WELLS + ASSOCIATES

ONE UNIVERSITY

TRAFFIC IMPACT STUDY

November 16, 2018

ONE UNIVERSITY

Traffic Impact Study

Fairfax County, Virginia

November 16, 2018

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SECTION 1
INTRODUCTION

Study Scope

This report presents a Traffic Impact Study (TIS) for the One University project in the Braddock District of Fairfax County, Virginia. The site is located on the north side of University Drive between Chancery Park Drive to the west and Ox Road (VA 123) to the east. The property is zoned PDH-5 and R-1 and is occupied by an existing office building, 46 affordable residential dwelling units (DU), and surface parking. Access is currently provided via five (5) curb cuts along University Drive.

The Applicants, SCG and RISE, is seeking to rezone the subject site and raze the existing uses and redevelop the site with three (3) residential buildings. From the west side to the east side of the property, a 100 affordable DU senior building, a 140 affordable DU building, and a 360 DU student housing building is proposed. Parking for the site would be provided in a combination of surface and structured. Access would be provided via two (2) of the existing curb-cuts thus resulting in the closure of three (3) curb cuts.

The scope of this traffic study was established in consultation with Fairfax County Department of Transportation (FCDOT) and Virginia Department of Transportation (VDOT). It includes an evaluation of existing 2018 conditions as well as future 2022 traffic conditions without and with the proposed development. Additionally, the study includes an analysis of 2040 design year conditions. A copy of the agreed scope is included in Appendix A.

Development proposals within Fairfax County are subject to the published *Requirements Regarding Traffic Impact Analysis Submittals*. In addition, as of July 2012, a project that is expected to generate more than 5,000 daily (24-hour) trips over existing entitlements would trigger a Chapter 870 traffic study and review by VDOT. Therefore, a trip generation compliance letter should be submitted to FCDOT for determination prior to a formal traffic study scoping meeting with FCDOT and VDOT staff. Based on our estimates, this development would not trigger a full Chapter 870 review as shown in the compliance letter contained in Appendix B.

Purpose

The purpose of this traffic study is to evaluate the potential impacts of the proposed redevelopment on the surrounding and adjacent transportation network and, where necessary, identify potential mitigation measures to mitigate possible impacts. For purposes of this study, a four-year horizon period (year 2022) was analyzed.

This study was conducted in accordance with both Fairfax County's *"Recommended Contents of Traffic Impact Studies"* and the VDOT T*raffic Impact Analysis Regulations Administrative Guidelines 24 VAC 30-155*. As mentioned previously, a formal scoping meeting was held with FCDOT and VDOT. A copy of the agreed upon scoping document is in Appendix A.

Study Objective/Methodology

Tasks undertaken in this study included the following:

- Confirmed the traffic study scope (Appendix A) and parameters from the Fairfax County Department of Transportation (FCDOT) and Virginia Department of Transportation (VDOT) that must be addressed in this study.

- Reviewed the proposed development plans, development schedule, parking plans, and other background materials.

- Completed a field reconnaissance of the subject site, adjacent properties, surrounding public roadways, and traffic conditions.

- Collected AM and PM peak period traffic, pedestrian, and bicycle counts on a typical weekday from 6:00 to 9:00 AM and from 4:00 to 7:00 PM at key off-site intersections. Collected 13-hour counts (6:00 AM to 7:00 PM) at the University Drive/Ox Road intersection.

- Obtained existing traffic signal phasing/timing plans and electronic analysis files from VDOT and City of Fairfax.

- Compiled an inventory of transit services and other non-auto facilities in the site vicinity.

- Calculated the existing 2018 conditions AM and PM peak hour levels of service and 50th and 95th percentile queues at study intersections.

- Identified the near-term background traffic volumes for the study area based on the existing traffic counts, ambient traffic growth, and unbuilt developments (pipeline developments) adjacent to the site.

- Estimated the number of AM and PM peak hour trips generated by the pipeline developments and the proposed development based on standard Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition rates and equations and the respective development's traffic impact studies.

- Calculated future intersection levels of service and 50th and 95th percentile queues in 2022 without and with the proposed development.

- Identified potential traffic operations and road improvements required to adequately accommodate total future traffic forecasts in 2022.

- Calculated future intersection levels of service and 50th and 95th percentile queues in 2040 with the proposed development.

Sources of data for this assessment include SCG, RISE, Urban, Niles Bolton, McGuire Woods, The Institute of Transportation Engineers (ITE), VDOT, Fairfax County, the Washington Metropolitan Area Transit Authority (WMATA), and traffic counts conducted by Wells + Associates, Inc. (W+A).

