB	5.0	5.5	7	26	25	40	3.5	1.0	
5	NBLT	5.0	3.0			15	15	4.0	2.8	
6	SB	5.0	3.0			40	70	4.0	2.8	Max
7	NB Serv	5.0	2.0			15	15	3.5	1.0	
8	SB Serv	5.0	2.0			15	25	4.0	1.0	

AM: 6-10 M-F
MD: 10-14:45 M-F
PM: 14:45-19 M-F
WE: 10-20 Sat, 12-20 Sun
Free all other times.
Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

New clearances installed 10/31/13
Adjusted 1/16/14

City of Fairfax Signal Coordination Timing - East Fairfax Blvd

Intersection # **34** Name: **Fairfax Blvd.(Lee Hwy) & Eaton**
Group: East FFX Primary: Fairfax Blvd.

Type: Semi-Actuated Peds: SB (3),WB(6)
Ring: Side-Street Sequencial (347)
Overlaps: None

Coordination Timing

	AM	MD	PM	Offpeak	Night	WE	Max WB		
TACTICS Pattern	1/2/1	2/2/1	3/2/1			4/2/1	3/4/1		
Splits\Cycle	**190**	**150**	**220**	**Free**	**Free**	**150**	**240**		
1	15	15	21			15	21		
2	84	63	124			64	148		
3	51	35	38			32	34		
4	25	23	23			25	23		
5	25	25	20			20	15		
6	74	53	125			59	154		
7	15	14	14			14	14		
8	0	0	0			0	0		
Offset (BOG)	116	147	186			20	23		
Coord Phases	2&6	2&6	2&6			2&6	2&6		
Rev. Phases									
Alt Seq									

Phase Timing

Phase	Direction	Min Green	Gap	Walk	FDW	Max 1	Max 2	Amber	All Red	Notes
1	WBLT	5.0	3.0			15	15	4.1	3.9	
2	EB	15.0	5.0			55	60	4.1	3.9	Max
3	SB	5.0	5.0	7	17	25	40	3.5	3.8	
4	NB R.Lob	5.0	3.0			15	15	3.5	3.1	
5	EBLT	5.0	3.0			15	15	4.1	3.9	
6	WB	15.0	5.0	7	15	55	60	4.1	3.9	Max
7	NB Auto	5.0	3.0			10	10	3.4	3.6	
8	n/a									

AM: 6-10 M-F
MD: 10-14:45 M-F
PM: 14:45-19 M-F
WE: 10-20 Sat, 12-20 Sun
Free all other times. No longer flashes at night Jan 2017
Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

APPENDIX D

Individual Pipeline Development Trip Assignments

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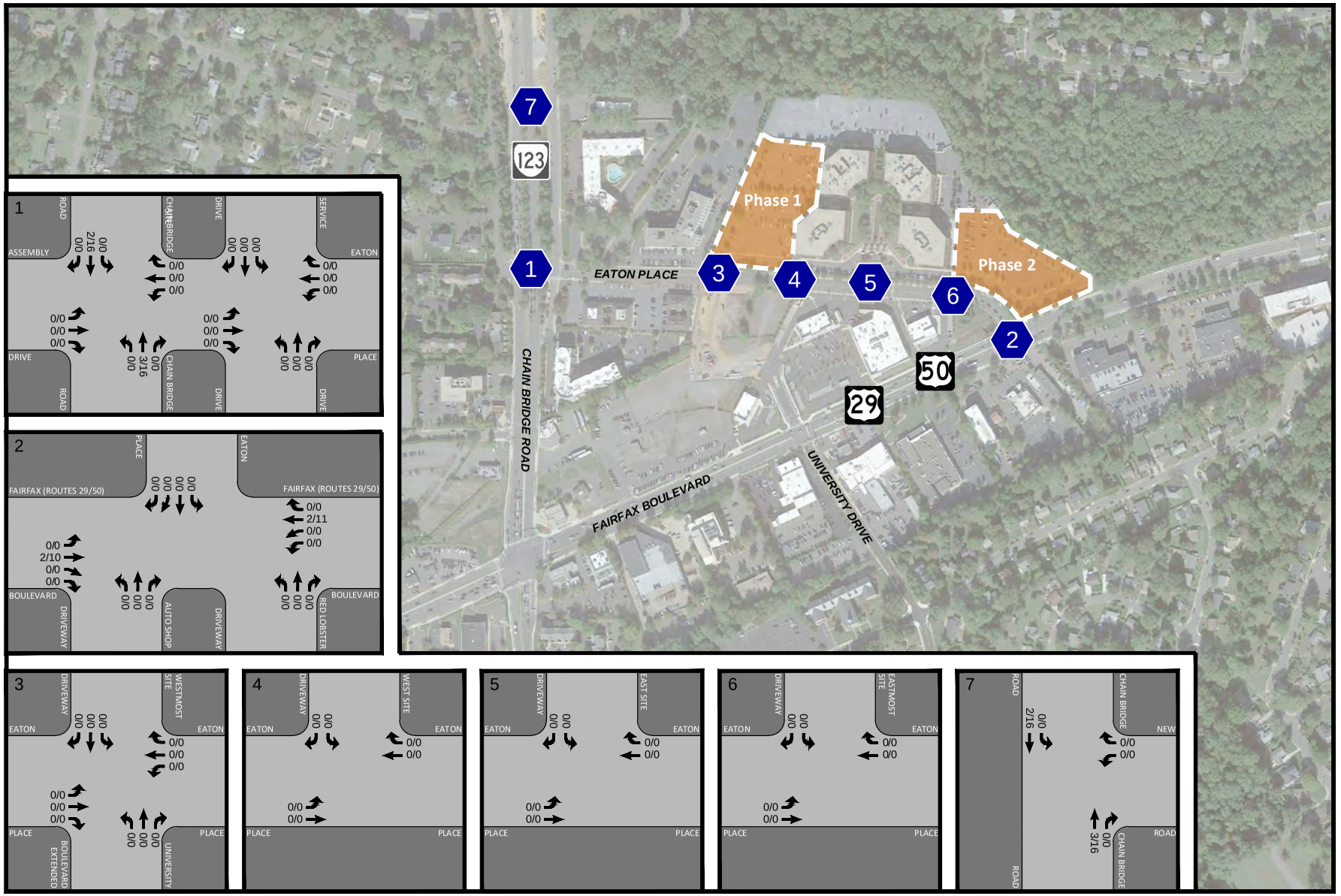