Study Area

This traffic study includes the following existing and planned intersections as agreed to with FCDOT and VDOT staff through the scoping process as listed below. The study area includes intersections within Fairfax County and the City of Fairfax. The traffic impacts were evaluated at these intersections for existing conditions (2018), future conditions (2022) without development, future conditions (2022) with development, and design year (2040) future conditions with development.

1. School Street/Ox Road
2. University Drive/Santa Clara Drive
3. University Drive/Chancery Park Drive
4. University Drive/Site Driveways (5)
5. University Drive/Ox Road
6. University Drive/George Mason Boulevard
7. Braddock Road/Ox Road

SECTION 2
BACKGROUND INFORMATION

Description of Proposed Development

The Applicant (RISE & SCG) proposes to redevelop the existing 46 residential units and 16,689 SF of office into 100 age-restricted affordable (62 years+) DU, 140 affordable housing DU, 362 DU and student housing building. The site is located within the Fairfax Planning District, specifically the George Mason Community Planning Sector, of the Fairfax County Comprehensive Plan. This planning sector is primarily composed of land owned by George Mason University (GMU) and established residential neighborhoods.

The subject property is bounded by primarily residential development to the west, north, and east sides. To the south of the site are the George Mason University athletic facilities. The site is located on the border between Fairfax County and the City of Fairfax. Development located north of the site falls within the City of Fairfax limits while south is located in Fairfax County. The site is immediately adjacent to the GMU campus and within walking distance of downtown Fairfax.

For purposes of this study, the development was assumed to be built and occupied by 2022.

Site Location

The subject site is bounded by University Drive to the south and Ox Road to the east, as shown in Figure 2-1. Access to the existing office uses is provided via the one (1) westernmost curb cut along University Drive. Access to the existing residential uses is provided via four (4) curb cuts to the east of the office along University Drive.

Description of Parcel

The subject site consists of two (2) parcels totaling approximately 10.77 acres. These parcels are identified as Tax Map Number 57-3 ((1)) 11A and 11B and 57-4((1)2B. The property is currently zoned PDH-5 and R-1. As proposed, the site would be rezoned to PRM (Planned Residential Mixed Use). A site plan reduction is shown on Figure 2-2.

Fairfax County Comprehensive Plan

As noted previously, the subject site is located within the Fairfax Planning District of Area II of the Fairfax County Comprehensive Plan. More specifically, the site is located within the George Mason Community Planning Sector. The George Mason Community Planning sector is located between the southwestern boundary of the City of Fairfax, Roberts Road, Braddock Road, and Shirley Gate Road.

The subject property is planned for public facilities, institutional, and governmental per the Plan map.

Roadway Network

Regional access to the site area is provided via the Ox Road (VA 123), Braddock Road (VA 620), Main Street (VA 236), Fairfax Boulevard (US 50), and Lee Highway (US 29). Local access is provided via University Drive from the signalized intersection at Ox Road located to the east of the site. Below provides a summary of the roadways that serve the site.

Ox Road (VA 123) is a four (4) lane north-south Principal Arterial roadway within the vicinity of the site and has a posted speed limit of 30 mph to the north of University Drive and 45 mph to the south of University Drive. Ox Road is a major north-south route through Fairfax County running from the George Washington Memorial Parkway to the north to Jefferson Davis Highway (US 1) in Prince William County to the south.

Signalized intersections nearby the site along Ox Road include School Street, University Drive, and Braddock Road. VDOT data shows that Ox Road within the vicinity of the site carried approximately 28,000 vehicles per day (vpd) in 2017.

Braddock Road (VA 620) is a four (4) lane east-west Minor Arterial roadway in the vicinity of the site with a posted speed limit of 45 mph. Braddock runs from Columbia Pike (VA 244) to the east and James Monroe Highway (US 15) in Loudoun County to the west. VDOT data shows that Braddock Road within the vicinity of the site carried approximately 47,000 vpd in 2017.

University Drive is a two (2) lane east-west Local street along the sites frontage and classified as a Major Collector east of Ox Road to George Mason Boulevard. University Drive has a posted speed limit of 25 mph and runs from Santa Clara Drive to the west to Patriot Drive to the east. VDOT data shows that University Drive within the vicinity of the site carried approximately 2,200 vpd in 2017.

Santa Clara Drive is a two (2) lane north-south Local street west of the site and has a posted speed limit of 25 mph. Santa Clara Drive runs from Andes Drive to Bellavia Lane and connects to University Drive.

Chancery Park Drive is a two (2) lane north-south Local street west of the site and has a speed limit of 25 mph. Chancery Park Drive runs from University Drive to Amnesty Place and connects to School Street.

Refer to Figure 2-3 for the existing lane use and traffic controls at the study intersections.

Planned/Programmed Improvements

The Fairfax County Comprehensive Transportation Plan indicates that several capital improvement projects are planned for roadways nearby the subject site. Braddock Road and Ox Road are planned to be widened west and south of the Ox Road/Braddock Road intersection to carry six (6) travel lanes. Recently, capacity improvements were made at the signalized

intersection of Braddock Road/Ox Road which include the construction of dual left-turn lanes in the eastbound direction on Braddock Road and in the northbound and southbound directions on Ox Road.

The Fairfax County Comprehensive Transportation Plan identifies the potential for future interchange improvements at the Ox Road/Braddock Road intersection. Prior to construction, Fairfax County and/or VDOT would likely conduct an interchange study to determine the ultimate configuration to accommodate expected future traffic volumes as Fairfax County continues to grow in population. The Comprehensive Plan transportation recommendations are shown in Figure 2-4.

The above noted improvements were not included in the analysis since funding is not in place. The interchange and widening still require additional right-of-way to build the future planned interchange and accommodate roadway widening.

Multimodal Facilities

The subject site is served by a multitude of transportation alternatives and located within an area of the county adjacent to George Mason University and the City of Fairfax, both very conducive to multimodal transportation modes. The following sections describe the various alternative transportation infrastructure in place. Figure 2-5 shows the multimodal facilities nearby the site.

Transit Services

Numerous bus routes, including CUE and Metrobuses, provide service to the site within ¼ mile walking distance. Below provides a summary of the bus routes within close proximity of the subject site. A copy of each routes' service and schedule is provided in Appendix C.

CUE Bus Green Route 1 has stops located approximately within a ¼ mile distance of the site along Ox Road/Chain Bridge Road, University Drive and on the George Mason Campus. This route operates in a loop beginning and ending at the Vienna/Fairfax-GMU Metrorail Station in a clockwise direction though the City of Fairfax. It runs primarily along Nutley Street, Arlington Boulevard, Fairfax Boulevard, Chain Bridge Road, Main Street and Picket Road. This route operates on weekdays and weekends with approximately 7 to 12-minute headways

CUE Bus Green Route 2 has stops located approximately within a ¼ mile distance of the site along Ox Road/Chain Bridge Road, University Drive and on the George Mason Campus. This route operates in a loop beginning and ending at the Vienna/Fairfax-GMU Metrorail Station in a counterclockwise direction though the City of Fairfax. It runs primarily along Nutley Street, Arlington Boulevard, Fairfax Boulevard, Chain Bridge Road, Main Street and Picket Road. This route operates on weekdays and weekends with approximately 7 to 13-minute headways.

CUE Bus Gold Route 1 has stops located approximately within a ¼ mile distance of the site along Ox Road/Chain Bridge Road, University Drive and on the George Mason Campus. This route operates in a loop beginning and ending at the Vienna/Fairfax-GMU Metrorail Station in a

clockwise direction though the City of Fairfax. It runs primarily along Burke Lane, Fairfax Boulevard, Jermantown Road, Main Street, Chain Bridge Road, George Mason Boulevard, and Old Lee Highway. This route operates on weekdays and weekends with approximately 6 to 15-minute headways.

CUE Bus Gold Route 2 has stops located approximately within a ¼ mile distance of the site along Ox Road/Chain Bridge Road, University Drive and on the George Mason Campus. This route operates in a loop beginning and ending at the Vienna/Fairfax-GMU Metrorail Station Highway in a counterclockwise direction though the City of Fairfax. It runs primarily along Burke Lane, Fairfax Boulevard, Jermantown Road, Main Street, Chain Bridge Road, George Mason Boulevard, and Old Lee. This route operates on weekdays and weekends with approximately 5 to 16-minute headways.

WMATA Metrobus 17G (Kings Park Express Line) has stops located approximately ¼ mile east of the site along Ox Road and University Drive. This route operates between the Pentagon Metrorail Station and George Mason University. It runs primarily along Interstate 395, Interstate 495 and Braddock Road. This route operates on weekdays with approximately 5 to 18 minutes headways in the mornings and 4 to 19 minute headways in the evening.

WMATA Metrobus 29K (Alexandria-Fairfax Line) has stops located approximately ¼ mile east of the site along Ox Road and University Drive. This route operates between George Mason University and King St-Old Town Metrorail Station. It runs primarily along Duke Street, Little River Turnpike, Main Street and Chain Bridge Road. This route operates on weekdays and weekends with approximately 10 minutes headways in the morning and evening.

In addition to the above described public bus routes, GMU operates numerous shuttles that provide students and faculty with alternative transit options.

Pedestrian and Bicycle Facilities

The subject site, as noted previously, is located adjacent to George Mason University and nearby the City of Fairfax. Pedestrian facilities currently exist in the vicinity of the site including a connected network of sidewalks, marked crosswalks, and pedestrian signal countdown heads. Safe pedestrian routes exist between the site and both GMU and attractions within the City of Fairfax.