Figure D-1

Breezeway Property Trips

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

O:\PROJECTS\8501-9000\8738 WILLOWWOOD PLAZA\GRAPHICS\23.0414 8738 GRAPHICS.DWG

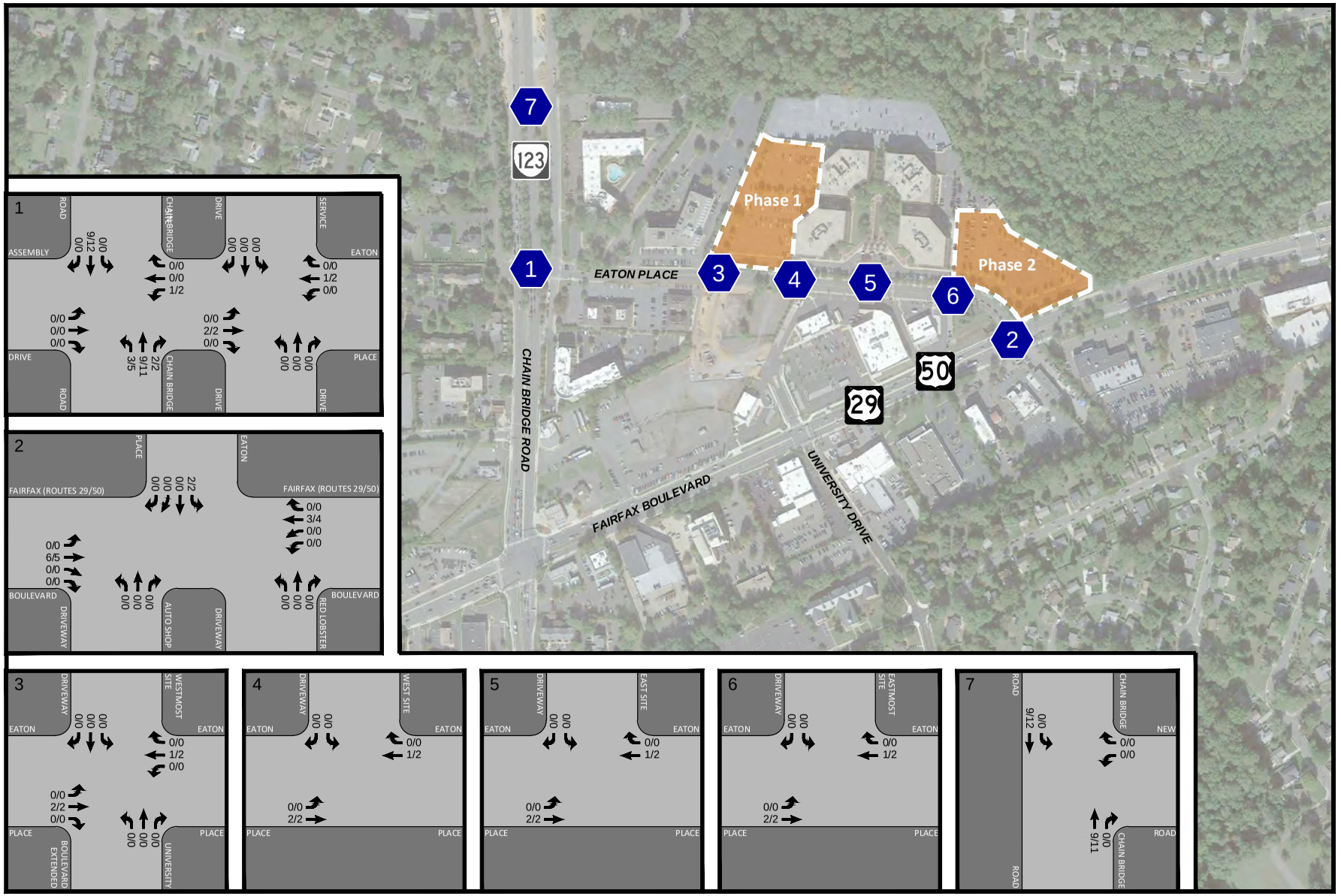


Figure D-2

Northfax Developemnt Trips

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

O:\PROJECTS\8501-9000\8738 WILLOWWOOD PLAZA\GRAPHICS\23.0414 8738 GRAPHICS.DWG

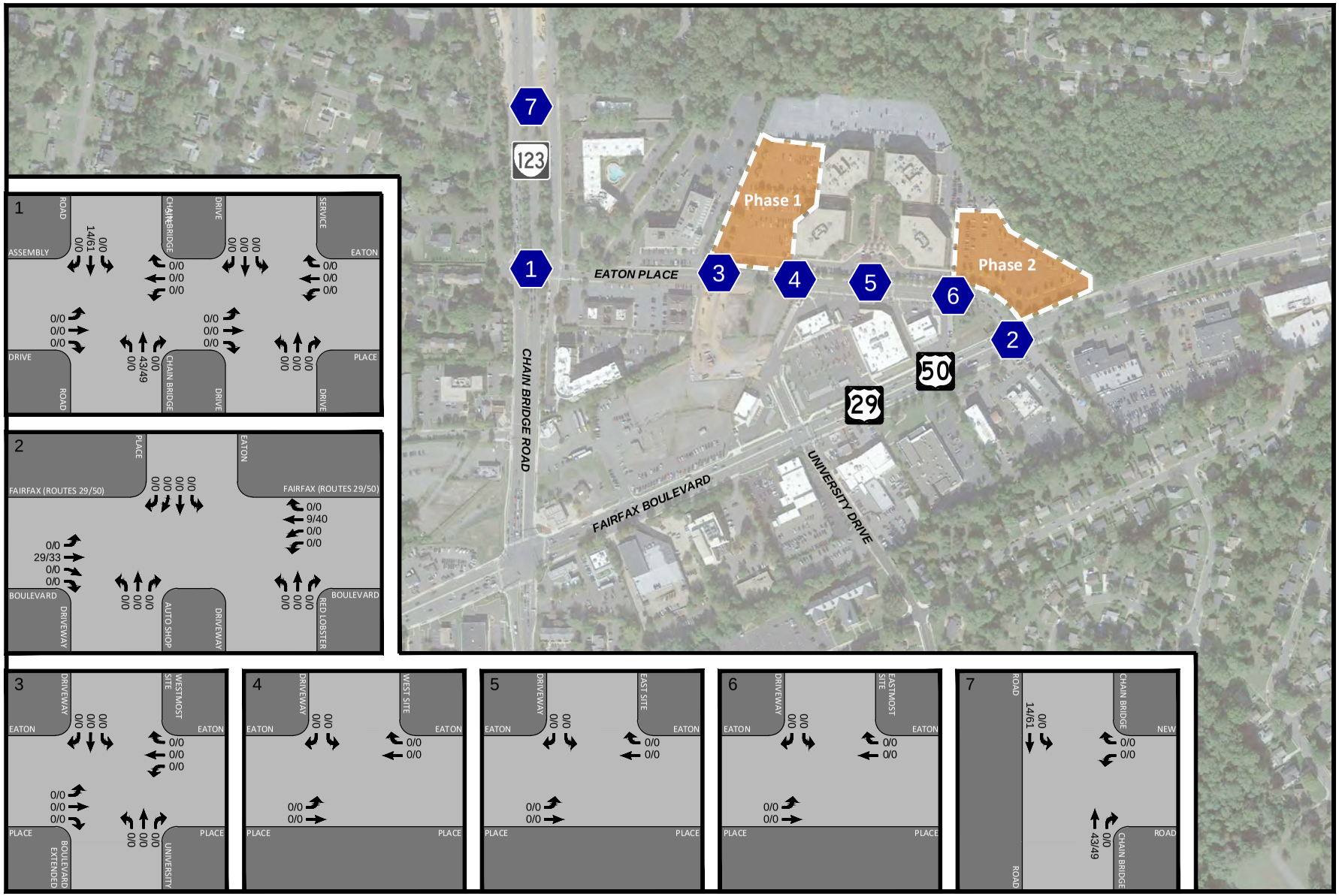


Figure D-3

Paul VI Redevelopemnt Trips

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

O:\PROJECTS\8501-9000\8738 WILLOWWOOD PLAZA\GRAPHICS\23.0414 8738 GRAPHICS.DWG

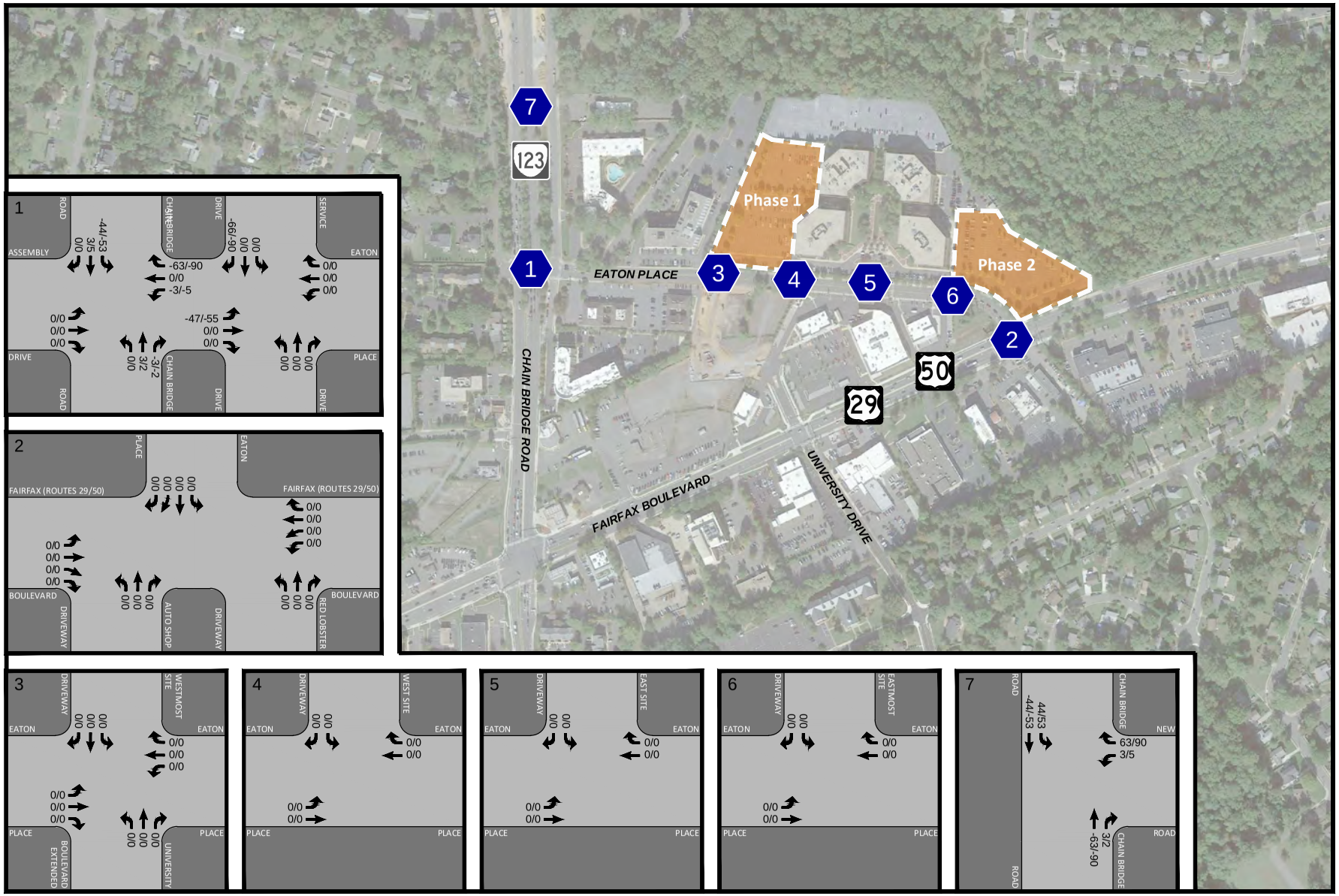


Figure D-4

Traffic Adjustments for Chain Bridge Road Improvements

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

N29 Willowwood
City of Fairfax, Virginia

APPENDIX E

Background Future Capacity Analysis Worksheets

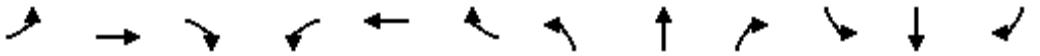
Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	211	187	11	1222	501	1019
v/c Ratio	0.64	0.36	0.29	0.13	1.02	1.37	0.48
Control Delay	88.9	3.5	1.0	89.7	99.3	225.0	48.7
Queue Delay	0.1	2.1	2.3	0.0	0.0	0.0	0.0
Total Delay	89.0	5.7	3.3	89.7	99.3	225.0	48.7
Queue Length 50th (ft)	180	7	0	14	~587	~774	361
Queue Length 95th (ft)	269	m12	m0	39	#684	#1020	465
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	239	587	645	188	1203	366	2140
Starvation Cap Reductn	0	250	336	0	0	0	0
Spillback Cap Reductn	1	25	22	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.63	0.61	0.06	1.02	1.37	0.48

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	71	26	102	62	210	10	945	204	471	936	22
Future Volume (vph)	47	71	26	102	62	210	10	945	204	471	936	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.97	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784			1677	1504	1770	4950		1770	5068	
Flt Permitted		0.98			0.97	1.00	0.95	1.00		0.08	1.00	
Satd. Flow (perm)		1784			1677	1504	1770	4950		146	5068	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	50	76	28	109	66	223	11	1005	217	501	996	23
RTOR Reduction (vph)	0	4	0	0	4	122	0	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	207	65	11	1222	0	501	1019	0
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.1			64.0	64.0	3.3	44.2		84.2	74.1	
Effective Green, g (s)		25.1			66.0	66.0	5.3	46.2		86.2	76.1	
Actuated g/C Ratio		0.13			0.35	0.35	0.03	0.24		0.45	0.40	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		235			582	522	49	1203		367	2029	
v/s Ratio Prot		c0.08			c0.12	0.04	0.01	0.25		c0.25	0.20	
v/s Ratio Perm										c0.37		
v/c Ratio		0.64			0.36	0.12	0.22	1.02		1.37	0.50	
Uniform Delay, d1		78.1			46.2	42.3	90.3	71.9		64.2	42.7	
Progression Factor		1.00			0.05	0.01	1.00	1.00		0.95	1.18	
Incremental Delay, d2		5.8			0.7	0.2	2.3	29.9		180.2	0.8	
Delay (s)		83.9			3.0	0.7	92.7	101.8		241.4	51.2	
Level of Service		F			A	A	F	F		F	D	
Approach Delay (s)		83.9			1.9			101.8			113.9	
Approach LOS		F			A			F			F	

Intersection Summary			
HCM 2000 Control Delay	94.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	103	1869	11	1112	374	4	199	194	6
v/c Ratio	0.31	0.52	0.06	0.49	0.35	0.05	0.70	0.69	0.08
Control Delay	12.0	17.1	12.8	21.9	9.7	88.0	109.8	109.0	88.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	17.1	12.8	21.9	9.7	88.0	109.8	109.0	88.8
Queue Length 50th (ft)	28	278	3	316	70	5	244	238	7
Queue Length 95th (ft)	88	689	16	641	216	18	m314	m308	26
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	384	3610	179	2283	1080	89	404	400	173
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.52	0.06	0.49	0.35	0.04	0.49	0.48	0.03

Intersection Summary

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

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	89	1603	2	3	8	2	956	322	2	0	2	317
Future Volume (vph)	89	1603	2	3	8	2	956	322	2	0	2	317
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	0.99		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5082				1770	3539	1560		1695		1681
Flt Permitted	0.17	1.00				0.08	1.00	1.00		0.98		0.95
Satd. Flow (perm)	324	5082				149	3539	1560		1695		1681
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	103	1864	2	3	9	2	1112	374	2	0	2	369
RTOR Reduction (vph)	0	0	0	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	103	1869	0	0	0	11	1112	288	0	4	0	199
Confl. Peds. (#/hr)	1		1	1	1	1		1				
Confl. Bikes (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	127.3	117.2				112.3	109.7	109.7		1.5		30.2
Effective Green, g (s)	129.8	119.2				116.3	111.7	111.7		3.5		32.2
Actuated g/C Ratio	0.68	0.63				0.61	0.59	0.59		0.02		0.17
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	313	3188				130	2080	917		31		284
v/s Ratio Prot	c0.02	c0.37				0.00	0.31			c0.00		c0.12
v/s Ratio Perm	0.20					0.05		0.18				
v/c Ratio	0.33	0.59				0.08	0.53	0.31		0.13		0.70
Uniform Delay, d1	14.9	20.9				16.9	23.5	19.8		91.8		74.4
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		1.32
Incremental Delay, d2	0.6	0.8				0.3	1.0	0.9		1.9		8.9
Delay (s)	15.5	21.7				17.2	24.5	20.7		93.6		107.2
Level of Service	B	C				B	C	C		F		F
Approach Delay (s)		21.3					23.5			93.6		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