Dedicated bicycle lanes exist along University Drive east of the George Mason Boulevard intersection. The connected network of trails and streets nearby the site provide cyclists routes to/from George Mason University and the City of Fairfax.

The subject site is well served by numerous alternative transportation modes. The well-connected pedestrian network, bicycle facilities, numerous public bus routes and shuttle operations serving the GMU campus provide safe and easy alternative transportation options. This in turn will encourage a high non-auto mode share for the residents of the site.

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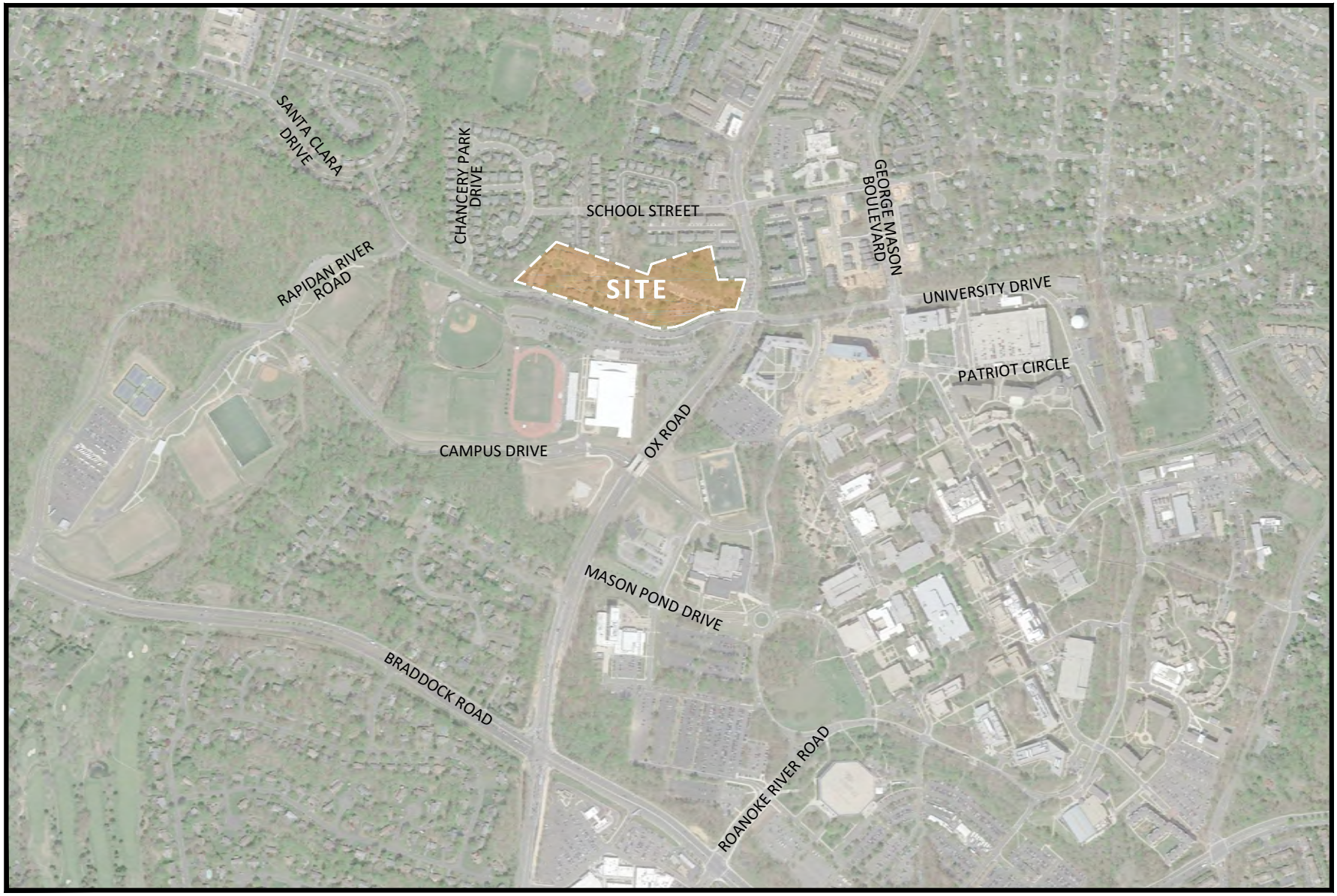