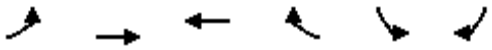
Movement	SBT	SBR2	NEL2	NEL	NER
Lane Configurations					
Traffic Volume (vph)	2	19	4	0	1
Future Volume (vph)	2	19	4	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	5.3			4.6	
Lane Util. Factor	0.95			1.00	
Frpb, ped/bikes	1.00			1.00	
Flpb, ped/bikes	1.00			1.00	
Frt	0.98			0.98	
Flt Protected	0.96			0.96	
Satd. Flow (prot)	1666			1621	
Flt Permitted	0.96			0.96	
Satd. Flow (perm)	1666			1621	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	22	5	0	1
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	194	0	0	6	0
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Heavy Vehicles (%)	2%	2%	10%	10%	10%
Turn Type	NA		Prot	Prot	
Protected Phases	3		4	4	
Permitted Phases					
Actuated Green, G (s)	30.2			1.6	
Effective Green, g (s)	32.2			3.6	
Actuated g/C Ratio	0.17			0.02	
Clearance Time (s)	7.3			6.6	
Vehicle Extension (s)	5.0			3.0	
Lane Grp Cap (vph)	282			30	
v/s Ratio Prot	0.12			c0.00	
v/s Ratio Perm					
v/c Ratio	0.69			0.20	
Uniform Delay, d1	74.2			91.8	
Progression Factor	1.32			1.00	
Incremental Delay, d2	8.2			3.3	
Delay (s)	106.1			95.1	
Level of Service	F			F	
Approach Delay (s)	106.7			95.1	
Approach LOS	F			F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	517	13	3	252	11	6	4	3	4	0	29
Future Volume (Veh/h)	276	517	13	3	252	11	6	4	3	4	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.85	0.85	0.92	0.92	0.92	0.85	0.92	0.85
Hourly flow rate (vph)	325	608	14	3	296	13	7	4	3	5	0	34
Pedestrians					1			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	309			624			1455	1582	314	1268	1582	154
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	309			240			1205	1353	0	989	1353	154
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	74			100			92	96	100	96	100	96
cM capacity (veh/h)	1248			1138			92	94	931	133	94	864

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	629	318	151	161	11	3	39
Volume Left	325	0	3	0	7	0	5
Volume Right	0	14	0	13	0	3	34
cSH	1248	1700	1138	1700	93	931	507
Volume to Capacity	0.26	0.19	0.00	0.09	0.12	0.00	0.08
Queue Length 95th (ft)	26	0	0	0	10	0	6
Control Delay (s)	6.0	0.0	0.2	0.0	49.0	8.9	12.7
Lane LOS	A		A		E	A	B
Approach Delay (s)	4.0		0.1		40.4		12.7
Approach LOS					E		B

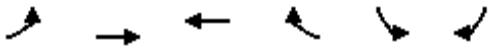
Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	481	259	53	6	8
Future Volume (Veh/h)	43	481	259	53	6	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	51	566	305	62	7	9
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.93	
vC, conflicting volume	368				722	184
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	368				554	184
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				98	99
cM capacity (veh/h)	1186				412	826

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	240	377	203	164	16
Volume Left	51	0	0	0	7
Volume Right	0	0	0	62	9
cSH	1186	1700	1700	1700	573
Volume to Capacity	0.04	0.22	0.12	0.10	0.03
Queue Length 95th (ft)	3	0	0	0	2
Control Delay (s)	2.0	0.0	0.0	0.0	11.5
Lane LOS	A				B
Approach Delay (s)	0.8		0.0		11.5
Approach LOS					B

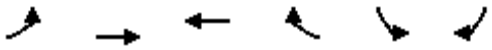
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	444	307	23	6	5
Future Volume (Veh/h)	43	444	307	23	6	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	51	522	361	27	7	6
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	389				738	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	389				738	195
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				98	99
cM capacity (veh/h)	1165				337	813

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	225	348	241	147	13
Volume Left	51	0	0	0	7
Volume Right	0	0	0	27	6
cSH	1165	1700	1700	1700	462
Volume to Capacity	0.04	0.20	0.14	0.09	0.03
Queue Length 95th (ft)	3	0	0	0	2
Control Delay (s)	2.2	0.0	0.0	0.0	13.0
Lane LOS	A				B
Approach Delay (s)	0.9		0.0		13.0
Approach LOS					B

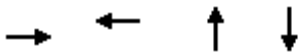
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	378	313	126	13	17
Future Volume (Veh/h)	70	378	313	126	13	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	82	445	368	148	15	20
Pedestrians		1			2	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	518				830	261
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	518				830	261
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				95	97
cM capacity (veh/h)	1042				284	736

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	230	297	245	271	35
Volume Left	82	0	0	0	15
Volume Right	0	0	0	148	20
cSH	1042	1700	1700	1700	437
Volume to Capacity	0.08	0.17	0.14	0.16	0.08
Queue Length 95th (ft)	6	0	0	0	6
Control Delay (s)	3.6	0.0	0.0	0.0	14.0
Lane LOS	A				B
Approach Delay (s)	1.6		0.0		14.0
Approach LOS					B

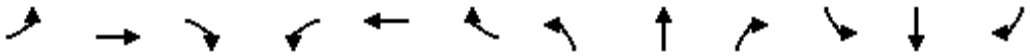
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	857	353	13	159
v/c Ratio	0.40	0.65	0.23	0.78
Control Delay	3.3	83.5	62.5	87.0
Queue Delay	51.8	0.0	0.0	0.0
Total Delay	55.1	83.5	62.5	87.0
Queue Length 50th (ft)	36	197	6	155
Queue Length 95th (ft)	m31	274	32	#331
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2124	636	98	203
Starvation Cap Reductn	1387	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.16	0.56	0.13	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	740	3	0	282	25	2	3	7	43	8	88
Future Volume (vph)	3	740	3	0	282	25	2	3	7	43	8	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.91	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		3536			3488			1621			1658	
Flt Permitted		1.00			1.00			0.99			0.98	
Satd. Flow (perm)		3536			3488			1621			1658	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	3	851	3	0	324	29	2	3	8	49	9	101
RTOR Reduction (vph)	0	0	0	0	3	0	0	8	0	0	31	0
Lane Group Flow (vph)	0	857	0	0	350	0	0	5	0	0	128	0
Confl. Peds. (#/hr)	2		5	5		2			6	6		
Confl. Bikes (#/hr)			1									3
Turn Type	Split	NA			NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		114.2			29.5			5.7			19.8	
Effective Green, g (s)		107.3			29.5			5.7			19.8	
Actuated g/C Ratio		0.56			0.16			0.03			0.10	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		1996			541			48			172	
v/s Ratio Prot		c0.24			c0.10			c0.00			c0.08	
v/s Ratio Perm												
v/c Ratio		0.43			0.65			0.11			0.74	
Uniform Delay, d1		23.8			75.4			89.7			82.6	
Progression Factor		0.16			1.05			1.00			1.00	
Incremental Delay, d2		0.0			3.9			0.4			14.0	
Delay (s)		3.8			83.0			90.0			96.6	
Level of Service		A			F			F			F	
Approach Delay (s)		3.8			83.0			90.0			96.6	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	35.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	3	68	1307	48	1550
v/c Ratio	0.03	0.44	0.33	0.49	0.36
Control Delay	78.7	23.3	34.2	102.6	3.5
Queue Delay	0.0	0.0	0.7	0.0	0.0
Total Delay	78.7	23.3	35.0	102.6	3.5
Queue Length 50th (ft)	4	0	559	59	96
Queue Length 95th (ft)	15	52	m568	109	230
Internal Link Dist (ft)	173		608		231
Turn Bay Length (ft)				200	
Base Capacity (vph)	251	283	3939	158	4358
Starvation Cap Reductn	0	0	2149	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.01	0.24	0.73	0.30	0.36

Intersection Summary

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	3	63	1200	3	44	1426
Future Volume (vph)	3	63	1200	3	44	1426
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0		8.0	8.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	5084		1770	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	5084		1770	5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	68	1304	3	48	1550
RTOR Reduction (vph)	0	64	0	0	0	0
Lane Group Flow (vph)	3	4	1307	0	48	1550
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	11.2	11.2	145.6		9.2	162.8
Effective Green, g (s)	11.2	11.2	145.6		9.2	162.8
Actuated g/C Ratio	0.06	0.06	0.77		0.05	0.86
Clearance Time (s)	8.0	8.0	8.0		8.0	8.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	104	93	3895		85	4357
v/s Ratio Prot	0.00		0.26		0.03	c0.30
v/s Ratio Perm		c0.00				
v/c Ratio	0.03	0.04	0.34		0.56	0.36
Uniform Delay, d1	84.3	84.3	7.0		88.4	2.8
Progression Factor	1.00	1.00	4.39		1.00	1.00
Incremental Delay, d2	0.1	0.2	0.1		8.3	0.2
Delay (s)	84.4	84.5	30.8		96.8	3.0
Level of Service	F	F	C		F	A
Approach Delay (s)	84.5		30.8			5.8
Approach LOS	F		C			A

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	211	187	11	1222	501	1019
v/c Ratio	0.64	0.36	0.29	0.13	0.99	0.81	0.68
Control Delay	88.9	3.5	1.0	89.7	93.1	82.6	57.0
Queue Delay	0.0	2.1	2.3	0.0	0.0	0.0	3.4
Total Delay	88.9	5.7	3.3	89.7	93.1	82.6	60.4
Queue Length 50th (ft)	180	7	0	14	~587	312	583
Queue Length 95th (ft)	269	m12	m0	39	#684	384	764
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	239	587	645	188	1233	636	1490
Starvation Cap Reductn	0	250	336	0	0	0	364
Spillback Cap Reductn	0	25	22	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.63	0.61	0.06	0.99	0.79	0.90

Intersection Summary

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

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	71	26	102	62	210	10	945	204	471	936	22
Future Volume (vph)	47	71	26	102	62	210	10	945	204	471	936	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.97	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784			1677	1504	1770	4950		3433	3527	
Flt Permitted		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1784			1677	1504	1770	4950		3433	3527	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	50	76	28	109	66	223	11	1005	217	501	996	23
RTOR Reduction (vph)	0	4	0	0	4	122	0	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	207	65	11	1222	0	501	1019	0
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		23.1			64.0	64.0	3.3	45.4		32.0	74.1	
Effective Green, g (s)		25.1			66.0	66.0	5.3	47.4		34.0	76.1	
Actuated g/C Ratio		0.13			0.35	0.35	0.03	0.25		0.18	0.40	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		235			582	522	49	1234		614	1412	
v/s Ratio Prot		c0.08			c0.12	0.04	0.01	c0.25		c0.15	0.29	
v/s Ratio Perm												
v/c Ratio		0.64			0.36	0.12	0.22	0.99		0.82	0.72	
Uniform Delay, d1		78.1			46.2	42.3	90.3	71.1		75.0	48.0	
Progression Factor		1.00			0.05	0.01	1.00	1.00		0.96	1.19	
Incremental Delay, d2		5.8			0.7	0.2	2.3	23.4		7.9	3.1	
Delay (s)		83.9			3.0	0.7	92.7	94.5		79.6	60.0	
Level of Service		F			A	A	F	F		E	E	
Approach Delay (s)		83.9			1.9			94.5			66.5	
Approach LOS		F			A			F			E	

Intersection Summary			
HCM 2000 Control Delay	69.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	412	375	31	1079	297	1145
v/c Ratio	0.79	0.72	0.52	0.34	0.58	0.89	0.49
Control Delay	130.2	6.1	5.7	109.9	57.4	86.7	41.3
Queue Delay	0.0	56.6	58.9	0.0	0.0	0.0	0.3
Total Delay	130.2	62.7	64.6	109.9	57.4	86.7	41.6
Queue Length 50th (ft)	156	104	93	44	471	326	368
Queue Length 95th (ft)	#288	m0	m0	87	522	#520	397
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	138	582	727	202	1863	342	2331
Starvation Cap Reductn	0	252	422	0	0	0	493
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.25	1.23	0.15	0.58	0.87	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	59	15	217	65	473	30	939	97	285	1040	56
Future Volume (vph)	31	59	15	217	65	473	30	939	97	285	1040	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.96	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794			1648	1504	1770	5014		1770	5044	
Flt Permitted		0.99			0.97	1.00	0.95	1.00		0.14	1.00	
Satd. Flow (perm)		1794			1648	1504	1770	5014		259	5044	
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	0.90
Adj. Flow (vph)	32	61	16	226	68	493	31	978	101	297	1083	62
RTOR Reduction (vph)	0	3	0	0	7	204	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	405	171	31	1079	0	297	1145	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		14.6			73.4	73.4	8.2	79.7		113.3	98.3	
Effective Green, g (s)		16.6			75.4	75.4	10.2	81.7		115.3	100.3	
Actuated g/C Ratio		0.08			0.34	0.34	0.05	0.37		0.52	0.46	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		135			564	515	82	1862		333	2299	
v/s Ratio Prot		c0.06			c0.25	0.11	0.02	0.22		c0.12	0.23	
v/s Ratio Perm										c0.35		
v/c Ratio		0.79			0.72	0.33	0.38	0.58		0.89	0.50	
Uniform Delay, d1		100.0			63.1	53.6	101.8	55.4		45.2	42.1	
Progression Factor		1.00			0.09	0.57	1.00	1.00		1.51	0.96	
Incremental Delay, d2		26.0			0.5	0.1	2.9	1.3		23.7	0.7	
Delay (s)		126.0			6.1	30.4	104.7	56.7		91.8	41.2	
Level of Service		F			A	C	F	E		F	D	
Approach Delay (s)		126.0			17.7			58.1			51.6	
Approach LOS		F			B			E			D	

Intersection Summary			
HCM 2000 Control Delay	48.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	40	1485	15	1849	370	18	311	295	18
v/c Ratio	0.33	0.44	0.07	0.80	0.34	0.23	1.25	1.22	0.25
Control Delay	20.4	20.2	13.7	34.9	12.7	107.4	205.2	197.8	108.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	20.2	13.7	34.9	12.7	107.4	205.2	197.8	108.6
Queue Length 50th (ft)	19	437	7	1174	158	26	~581	~544	26
Queue Length 95th (ft)	42	512	19	1408	257	59	#814	#774	59
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	159	3408	279	2313	1086	80	249	241	130
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.44	0.05	0.80	0.34	0.23	1.25	1.22	0.14

Intersection Summary

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

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

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	37	1354	4	8	9	5	1701	340	6	2	8	462
Future Volume (vph)	37	1354	4	8	9	5	1701	340	6	2	8	462
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5075				1770	3539	1583		1704		1681
Flt Permitted	0.04	1.00				0.13	1.00	1.00		0.98		0.95
Satd. Flow (perm)	73	5075				247	3539	1583		1704		1681
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)	40	1472	4	9	10	5	1849	370	7	2	9	502
RTOR Reduction (vph)	0	0	0	0	0	0	0	56	0	0	0	0
Lane Group Flow (vph)	40	1485	0	0	0	15	1849	314	0	18	0	311
Confl. Peds. (#/hr)			2	2	2	2						
Confl. Bikes (#/hr)			2	2								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	143.4	137.1				138.8	134.8	134.8		5.6		30.7
Effective Green, g (s)	147.4	139.1				142.8	136.8	136.8		7.6		32.7
Actuated g/C Ratio	0.67	0.63				0.65	0.62	0.62		0.03		0.15
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	112	3208				201	2200	984		58		249
v/s Ratio Prot	c0.01	0.29				0.00	c0.52			c0.01		c0.18
v/s Ratio Perm	0.22					0.05		0.20				
v/c Ratio	0.36	0.46				0.07	0.84	0.32		0.31		1.25
Uniform Delay, d1	36.8	21.0				15.4	33.0	19.6		103.6		93.7
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		0.93
Incremental Delay, d2	2.0	0.5				0.2	4.1	0.9		3.0		140.8
Delay (s)	38.7	21.5				15.5	37.0	20.5		106.7		227.4
Level of Service	D	C				B	D	C		F		F
Approach Delay (s)		22.0					34.1			106.7		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	56.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

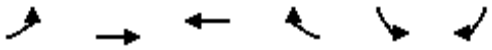
Movement	SBT	SBR	SBR2	NEL2	NEL	NER
Lane Configurations						
Traffic Volume (vph)	3	4	89	5	3	9
Future Volume (vph)	3	4	89	5	3	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3				4.6	
Lane Util. Factor	0.95				1.00	
Frpb, ped/bikes	1.00				1.00	
Flpb, ped/bikes	1.00				1.00	
Frt	0.95				0.93	
Flt Protected	0.97				0.98	
Satd. Flow (prot)	1624				1563	
Flt Permitted	0.97				0.98	
Satd. Flow (perm)	1624				1563	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	97	5	3	10
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	295	0	0	0	18	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Heavy Vehicles (%)	2%	10%	2%	10%	10%	10%
Turn Type	NA			Prot	Prot	
Protected Phases	3			4	4	
Permitted Phases						
Actuated Green, G (s)	30.7				5.7	
Effective Green, g (s)	32.7				7.7	
Actuated g/C Ratio	0.15				0.04	
Clearance Time (s)	7.3				6.6	
Vehicle Extension (s)	5.0				3.0	
Lane Grp Cap (vph)	241				54	
v/s Ratio Prot	0.18				c0.01	
v/s Ratio Perm						
v/c Ratio	1.22				0.33	
Uniform Delay, d1	93.7				103.6	
Progression Factor	0.93				1.00	
Incremental Delay, d2	131.9				3.6	
Delay (s)	218.5				107.3	
Level of Service	F				F	
Approach Delay (s)	223.1				107.3	
Approach LOS	F				F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	361	25	8	577	3	15	1	6	33	0	187
Future Volume (Veh/h)	44	361	25	8	577	3	15	1	6	33	0	187
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.90	0.90	0.92	0.92	0.92	0.90	0.92	0.90
Hourly flow rate (vph)	49	401	27	9	641	3	16	1	7	37	0	208
Pedestrians					2			8			5	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.95			0.95	0.95	0.95	0.95	0.95	
vC, conflicting volume	649			436			1067	1188	224	974	1200	327
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	649			299			964	1091	76	865	1103	327
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			99			88	99	99	83	100	69
cM capacity (veh/h)	929			1187			129	189	913	218	185	666

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	250	228	330	324	17	7	245
Volume Left	49	0	9	0	16	0	37
Volume Right	0	27	0	3	0	7	208
cSH	929	1700	1187	1700	131	913	509
Volume to Capacity	0.05	0.13	0.01	0.19	0.13	0.01	0.48
Queue Length 95th (ft)	4	0	1	0	11	1	65
Control Delay (s)	2.2	0.0	0.3	0.0	36.5	9.0	18.5
Lane LOS	A		A		E	A	C
Approach Delay (s)	1.2		0.1		28.5		18.5
Approach LOS					D		C

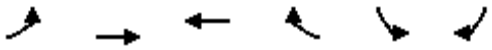
Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	58.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	387	537	8	48	58
Future Volume (Veh/h)	13	387	537	8	48	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	14	430	597	9	53	64
Pedestrians		1			6	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.99	
vC, conflicting volume	612				850	310
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	612				826	310
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				82	91
cM capacity (veh/h)	958				301	682

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	157	287	398	208	117
Volume Left	14	0	0	0	53
Volume Right	0	0	0	9	64
cSH	958	1700	1700	1700	433
Volume to Capacity	0.01	0.17	0.23	0.12	0.27
Queue Length 95th (ft)	1	0	0	0	27
Control Delay (s)	0.9	0.0	0.0	0.0	16.4
Lane LOS	A				C
Approach Delay (s)	0.3		0.0		16.4
Approach LOS					C

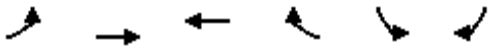
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	428	523	6	19	22
Future Volume (Veh/h)	8	428	523	6	19	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	476	581	7	21	24
Pedestrians			1		8	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	596				850	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	596				850	302
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				93	97
cM capacity (veh/h)	970				295	689

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	168	317	387	201	45
Volume Left	9	0	0	0	21
Volume Right	0	0	0	7	24
cSH	970	1700	1700	1700	424
Volume to Capacity	0.01	0.19	0.23	0.12	0.11
Queue Length 95th (ft)	1	0	0	0	9
Control Delay (s)	0.6	0.0	0.0	0.0	14.5
Lane LOS	A				B
Approach Delay (s)	0.2		0.0		14.5
Approach LOS					B

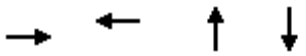
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	27.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	436	413	23	92	114
Future Volume (Veh/h)	11	436	413	23	92	114
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	484	459	26	102	127
Pedestrians		1			3	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	488				741	246
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	488				741	246
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				71	83
cM capacity (veh/h)	1069				347	751

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	173	323	306	179	229
Volume Left	12	0	0	0	102
Volume Right	0	0	0	26	127
cSH	1069	1700	1700	1700	494
Volume to Capacity	0.01	0.19	0.18	0.11	0.46
Queue Length 95th (ft)	1	0	0	0	60
Control Delay (s)	0.7	0.0	0.0	0.0	18.4
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		18.4
Approach LOS					C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	504	906	20	73
v/c Ratio	0.24	1.31	0.34	0.74
Control Delay	3.1	214.7	110.4	137.0
Queue Delay	2.5	0.6	0.0	0.0
Total Delay	5.6	215.3	110.4	137.0
Queue Length 50th (ft)	21	~891	26	101
Queue Length 95th (ft)	22	#969	61	#173
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2142	693	71	109
Starvation Cap Reductn	1481	0	0	0
Spillback Cap Reductn	0	61	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.76	1.43	0.28	0.67

Intersection Summary

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

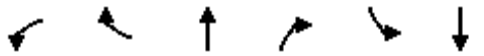
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	344	2	2	742	44	4	11	2	35	20	9
Future Volume (vph)	93	344	2	2	742	44	4	11	2	35	20	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.99			0.98	
Flt Protected		0.99			1.00			0.99			0.97	
Satd. Flow (prot)		3500			3503			1801			1780	
Flt Permitted		0.99			0.95			0.99			0.97	
Satd. Flow (perm)		3500			3343			1801			1780	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	107	395	2	2	853	51	5	13	2	40	23	10
RTOR Reduction (vph)	0	0	0	0	2	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	504	0	0	904	0	0	18	0	0	70	0
Confl. Peds. (#/hr)	3		2	2		3			7	7		
Turn Type	Split	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		134.8			45.5			7.1			11.8	
Effective Green, g (s)		127.9			45.5			7.1			11.8	
Actuated g/C Ratio		0.58			0.21			0.03			0.05	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		2034			691			58			95	
v/s Ratio Prot		c0.14						c0.01			c0.04	
v/s Ratio Perm					c0.27							
v/c Ratio		0.25			1.31			0.31			0.74	
Uniform Delay, d1		22.5			87.2			104.1			102.6	
Progression Factor		0.15			1.09			1.00			1.00	
Incremental Delay, d2		0.0			149.2			1.1			22.5	
Delay (s)		3.4			244.2			105.2			125.0	
Level of Service		A			F			F			F	
Approach Delay (s)		3.4			244.2			105.2			125.0	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	155.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	5	98	1559	58	1485
v/c Ratio	0.05	0.56	0.39	0.58	0.33
Control Delay	94.6	26.1	3.9	122.7	3.0
Queue Delay	0.0	0.0	0.3	0.0	0.0
Total Delay	94.6	26.1	4.2	122.7	3.0
Queue Length 50th (ft)	7	0	10	84	90
Queue Length 95th (ft)	24	67	546	142	213
Internal Link Dist (ft)	173		608		231
Turn Bay Length (ft)				200	
Base Capacity (vph)	217	280	3980	136	4454
Starvation Cap Reductn	0	0	1469	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.35	0.62	0.43	0.33