Figure 2-1
Site Location

NORTH

One University
Fairfax County, Virginia

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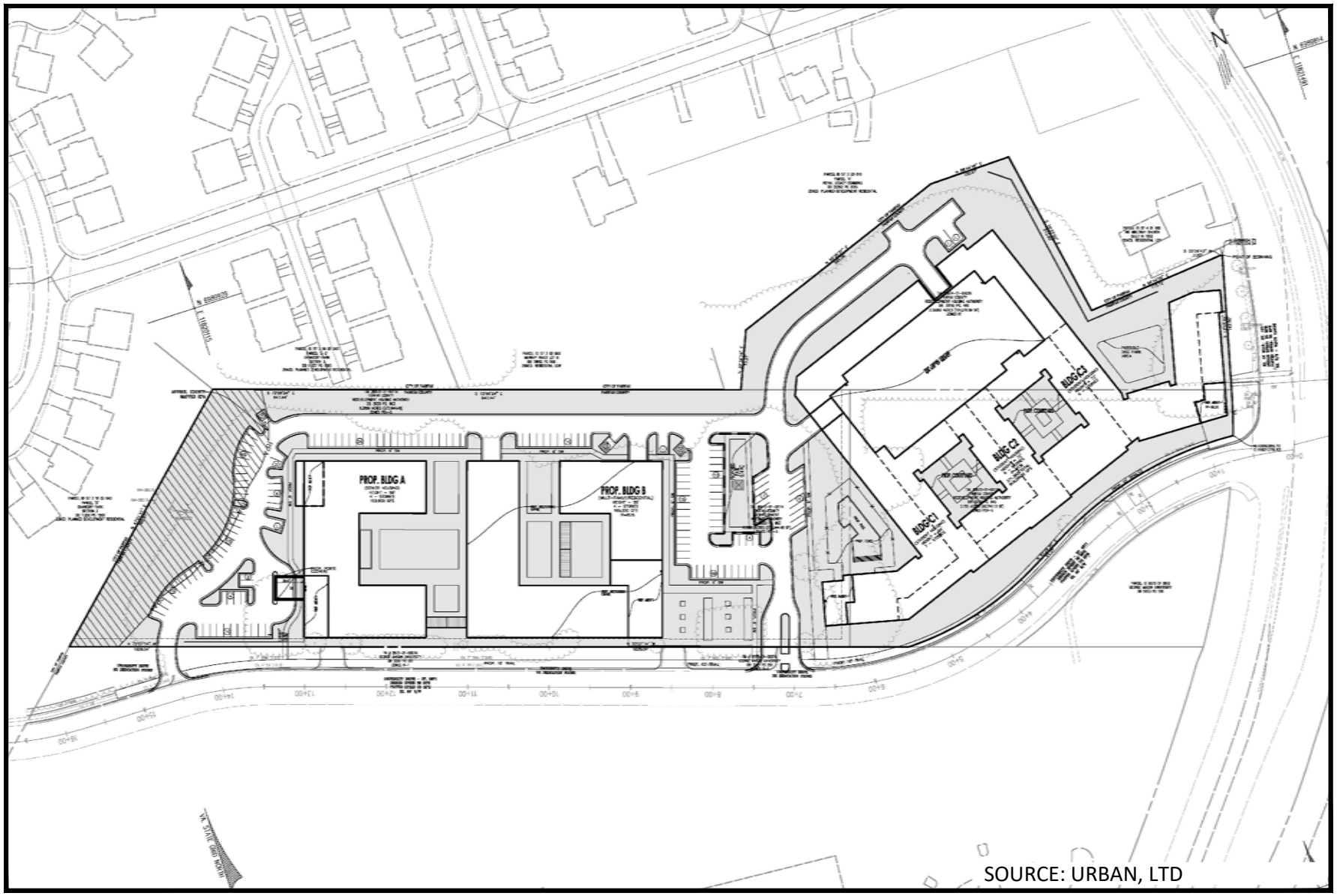