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	90	1432	2	53	1366
Future Volume (vph)	5	90	1432	2	53	1366
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0		8.0	8.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	5084		1770	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	5084		1770	5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	98	1557	2	58	1485
RTOR Reduction (vph)	0	93	0	0	0	0
Lane Group Flow (vph)	5	5	1559	0	58	1485
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	11.3	11.3	172.2		12.5	192.7
Effective Green, g (s)	11.3	11.3	172.2		12.5	192.7
Actuated g/C Ratio	0.05	0.05	0.78		0.06	0.88
Clearance Time (s)	8.0	8.0	8.0		8.0	8.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	90	81	3979		100	4453
v/s Ratio Prot	0.00		c0.31		c0.03	0.29
v/s Ratio Perm		c0.00				
v/c Ratio	0.06	0.06	0.39		0.58	0.33
Uniform Delay, d1	99.3	99.3	7.5		101.2	2.4
Progression Factor	1.00	1.00	0.44		1.00	1.00
Incremental Delay, d2	0.3	0.3	0.2		7.9	0.2
Delay (s)	99.5	99.6	3.6		109.1	2.6
Level of Service	F	F	A		F	A
Approach Delay (s)	99.6		3.6			6.6
Approach LOS	F		A			A

Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	412	375	31	1079	297	1145
v/c Ratio	0.79	0.72	0.52	0.34	0.56	0.71	0.71
Control Delay	130.2	6.1	5.7	109.9	55.7	106.3	48.8
Queue Delay	0.0	56.6	58.9	0.0	0.0	0.0	0.7
Total Delay	130.2	62.7	64.6	109.9	55.7	106.3	49.5
Queue Length 50th (ft)	156	104	93	44	461	224	720
Queue Length 95th (ft)	#288	m0	m0	87	522	287	570
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	138	582	727	202	1910	471	1622
Starvation Cap Reductn	0	252	422	0	0	0	184
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.25	1.23	0.15	0.56	0.63	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	59	15	217	65	473	30	939	97	285	1040	56
Future Volume (vph)	31	59	15	217	65	473	30	939	97	285	1040	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.96	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794			1648	1504	1770	5014		3433	3510	
Flt Permitted		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1794			1648	1504	1770	5014		3433	3510	
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	0.90
Adj. Flow (vph)	32	61	16	226	68	493	31	978	101	297	1083	62
RTOR Reduction (vph)	0	3	0	0	7	204	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	405	171	31	1079	0	297	1145	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		14.6			73.4	73.4	8.2	81.8		24.7	98.3	
Effective Green, g (s)		16.6			75.4	75.4	10.2	83.8		26.7	100.3	
Actuated g/C Ratio		0.08			0.34	0.34	0.05	0.38		0.12	0.46	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		135			564	515	82	1909		416	1600	
v/s Ratio Prot		c0.06			c0.25	0.11	0.02	0.22		c0.09	c0.33	
v/s Ratio Perm												
v/c Ratio		0.79			0.72	0.33	0.38	0.57		0.71	0.72	
Uniform Delay, d1		100.0			63.1	53.6	101.8	53.7		93.0	48.3	
Progression Factor		1.00			0.09	0.57	1.00	1.00		1.04	0.95	
Incremental Delay, d2		26.0			0.5	0.1	2.9	1.2		5.5	2.7	
Delay (s)		126.0			6.1	30.4	104.7	54.9		102.4	48.5	
Level of Service		F			A	C	F	D		F	D	
Approach Delay (s)		126.0			17.7			56.3			59.6	
Approach LOS		F			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

APPENDIX F

Total Future Capacity Analysis Worksheets

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	248	223	11	1231	518	1019
v/c Ratio	0.64	0.42	0.33	0.13	1.02	1.42	0.48
Control Delay	88.9	3.1	1.1	89.7	101.3	243.4	48.7
Queue Delay	0.1	2.6	3.0	0.0	0.0	0.0	0.0
Total Delay	89.0	5.7	4.1	89.7	101.3	243.4	48.7
Queue Length 50th (ft)	180	5	0	14	~596	~817	361
Queue Length 95th (ft)	269	m10	m1	39	#693	#1065	465
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	239	588	671	188	1201	366	2140
Starvation Cap Reductn	0	229	343	0	0	0	0
Spillback Cap Reductn	1	106	96	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.69	0.68	0.06	1.02	1.42	0.48

Intersection Summary

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

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	71	26	125	62	256	10	945	212	487	936	22
Future Volume (vph)	47	71	26	125	62	256	10	945	212	487	936	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.97	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1784			1668	1504	1770	4945		1770	5068	
Flt Permitted		0.98			0.97	1.00	0.95	1.00		0.08	1.00	
Satd. Flow (perm)		1784			1668	1504	1770	4945		146	5068	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	50	76	28	133	66	272	11	1005	226	518	996	23
RTOR Reduction (vph)	0	4	0	0	5	146	0	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	243	77	11	1231	0	518	1019	0
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		23.1			64.0	64.0	3.3	44.2		84.2	74.1	
Effective Green, g (s)		25.1			66.0	66.0	5.3	46.2		86.2	76.1	
Actuated g/C Ratio		0.13			0.35	0.35	0.03	0.24		0.45	0.40	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		235			579	522	49	1202		367	2029	
v/s Ratio Prot		c0.08			c0.15	0.05	0.01	0.25		c0.26	0.20	
v/s Ratio Perm										c0.38		
v/c Ratio		0.64			0.42	0.15	0.22	1.02		1.41	0.50	
Uniform Delay, d1		78.1			47.4	42.7	90.3	71.9		64.2	42.7	
Progression Factor		1.00			0.04	0.03	1.00	1.00		0.95	1.18	
Incremental Delay, d2		5.8			0.8	0.2	2.3	32.3		200.0	0.8	
Delay (s)		83.9			2.5	1.7	92.7	104.2		261.1	51.2	
Level of Service		F			A	A	F	F		F	D	
Approach Delay (s)		83.9			2.1			104.1			121.9	
Approach LOS		F			A			F			F	

Intersection Summary			
HCM 2000 Control Delay	97.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	107	1869	11	1112	388	4	224	222	6
v/c Ratio	0.33	0.53	0.07	0.50	0.37	0.05	0.72	0.73	0.08
Control Delay	13.3	18.7	14.0	24.0	10.7	88.0	106.3	106.7	88.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	18.7	14.0	24.0	10.7	88.0	106.3	106.7	88.8
Queue Length 50th (ft)	32	305	3	342	80	5	270	268	7
Queue Length 95th (ft)	94	713	17	666	235	18	m358	m357	26
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	373	3529	174	2218	1058	89	404	398	173
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.53	0.06	0.50	0.37	0.04	0.55	0.56	0.03

Intersection Summary

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

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	92	1603	2	3	8	2	956	334	2	0	2	351
Future Volume (vph)	92	1603	2	3	8	2	956	334	2	0	2	351
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	0.99		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5082				1770	3539	1560		1695		1681
Flt Permitted	0.17	1.00				0.08	1.00	1.00		0.98		0.95
Satd. Flow (perm)	313	5082				145	3539	1560		1695		1681
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	107	1864	2	3	9	2	1112	388	2	0	2	408
RTOR Reduction (vph)	0	0	0	0	0	0	0	93	0	0	0	0
Lane Group Flow (vph)	107	1869	0	0	0	11	1112	295	0	4	0	224
Confl. Peds. (#/hr)	1		1	1	1	1		1				
Confl. Bikes (#/hr)			1	1								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	124.8	114.2				108.8	106.2	106.2		1.5		33.2
Effective Green, g (s)	126.8	116.2				112.8	108.2	108.2		3.5		35.2
Actuated g/C Ratio	0.67	0.61				0.59	0.57	0.57		0.02		0.19
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	305	3108				125	2015	888		31		311
v/s Ratio Prot	c0.02	c0.37				0.00	0.31			c0.00		0.13
v/s Ratio Perm	0.21					0.05		0.19				
v/c Ratio	0.35	0.60				0.09	0.55	0.33		0.13		0.72
Uniform Delay, d1	16.5	22.7				18.5	25.7	21.7		91.8		72.8
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		1.30
Incremental Delay, d2	0.7	0.9				0.3	1.1	1.0		1.9		9.3
Delay (s)	17.2	23.5				18.8	26.8	22.7		93.6		103.8
Level of Service	B	C				B	C	C		F		F
Approach Delay (s)		23.2					25.7			93.6		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

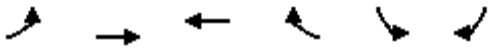
Movement	SBT	SBR2	NEL2	NEL	NER
Lane Configurations					
Traffic Volume (vph)	2	31	4	0	1
Future Volume (vph)	2	31	4	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	5.3			4.6	
Lane Util. Factor	0.95			1.00	
Frpb, ped/bikes	1.00			1.00	
Flpb, ped/bikes	1.00			1.00	
Frt	0.98			0.98	
Flt Protected	0.96			0.96	
Satd. Flow (prot)	1658			1621	
Flt Permitted	0.96			0.96	
Satd. Flow (perm)	1658			1621	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	36	5	0	1
RTOR Reduction (vph)	0	0	0	0	0
Lane Group Flow (vph)	222	0	0	6	0
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Heavy Vehicles (%)	2%	2%	10%	10%	10%
Turn Type	NA		Prot	Prot	
Protected Phases	3		4	4	
Permitted Phases					
Actuated Green, G (s)	33.2			1.6	
Effective Green, g (s)	35.2			3.6	
Actuated g/C Ratio	0.19			0.02	
Clearance Time (s)	7.3			6.6	
Vehicle Extension (s)	5.0			3.0	
Lane Grp Cap (vph)	307			30	
v/s Ratio Prot	c0.13			c0.00	
v/s Ratio Perm					
v/c Ratio	0.72			0.20	
Uniform Delay, d1	72.8			91.8	
Progression Factor	1.30			1.00	
Incremental Delay, d2	9.5			3.3	
Delay (s)	104.0			95.1	
Level of Service	F			F	
Approach Delay (s)	103.9			95.1	
Approach LOS	F			F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	530	13	3	291	13	6	4	3	10	0	59
Future Volume (Veh/h)	287	530	13	3	291	13	6	4	3	10	0	59
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.85	0.85	0.92	0.92	0.92	0.85	0.92	0.85
Hourly flow rate (vph)	338	624	14	3	342	15	7	4	3	12	0	69
Pedestrians					1			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.85			0.85	0.85	0.85	0.85	0.85	
vC, conflicting volume	357			640			1555	1672	322	1350	1672	178
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	357			239			1309	1446	0	1069	1446	178
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	72			100			90	95	100	89	100	92
cM capacity (veh/h)	1198			1131			71	80	924	112	80	834

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	650	326	174	186	11	3	81
Volume Left	338	0	3	0	7	0	12
Volume Right	0	14	0	15	0	3	69
cSH	1198	1700	1131	1700	74	924	427
Volume to Capacity	0.28	0.19	0.00	0.11	0.15	0.00	0.19
Queue Length 95th (ft)	29	0	0	0	12	0	17
Control Delay (s)	6.3	0.0	0.2	0.0	61.9	8.9	15.4
Lane LOS	A		A		F	A	C
Approach Delay (s)	4.2		0.1		50.5		15.4
Approach LOS					F		C

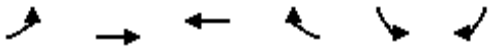
Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	52.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	53	490	273	60	28	34
Future Volume (Veh/h)	53	490	273	60	28	34
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	62	576	321	71	33	40
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.93	
vC, conflicting volume	393				770	197
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	393				594	197
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				91	95
cM capacity (veh/h)	1161				382	810

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	254	384	214	178	73
Volume Left	62	0	0	0	33
Volume Right	0	0	0	71	40
cSH	1161	1700	1700	1700	538
Volume to Capacity	0.05	0.23	0.13	0.10	0.14
Queue Length 95th (ft)	4	0	0	0	12
Control Delay (s)	2.4	0.0	0.0	0.0	12.7
Lane LOS	A				B
Approach Delay (s)	1.0		0.0		12.7
Approach LOS					B

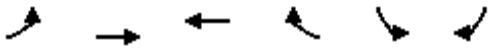
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	44	475	327	24	8	6
Future Volume (Veh/h)	44	475	327	24	8	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	52	559	385	28	9	7
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	414				784	208
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	414				784	208
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				97	99
cM capacity (veh/h)	1140				315	798

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	238	373	257	156	16
Volume Left	52	0	0	0	9
Volume Right	0	0	0	28	7
cSH	1140	1700	1700	1700	429
Volume to Capacity	0.05	0.22	0.15	0.09	0.04
Queue Length 95th (ft)	4	0	0	0	3
Control Delay (s)	2.1	0.0	0.0	0.0	13.7
Lane LOS	A				B
Approach Delay (s)	0.8		0.0		13.7
Approach LOS					B

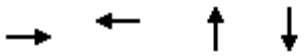
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	408	323	131	30	28
Future Volume (Veh/h)	74	408	323	131	30	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	87	480	380	154	35	33
Pedestrians		1			2	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	536				873	270
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	536				873	270
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				87	95
cM capacity (veh/h)	1026				265	726

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	247	320	253	281	68
Volume Left	87	0	0	0	35
Volume Right	0	0	0	154	33
cSH	1026	1700	1700	1700	383
Volume to Capacity	0.08	0.19	0.15	0.17	0.18
Queue Length 95th (ft)	7	0	0	0	16
Control Delay (s)	3.6	0.0	0.0	0.0	16.4
Lane LOS	A				C
Approach Delay (s)	1.6		0.0		16.4
Approach LOS					C

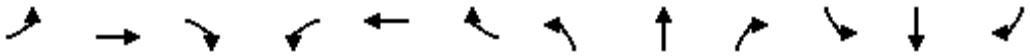
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	884	432	13	159
v/c Ratio	0.42	0.72	0.23	0.90
Control Delay	3.3	84.0	62.5	108.2
Queue Delay	51.7	0.0	0.0	0.0
Total Delay	55.1	84.0	62.5	108.2
Queue Length 50th (ft)	37	245	6	159
Queue Length 95th (ft)	m31	332	32	#331
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2124	637	98	177
Starvation Cap Reductn	1380	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.19	0.68	0.13	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	764	3	0	351	25	2	3	7	43	8	88
Future Volume (vph)	3	764	3	0	351	25	2	3	7	43	8	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.92			0.91	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		3537			3498			1621			1656	
Flt Permitted		1.00			1.00			0.99			0.98	
Satd. Flow (perm)		3537			3498			1621			1656	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	3	878	3	0	403	29	2	3	8	49	9	101
RTOR Reduction (vph)	0	0	0	0	2	0	0	8	0	0	32	0
Lane Group Flow (vph)	0	884	0	0	430	0	0	5	0	0	127	0
Confl. Peds. (#/hr)	2		5	5		2			6	6		
Confl. Bikes (#/hr)			1									3
Turn Type	Split	NA			NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		114.2			32.5			5.7			16.8	
Effective Green, g (s)		107.3			32.5			5.7			16.8	
Actuated g/C Ratio		0.56			0.17			0.03			0.09	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		1997			598			48			146	
v/s Ratio Prot		c0.25			c0.12			c0.00			c0.08	
v/s Ratio Perm												
v/c Ratio		0.44			0.72			0.11			0.87	
Uniform Delay, d1		24.0			74.4			89.7			85.5	
Progression Factor		0.16			1.04			1.00			1.00	
Incremental Delay, d2		0.0			5.4			0.4			38.3	
Delay (s)		3.9			82.9			90.0			123.8	
Level of Service		A			F			F			F	
Approach Delay (s)		3.9			82.9			90.0			123.8	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	3	68	1356	48	1567
v/c Ratio	0.03	0.44	0.34	0.49	0.36
Control Delay	78.7	23.3	33.6	102.6	3.5
Queue Delay	0.0	0.0	0.8	0.0	0.0
Total Delay	78.7	23.3	34.4	102.6	3.5
Queue Length 50th (ft)	4	0	581	59	98
Queue Length 95th (ft)	15	52	m592	109	233
Internal Link Dist (ft)	173		608		231
Turn Bay Length (ft)				200	
Base Capacity (vph)	251	283	3939	158	4358
Starvation Cap Reductn	0	0	2117	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.01	0.24	0.74	0.30	0.36

Intersection Summary

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

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	3	63	1245	3	44	1442
Future Volume (vph)	3	63	1245	3	44	1442
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0		8.0	8.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	5084		1770	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	5084		1770	5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	68	1353	3	48	1567
RTOR Reduction (vph)	0	64	0	0	0	0
Lane Group Flow (vph)	3	4	1356	0	48	1567
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	11.2	11.2	145.6		9.2	162.8
Effective Green, g (s)	11.2	11.2	145.6		9.2	162.8
Actuated g/C Ratio	0.06	0.06	0.77		0.05	0.86
Clearance Time (s)	8.0	8.0	8.0		8.0	8.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	104	93	3895		85	4357
v/s Ratio Prot	0.00		0.27		0.03	c0.31
v/s Ratio Perm		c0.00				
v/c Ratio	0.03	0.04	0.35		0.56	0.36
Uniform Delay, d1	84.3	84.3	7.1		88.4	2.8
Progression Factor	1.00	1.00	4.26		1.00	1.00
Incremental Delay, d2	0.1	0.2	0.1		8.3	0.2
Delay (s)	84.4	84.5	30.2		96.8	3.0
Level of Service	F	F	C		F	A
Approach Delay (s)	84.5		30.2			5.8
Approach LOS	F		C			A

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	248	223	11	1231	518	1019
v/c Ratio	0.64	0.42	0.33	0.13	1.01	0.83	0.68
Control Delay	88.7	3.1	1.1	89.7	97.4	83.5	57.1
Queue Delay	0.0	2.6	3.0	0.0	0.0	0.0	3.4
Total Delay	88.7	5.7	4.0	89.7	97.4	83.5	60.4
Queue Length 50th (ft)	180	5	0	14	~596	324	583
Queue Length 95th (ft)	269	m10	m1	39	#693	397	763
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	240	588	671	188	1219	636	1490
Starvation Cap Reductn	0	228	342	0	0	0	364
Spillback Cap Reductn	0	106	96	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.69	0.68	0.06	1.01	0.81	0.90

Intersection Summary

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

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

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

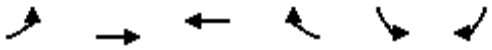
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	71	26	125	62	256	10	945	212	487	936	22
Future Volume (vph)	47	71	26	125	62	256	10	945	212	487	936	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.97	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1788			1668	1504	1770	4945		3433	3527	
Flt Permitted		0.98			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1788			1668	1504	1770	4945		3433	3527	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	50	76	28	133	66	272	11	1005	226	518	996	23
RTOR Reduction (vph)	0	4	0	0	5	146	0	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	243	77	11	1231	0	518	1019	0
Confl. Peds. (#/hr)	1					1						
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		23.1			64.0	64.0	3.3	44.9		32.5	74.1	
Effective Green, g (s)		25.1			66.0	66.0	5.3	46.9		34.5	76.1	
Actuated g/C Ratio		0.13			0.35	0.35	0.03	0.25		0.18	0.40	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		236			579	522	49	1220		623	1412	
v/s Ratio Prot		c0.08			c0.15	0.05	0.01	c0.25		c0.15	0.29	
v/s Ratio Perm												
v/c Ratio		0.63			0.42	0.15	0.22	1.01		0.83	0.72	
Uniform Delay, d1		78.1			47.4	42.7	90.3	71.5		74.9	48.0	
Progression Factor		1.00			0.03	0.03	1.00	1.00		0.96	1.19	
Incremental Delay, d2		5.7			0.8	0.2	2.3	28.0		8.8	3.1	
Delay (s)		83.8			2.5	1.6	92.7	99.5		80.5	60.0	
Level of Service		F			A	A	F	F		F	E	
Approach Delay (s)		83.8			2.1			99.5			66.9	
Approach LOS		F			A			F			E	

Intersection Summary			
HCM 2000 Control Delay	70.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	530	13	3	291	13	6	4	3	10	0	59
Future Volume (Veh/h)	287	530	13	3	291	13	6	4	3	10	0	59
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.92	0.92	0.85	0.85	0.92	0.92	0.92	0.85	0.92	0.85
Hourly flow rate (vph)	338	624	14	3	342	15	7	4	3	12	0	69
Pedestrians					1			2				
Lane Width (ft)					12.0			12.0				
Walking Speed (ft/s)					4.0			4.0				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.83			0.83	0.83	0.83	0.83	0.83	
vC, conflicting volume	357			640			1726	1672	634	1662	1672	350
vC1, stage 1 conf vol							1309	1309		356	356	
vC2, stage 2 conf vol							417	363		1306	1316	
vCu, unblocked vol	357			468			1771	1706	461	1694	1706	350
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	72			100			94	97	99	89	100	90
cM capacity (veh/h)	1202			910			109	131	499	113	134	694

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	338	638	3	357	11	3	81
Volume Left	338	0	3	0	7	0	12
Volume Right	0	14	0	15	0	3	69
cSH	1202	1700	910	1700	116	499	394
Volume to Capacity	0.28	0.38	0.00	0.21	0.09	0.01	0.21
Queue Length 95th (ft)	29	0	0	0	8	0	19
Control Delay (s)	9.2	0.0	9.0	0.0	39.3	12.3	16.5
Lane LOS	A		A		E	B	C
Approach Delay (s)	3.2		0.1		33.5		16.5
Approach LOS					D		C

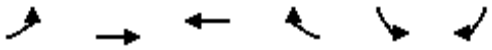
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	53	490	273	60	28	34
Future Volume (Veh/h)	53	490	273	60	28	34
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	62	576	321	71	33	40
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.84	
vC, conflicting volume	393				1058	358
vC1, stage 1 conf vol					358	
vC2, stage 2 conf vol					700	
vCu, unblocked vol	393				973	358
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	95				92	94
cM capacity (veh/h)	1165				417	686

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	62	576	392	73
Volume Left	62	0	0	33
Volume Right	0	0	71	40
cSH	1165	1700	1700	531
Volume to Capacity	0.05	0.34	0.23	0.14
Queue Length 95th (ft)	4	0	0	12
Control Delay (s)	8.3	0.0	0.0	12.9
Lane LOS	A			B
Approach Delay (s)	0.8		0.0	12.9
Approach LOS				B

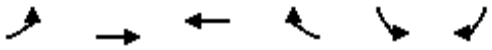
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	44	475	327	24	8	6
Future Volume (Veh/h)	44	475	327	24	8	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	52	559	385	28	9	7
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1145	621			
pX, platoon unblocked					0.85	
vC, conflicting volume	414				1063	400
vC1, stage 1 conf vol					400	
vC2, stage 2 conf vol					663	
vCu, unblocked vol	414				986	400
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	95				98	99
cM capacity (veh/h)	1144				430	649

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	52	559	413	16
Volume Left	52	0	0	9
Volume Right	0	0	28	7
cSH	1144	1700	1700	504
Volume to Capacity	0.05	0.33	0.24	0.03
Queue Length 95th (ft)	4	0	0	2
Control Delay (s)	8.3	0.0	0.0	12.4
Lane LOS	A			B
Approach Delay (s)	0.7		0.0	12.4
Approach LOS				B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	408	323	131	30	28
Future Volume (Veh/h)	74	408	323	131	30	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	87	480	380	154	35	33
Pedestrians		1			2	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)			307			
pX, platoon unblocked	0.98				0.98	0.98
vC, conflicting volume	536				1113	460
vC1, stage 1 conf vol					459	
vC2, stage 2 conf vol					654	
vCu, unblocked vol	518				1106	441
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	92				92	95
cM capacity (veh/h)	1027				413	604