SOURCE: URBAN, LTD

Figure 2-2
Conceptual Site Plan

NORTH

One University
Fairfax County, Virginia

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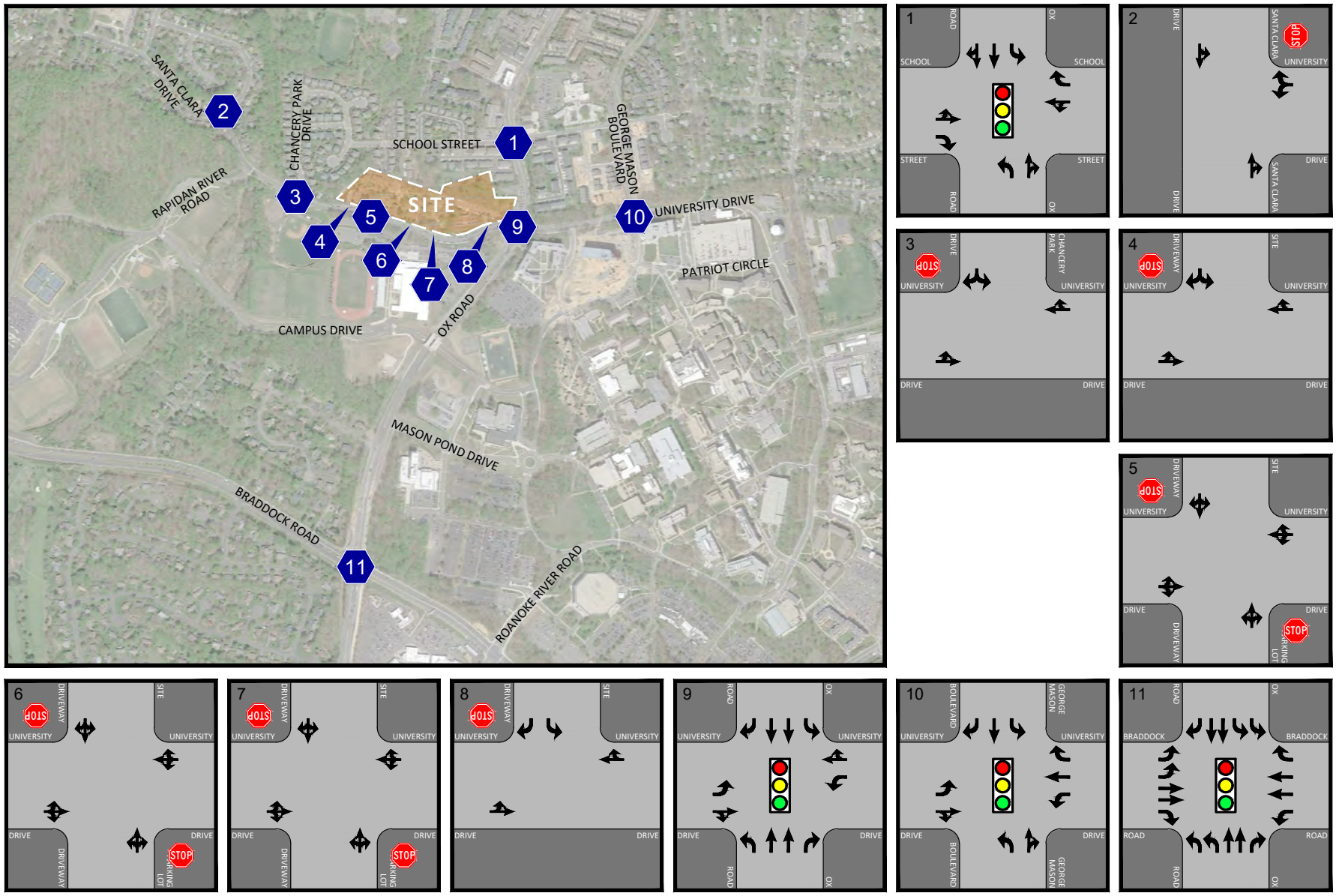