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	87	480	534	68
Volume Left	87	0	0	35
Volume Right	0	0	154	33
cSH	1027	1700	1700	488
Volume to Capacity	0.08	0.28	0.31	0.14
Queue Length 95th (ft)	7	0	0	12
Control Delay (s)	8.8	0.0	0.0	13.6
Lane LOS	A			B
Approach Delay (s)	1.4		0.0	13.6
Approach LOS				B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	434	396	31	1124	340	1172
v/c Ratio	0.78	0.76	0.55	0.34	0.62	1.02	0.50
Control Delay	127.5	7.5	7.1	109.9	60.0	118.3	41.7
Queue Delay	0.0	56.1	58.8	0.0	0.0	0.0	0.3
Total Delay	127.5	63.6	65.8	109.9	60.0	118.3	42.0
Queue Length 50th (ft)	156	137	126	44	497	~425	377
Queue Length 95th (ft)	#288	m0	m0	87	548	#640	405
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	140	581	725	202	1801	334	2323
Starvation Cap Reductn	0	251	419	0	0	0	479
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.32	1.29	0.15	0.62	1.02	0.64

Intersection Summary

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

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	59	15	231	65	500	30	961	118	326	1066	56
Future Volume (vph)	31	59	15	231	65	500	30	961	118	326	1066	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		1.00	0.91	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.96	0.85	1.00	0.98		1.00	0.99	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794			1647	1504	1770	5002		1770	5045	
Flt Permitted		0.99			0.97	1.00	0.95	1.00		0.12	1.00	
Satd. Flow (perm)		1794			1647	1504	1770	5002		225	5045	
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	0.90
Adj. Flow (vph)	32	61	16	241	68	521	31	1001	123	340	1110	62
RTOR Reduction (vph)	0	3	0	0	7	203	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	427	193	31	1124	0	340	1172	0
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)			1									
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		pm+pt	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)		15.0			73.4	73.4	8.2	77.1		112.9	97.9	
Effective Green, g (s)		17.0			75.4	75.4	10.2	79.1		114.9	99.9	
Actuated g/C Ratio		0.08			0.34	0.34	0.05	0.36		0.52	0.45	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		138			564	515	82	1798		335	2290	
v/s Ratio Prot		c0.06			c0.26	0.13	0.02	0.22		c0.14	0.23	
v/s Ratio Perm										c0.39		
v/c Ratio		0.77			0.76	0.37	0.38	0.63		1.01	0.51	
Uniform Delay, d1		99.6			64.2	54.5	101.8	58.2		58.1	42.7	
Progression Factor		1.00			0.11	0.58	1.00	1.00		1.41	0.96	
Incremental Delay, d2		23.0			0.7	0.1	2.9	1.7		51.8	0.8	
Delay (s)		122.6			7.5	31.5	104.7	59.9		133.7	41.7	
Level of Service		F			A	C	F	E		F	D	
Approach Delay (s)		122.6			19.0			61.1			62.4	
Approach LOS		F			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	53.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	NEL
Lane Group Flow (vph)	51	1461	15	1821	403	18	325	310	18
v/c Ratio	0.40	0.43	0.06	0.81	0.38	0.23	1.31	1.29	0.25
Control Delay	26.4	20.0	13.8	36.3	13.5	107.4	225.6	219.9	108.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	20.0	13.8	36.3	13.5	107.4	225.6	219.9	108.6
Queue Length 50th (ft)	25	427	7	1143	176	26	~624	~592	26
Queue Length 95th (ft)	63	501	19	1394	287	59	#864	#822	59
Internal Link Dist (ft)		810		1204		100		99	220
Turn Bay Length (ft)	260		140						
Base Capacity (vph)	159	3408	285	2256	1069	80	249	241	130
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.43	0.05	0.81	0.38	0.23	1.31	1.29	0.14

Intersection Summary

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

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

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	47	1332	4	8	9	5	1675	371	6	2	8	482
Future Volume (vph)	47	1332	4	8	9	5	1675	371	6	2	8	482
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0				6.0	6.0	6.0		5.0		5.3
Lane Util. Factor	1.00	0.91				1.00	0.95	1.00		1.00		0.95
Frpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Flpb, ped/bikes	1.00	1.00				1.00	1.00	1.00		1.00		1.00
Frt	1.00	1.00				1.00	1.00	0.85		0.93		1.00
Flt Protected	0.95	1.00				0.95	1.00	1.00		0.98		0.95
Satd. Flow (prot)	1770	5075				1770	3539	1583		1704		1681
Flt Permitted	0.04	1.00				0.14	1.00	1.00		0.98		0.95
Satd. Flow (perm)	74	5075				259	3539	1583		1704		1681
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)	51	1448	4	9	10	5	1821	403	7	2	9	524
RTOR Reduction (vph)	0	0	0	0	0	0	0	64	0	0	0	0
Lane Group Flow (vph)	51	1461	0	0	0	15	1821	339	0	18	0	325
Confl. Peds. (#/hr)			2	2	2	2						
Confl. Bikes (#/hr)			2	2								
Heavy Vehicles (%)	2%	2%	2%	10%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA			pm+pt	pm+pt	NA	Perm	Split	NA		Split
Protected Phases	5	2			1	1	6		7	7		3
Permitted Phases	2				6	6		6				
Actuated Green, G (s)	145.3	137.1				136.9	132.9	132.9		5.6		30.7
Effective Green, g (s)	149.3	139.1				140.9	134.9	134.9		7.6		32.7
Actuated g/C Ratio	0.68	0.63				0.64	0.61	0.61		0.03		0.15
Clearance Time (s)	8.0	8.0				8.0	8.0	8.0		7.0		7.3
Vehicle Extension (s)	3.0	5.0				3.0	5.0	5.0		3.0		5.0
Lane Grp Cap (vph)	128	3208				207	2170	970		58		249
v/s Ratio Prot	c0.02	c0.29				0.00	c0.51			c0.01		c0.19
v/s Ratio Perm	0.25					0.04		0.21				
v/c Ratio	0.40	0.46				0.07	0.84	0.35		0.31		1.31
Uniform Delay, d1	38.0	20.9				15.7	33.9	21.0		103.6		93.7
Progression Factor	1.00	1.00				1.00	1.00	1.00		1.00		0.95
Incremental Delay, d2	2.0	0.5				0.1	4.1	1.0		3.0		163.2
Delay (s)	40.1	21.4				15.9	38.0	21.9		106.7		252.0
Level of Service	D	C				B	D	C		F		F
Approach Delay (s)		22.0					35.0			106.7		
Approach LOS		C					C			F		

Intersection Summary			
HCM 2000 Control Delay	61.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	32.9
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

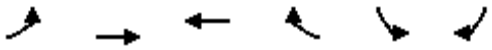
Movement	SBT	SBR	SBR2	NEL2	NEL	NER
Lane Configurations						
Traffic Volume (vph)	3	4	96	5	3	9
Future Volume (vph)	3	4	96	5	3	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3				4.6	
Lane Util. Factor	0.95				1.00	
Frpb, ped/bikes	1.00				1.00	
Flpb, ped/bikes	1.00				1.00	
Frt	0.95				0.93	
Flt Protected	0.97				0.98	
Satd. Flow (prot)	1623				1563	
Flt Permitted	0.97				0.98	
Satd. Flow (perm)	1623				1563	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	4	104	5	3	10
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	310	0	0	0	18	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Heavy Vehicles (%)	2%	10%	2%	10%	10%	10%
Turn Type	NA			Prot	Prot	
Protected Phases	3			4	4	
Permitted Phases						
Actuated Green, G (s)	30.7				5.7	
Effective Green, g (s)	32.7				7.7	
Actuated g/C Ratio	0.15				0.04	
Clearance Time (s)	7.3				6.6	
Vehicle Extension (s)	5.0				3.0	
Lane Grp Cap (vph)	241				54	
v/s Ratio Prot	0.19				c0.01	
v/s Ratio Perm						
v/c Ratio	1.29				0.33	
Uniform Delay, d1	93.7				103.6	
Progression Factor	0.95				1.00	
Incremental Delay, d2	156.3				3.6	
Delay (s)	245.2				107.3	
Level of Service	F				F	
Approach Delay (s)	248.6				107.3	
Approach LOS	F				F	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	396	25	8	600	8	15	1	6	36	0	204
Future Volume (Veh/h)	71	396	25	8	600	8	15	1	6	36	0	204
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.90	0.90	0.92	0.92	0.92	0.90	0.92	0.90
Hourly flow rate (vph)	79	440	27	9	667	9	16	1	7	40	0	227
Pedestrians					2			8			5	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.93			0.93	0.93	0.93	0.93	0.93	
vC, conflicting volume	681			475			1198	1318	244	1082	1328	343
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	681			299			1072	1201	51	948	1211	343
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			99			84	99	99	78	100	65
cM capacity (veh/h)	904			1169			97	154	933	182	152	650

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	299	247	342	342	17	7	267
Volume Left	79	0	9	0	16	0	40
Volume Right	0	27	0	9	0	7	227
cSH	904	1700	1169	1700	99	933	469
Volume to Capacity	0.09	0.15	0.01	0.20	0.17	0.01	0.57
Queue Length 95th (ft)	7	0	1	0	15	1	87
Control Delay (s)	3.2	0.0	0.3	0.0	48.6	8.9	22.3
Lane LOS	A		A		E	A	C
Approach Delay (s)	1.7		0.1		37.0		22.3
Approach LOS					E		C

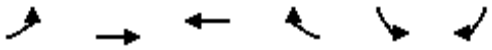
Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	62.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	401	548	27	61	73
Future Volume (Veh/h)	36	401	548	27	61	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	40	446	609	30	68	81
Pedestrians		1			6	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.98	
vC, conflicting volume	645				933	326
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	645				887	326
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				74	88
cM capacity (veh/h)	931				264	665

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	189	297	406	233	149
Volume Left	40	0	0	0	68
Volume Right	0	0	0	30	81
cSH	931	1700	1700	1700	393
Volume to Capacity	0.04	0.17	0.24	0.14	0.38
Queue Length 95th (ft)	3	0	0	0	43
Control Delay (s)	2.3	0.0	0.0	0.0	19.6
Lane LOS	A				C
Approach Delay (s)	0.9		0.0		19.6
Approach LOS					C

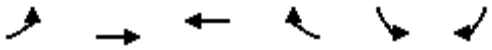
Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	454	553	8	21	23
Future Volume (Veh/h)	9	454	553	8	21	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	504	614	9	23	26
Pedestrians			1		8	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1145	621			
pX, platoon unblocked						
vC, conflicting volume	631				900	320
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	631				900	320
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	96
cM capacity (veh/h)	941				273	672

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	178	336	409	214	49
Volume Left	10	0	0	0	23
Volume Right	0	0	0	9	26
cSH	941	1700	1700	1700	399
Volume to Capacity	0.01	0.20	0.24	0.13	0.12
Queue Length 95th (ft)	1	0	0	0	10
Control Delay (s)	0.6	0.0	0.0	0.0	15.3
Lane LOS	A				C
Approach Delay (s)	0.2		0.0		15.3
Approach LOS					C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	454	439	38	101	120
Future Volume (Veh/h)	21	454	439	38	101	120
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	23	504	488	42	112	133
Pedestrians		1			3	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			307			
pX, platoon unblocked						
vC, conflicting volume	533				810	269
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	533				810	269
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				64	82
cM capacity (veh/h)	1028				310	727

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	191	336	325	205	245
Volume Left	23	0	0	0	112
Volume Right	0	0	0	42	133
cSH	1028	1700	1700	1700	450
Volume to Capacity	0.02	0.20	0.19	0.12	0.54
Queue Length 95th (ft)	2	0	0	0	80
Control Delay (s)	1.2	0.0	0.0	0.0	22.2
Lane LOS	A				C
Approach Delay (s)	0.4		0.0		22.2
Approach LOS					C

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

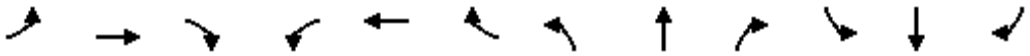
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	573	952	20	73
v/c Ratio	0.27	1.37	0.33	0.75
Control Delay	2.9	238.8	109.8	138.5
Queue Delay	4.0	0.8	0.0	0.0
Total Delay	6.9	239.6	109.8	138.5
Queue Length 50th (ft)	22	~962	26	102
Queue Length 95th (ft)	m22	#1038	61	#173
Internal Link Dist (ft)	47	487	120	220
Turn Bay Length (ft)				
Base Capacity (vph)	2147	693	71	108
Starvation Cap Reductn	1469	0	0	0
Spillback Cap Reductn	0	75	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.85	1.54	0.28	0.68