Figure 2-3

Existing Lane Use and Traffic Controls

Represents One Travel Lane

Signalized Intersection

Stop Sign

NORTH

One University

Fairfax County, Virginia

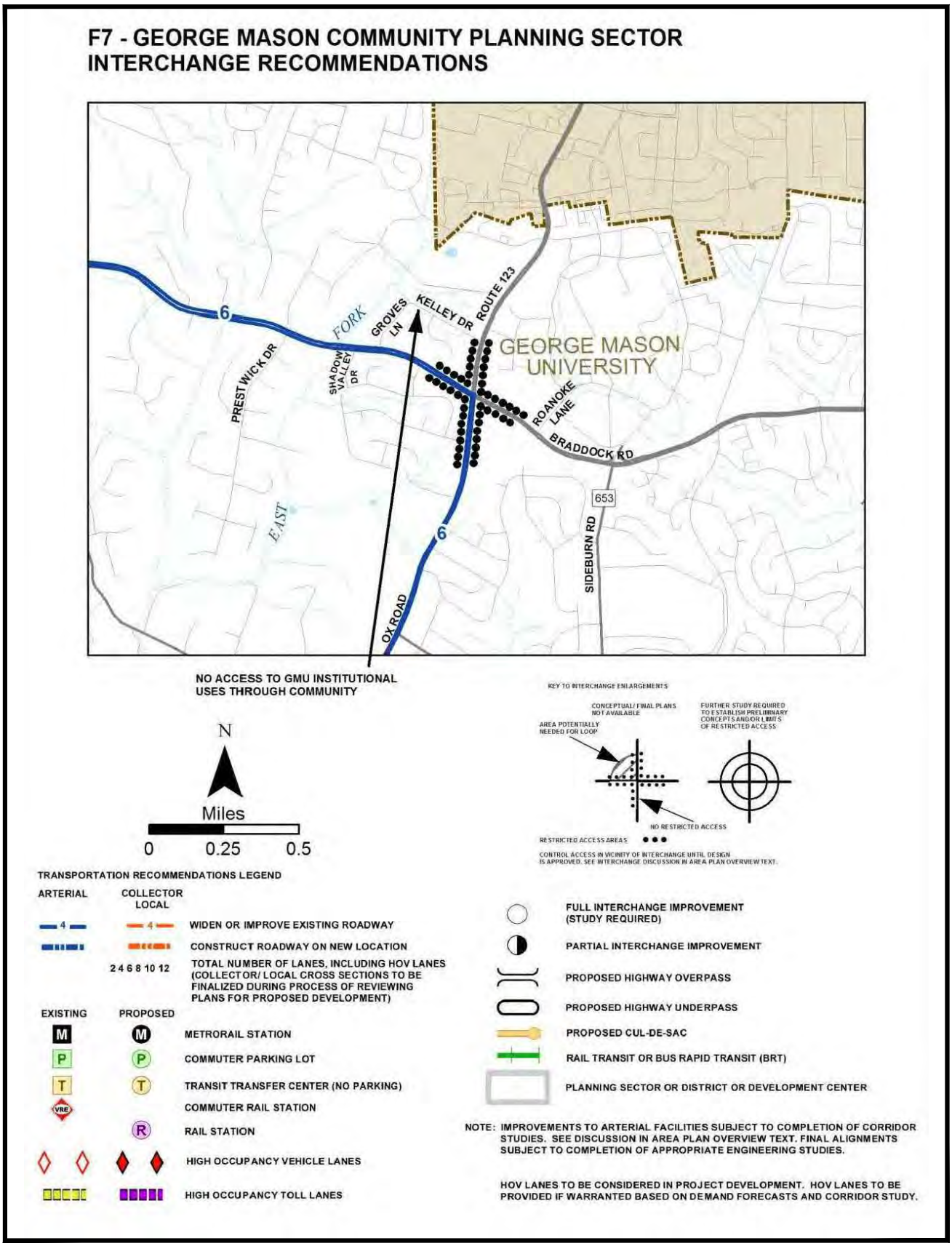

Figure 2-4
Fairfax County Comprehensive Plan Transportation Improvements

NORTH
One University
Fairfax County, Virginia

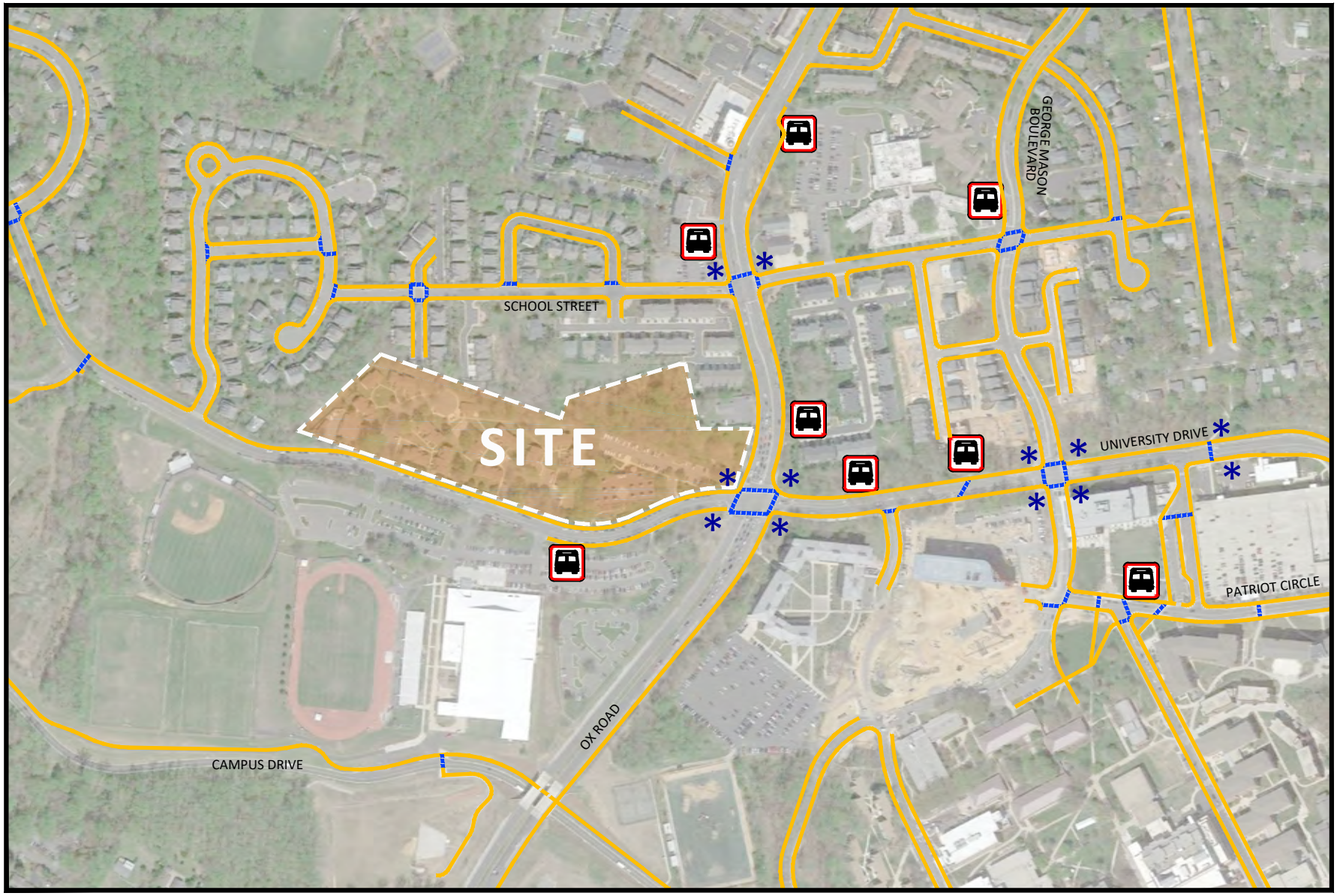

Figure 2-5
Multimodal Facilities

Sidewalk
Pedestrian Crosswalk
Pedestrian Signal Head
Bus Stop

NORTH

One University
Fairfax County, Virginia

SECTION 3
ANALYSIS OF EXISTING (2018) CONDITIONS

Traffic Volumes

Wells + Associates collected vehicular, pedestrian, and bicycle counts on Tuesday, November 14, 2017, from 6:00 to 9:00 AM and 4:00 to 7:00 PM at the following intersections:

School Street/Ox Road
University Drive/Site Driveways (5)
University Drive/George Mason Boulevard
Braddock Road/Ox Road

Vehicular, pedestrian, and bicycles counts were collected on Wednesday October 24, 2018, from 6:00 to 9:00 AM and 4:00 to 7:00 PM at the following intersections:

University Drive/Santa Clara Drive
University Drive/Chancery Park Drive
Braddock Road/Ox Road

For purposes of the analysis, individual peak hours were used at the three (3) signalized study intersections and the peak hour at the Ox Road/University Drive was selected for all driveways along University Drive to be conservative. Traffic volumes at site driveways along University Drive were balanced using the Ox Road/University Drive intersection. All other intersection traffic volumes were balanced within 10 percent, where appropriate, to account for the presence of driveways and other variances.

To account for some of the traffic counts being collected in 2017, a one percent growth rate was applied to all through movements along Ox Road and all movements at the Braddock Road/Ox Road intersection for a one year period to arrive at 2018 volumes. The 2017 peak hour traffic volumes are shown on Figure 3-1 and growth to 2018 is shown on Figure 3-2.