Intersection Summary

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

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	404	2	2	782	44	4	11	2	35	20	9
Future Volume (vph)	93	404	2	2	782	44	4	11	2	35	20	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8			4.5			4.5			5.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.99			0.98	
Flt Protected		0.99			1.00			0.99			0.97	
Satd. Flow (prot)		3504			3505			1801			1780	
Flt Permitted		0.99			0.95			0.99			0.97	
Satd. Flow (perm)		3504			3344			1801			1780	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	107	464	2	2	899	51	5	13	2	40	23	10
RTOR Reduction (vph)	0	0	0	0	2	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	573	0	0	950	0	0	18	0	0	70	0
Confl. Peds. (#/hr)	3		2	2		3			7	7		
Turn Type	Split	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases	1 2 3	1 2 3			4		7	7		8	8	
Permitted Phases				4								
Actuated Green, G (s)		134.8			45.5			7.2			11.7	
Effective Green, g (s)		127.9			45.5			7.2			11.7	
Actuated g/C Ratio		0.58			0.21			0.03			0.05	
Clearance Time (s)					4.5			4.5			5.0	
Vehicle Extension (s)					5.5			2.0			2.0	
Lane Grp Cap (vph)		2037			691			58			94	
v/s Ratio Prot		c0.16						c0.01			c0.04	
v/s Ratio Perm					c0.28							
v/c Ratio		0.28			1.38			0.31			0.75	
Uniform Delay, d1		23.0			87.2			104.0			102.7	
Progression Factor		0.14			1.08			1.00			1.00	
Incremental Delay, d2		0.0			178.0			1.1			24.2	
Delay (s)		3.2			272.2			105.1			126.9	
Level of Service		A			F			F			F	
Approach Delay (s)		3.2			272.2			105.1			126.9	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	168.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	34.5
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	5	98	1623	58	1570
v/c Ratio	0.05	0.56	0.41	0.58	0.35
Control Delay	94.6	26.1	3.5	122.7	3.1
Queue Delay	0.0	0.0	0.3	0.0	0.0
Total Delay	94.6	26.1	3.8	122.7	3.1
Queue Length 50th (ft)	7	0	12	84	98
Queue Length 95th (ft)	24	67	564	142	230
Internal Link Dist (ft)	173		608		231
Turn Bay Length (ft)				200	
Base Capacity (vph)	217	280	3980	136	4454
Starvation Cap Reductn	0	0	1469	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.35	0.65	0.43	0.35

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	90	1491	2	53	1444
Future Volume (vph)	5	90	1491	2	53	1444
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.0	8.0	8.0		8.0	8.0
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	5084		1770	5085
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	5084		1770	5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	98	1621	2	58	1570
RTOR Reduction (vph)	0	93	0	0	0	0
Lane Group Flow (vph)	5	5	1623	0	58	1570
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	11.3	11.3	172.2		12.5	192.7
Effective Green, g (s)	11.3	11.3	172.2		12.5	192.7
Actuated g/C Ratio	0.05	0.05	0.78		0.06	0.88
Clearance Time (s)	8.0	8.0	8.0		8.0	8.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	90	81	3979		100	4453
v/s Ratio Prot	0.00		c0.32		c0.03	0.31
v/s Ratio Perm		c0.00				
v/c Ratio	0.06	0.06	0.41		0.58	0.35
Uniform Delay, d1	99.3	99.3	7.6		101.2	2.5
Progression Factor	1.00	1.00	0.38		1.00	1.00
Incremental Delay, d2	0.3	0.3	0.3		7.9	0.2
Delay (s)	99.5	99.6	3.2		109.1	2.7
Level of Service	F	F	A		F	A
Approach Delay (s)	99.6		3.2			6.5
Approach LOS	F		A			A

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

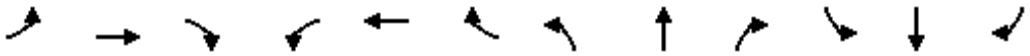
Lane Group	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	109	434	396	31	1124	340	1172
v/c Ratio	0.77	0.76	0.55	0.34	0.60	0.77	0.73
Control Delay	127.1	7.5	7.1	109.9	58.1	109.0	49.7
Queue Delay	0.0	56.1	58.8	0.0	0.0	0.0	0.7
Total Delay	127.1	63.6	65.8	109.9	58.1	109.0	50.4
Queue Length 50th (ft)	156	137	126	44	497	260	746
Queue Length 95th (ft)	#288	m0	m0	87	548	328	583
Internal Link Dist (ft)	420	47			982		608
Turn Bay Length (ft)				190		400	
Base Capacity (vph)	141	581	725	202	1859	471	1616
Starvation Cap Reductn	0	251	419	0	0	0	170
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	1.32	1.29	0.15	0.60	0.72	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	59	15	231	65	500	30	961	118	326	1066	56
Future Volume (vph)	31	59	15	231	65	500	30	961	118	326	1066	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.9			2.5	2.5	4.8	4.8		4.8	4.8	
Lane Util. Factor		1.00			0.95	0.95	1.00	0.91		0.97	0.95	
Frpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.98			0.96	0.85	1.00	0.98		1.00	0.99	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795			1647	1504	1770	5002		3433	3511	
Flt Permitted		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1795			1647	1504	1770	5002		3433	3511	
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	0.90
Adj. Flow (vph)	32	61	16	241	68	521	31	1001	123	340	1110	62
RTOR Reduction (vph)	0	3	0	0	7	203	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	427	193	31	1124	0	340	1172	0
Confl. Peds. (#/hr)			1	1								
Turn Type	Split	NA		Split	NA	Prot	Prot	NA		Prot	NA	
Protected Phases	3	3		4 7 8	4 7 8	4 7 8	5	2		1	6	
Permitted Phases												
Actuated Green, G (s)		15.0			73.4	73.4	8.2	79.7		26.4	97.9	
Effective Green, g (s)		17.0			75.4	75.4	10.2	81.7		28.4	99.9	
Actuated g/C Ratio		0.08			0.34	0.34	0.05	0.37		0.13	0.45	
Clearance Time (s)		6.9					6.8	6.8		6.8	6.8	
Vehicle Extension (s)		3.5					3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		138			564	515	82	1857		443	1594	
v/s Ratio Prot		c0.06			c0.26	0.13	0.02	0.22		c0.10	c0.33	
v/s Ratio Perm												
v/c Ratio		0.77			0.76	0.37	0.38	0.61		0.77	0.74	
Uniform Delay, d1		99.6			64.2	54.5	101.8	56.1		92.6	49.2	
Progression Factor		1.00			0.11	0.58	1.00	1.00		1.05	0.95	
Incremental Delay, d2		23.0			0.7	0.1	2.9	1.5		7.4	2.9	
Delay (s)		122.6			7.5	31.5	104.7	57.5		104.9	49.6	
Level of Service		F			A	C	F	E		F	D	
Approach Delay (s)		122.6			19.0			58.8			62.0	
Approach LOS		F			B			E			E	

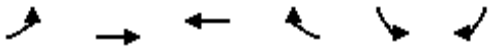
Intersection Summary			
HCM 2000 Control Delay	52.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	220.0	Sum of lost time (s)	30.5
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	396	25	8	600	8	15	1	6	36	0	204
Future Volume (Veh/h)	71	396	25	8	600	8	15	1	6	36	0	204
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.90	0.90	0.92	0.92	0.92	0.90	0.92	0.90
Hourly flow rate (vph)	79	440	27	9	667	9	16	1	7	40	0	227
Pedestrians					2			8			5	
Lane Width (ft)					12.0			12.0			12.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					0			1			0	
Right turn flare (veh)												
Median type		None			TWLTL							
Median storage veh)					2							
Upstream signal (ft)		567			1199							
pX, platoon unblocked				0.90			0.90	0.90	0.90	0.90	0.90	
vC, conflicting volume	681			475			1532	1318	464	1302	1328	676
vC1, stage 1 conf vol							620	620		694	694	
vC2, stage 2 conf vol							912	699		608	633	
vCu, unblocked vol	681			366			1535	1299	353	1281	1309	676
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			99			80	100	99	87	100	50
cM capacity (veh/h)	908			1071			80	295	619	318	320	451

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	79	467	9	676	17	7	267
Volume Left	79	0	9	0	16	0	40
Volume Right	0	27	0	9	0	7	227
cSH	908	1700	1071	1700	84	619	425
Volume to Capacity	0.09	0.27	0.01	0.40	0.20	0.01	0.63
Queue Length 95th (ft)	7	0	1	0	18	1	105
Control Delay (s)	9.3	0.0	8.4	0.0	58.6	10.9	26.8
Lane LOS	A		A		F	B	D
Approach Delay (s)	1.4		0.1		44.7		26.8
Approach LOS					E		D

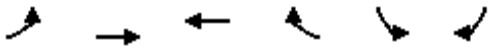
Intersection Summary				
Average Delay	5.9			
Intersection Capacity Utilization	67.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	401	548	27	61	73
Future Volume (Veh/h)	36	401	548	27	61	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	40	446	609	30	68	81
Pedestrians		1			6	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			1	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		857	909			
pX, platoon unblocked					0.91	
vC, conflicting volume	645				1156	631
vC1, stage 1 conf vol					630	
vC2, stage 2 conf vol					526	
vCu, unblocked vol	645				1122	631
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	96				84	83
cM capacity (veh/h)	935				421	478

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	40	446	639	149
Volume Left	40	0	0	68
Volume Right	0	0	30	81
cSH	935	1700	1700	450
Volume to Capacity	0.04	0.26	0.38	0.33
Queue Length 95th (ft)	3	0	0	36
Control Delay (s)	9.0	0.0	0.0	16.9
Lane LOS	A			C
Approach Delay (s)	0.7		0.0	16.9
Approach LOS				C

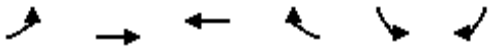
Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	454	553	8	21	23
Future Volume (Veh/h)	9	454	553	8	21	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	504	614	9	23	26
Pedestrians			1		8	
Lane Width (ft)			12.0		12.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			0		1	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)		1145	621			
pX, platoon unblocked					0.91	
vC, conflicting volume	631				1152	626
vC1, stage 1 conf vol					626	
vC2, stage 2 conf vol					525	
vCu, unblocked vol	631				1119	626
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				95	95
cM capacity (veh/h)	945				429	481

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	10	504	623	49
Volume Left	10	0	0	23
Volume Right	0	0	9	26
cSH	945	1700	1700	455
Volume to Capacity	0.01	0.30	0.37	0.11
Queue Length 95th (ft)	1	0	0	9
Control Delay (s)	8.8	0.0	0.0	13.9
Lane LOS	A			B
Approach Delay (s)	0.2		0.0	13.9
Approach LOS				B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	39.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	454	439	38	101	120
Future Volume (Veh/h)	21	454	439	38	101	120
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	23	504	488	42	112	133
Pedestrians		1			3	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		4.0			4.0	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)			307			
pX, platoon unblocked	1.00				1.00	1.00
vC, conflicting volume	533				1062	513
vC1, stage 1 conf vol					512	
vC2, stage 2 conf vol					550	
vCu, unblocked vol	533				1062	513
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				75	76
cM capacity (veh/h)	1032				457	559

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	23	504	530	245
Volume Left	23	0	0	112
Volume Right	0	0	42	133
cSH	1032	1700	1700	507
Volume to Capacity	0.02	0.30	0.31	0.48
Queue Length 95th (ft)	2	0	0	65
Control Delay (s)	8.6	0.0	0.0	18.5
Lane LOS	A			C
Approach Delay (s)	0.4		0.0	18.5
Approach LOS				C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		