The resulting baseline peak hour traffic volumes for the study intersections are summarized on Figure 3-3, the existing pedestrian volumes are shown on Figure 3-4, and the existing bicycle volumes are shown on Figure 3-5. The detailed count worksheets are included in Appendix D.

Operational Analysis

Existing peak hour Levels of Service (LOS) and the 50th and 95th percentile queues were estimated at the study intersections based on the existing lane use and traffic controls shown on Figure 2-3, baseline peak hour traffic volumes shown on Figure 3-3, the existing traffic signal timings obtained from VDOT and City of Fairfax, and the Highway Capacity Manual (HCM) 2010 methodologies, as reported by Synchro version 10, when available. It is noted that the intersection of School Street and Ox Road was unable to produce results utilizing HCM

Methodologies. Results at this location were calculated based on HCM 2000 methodologies. The base Synchro files provided by VDOT were reviewed and modified to account for on-street maneuvers and pedestrian calls. Additionally, peak hour factors (PHF) of 0.85 or higher were utilized based on the existing peak hour traffic counts.

Level of Service. The existing LOS results are summarized in Table 3-1 and indicate the following:

- The signalized intersection of Ox Road/School Street currently operates at overall acceptable levels of service (LOS "D" or better) during both the AM and PM peak hours. The westbound shared left-through, westbound right turn, eastbound left-through, and eastbound right turn movements all operate at capacity (LOS "E") during the AM peak hour. All other movements at this intersection would operate within acceptable LOS thresholds during both the AM and PM peak hours.

  The signalized intersection of Ox Road/University Drive currently operates at an overall acceptable level of service (LOS "D" or better) during the AM peak hour and at capacity (LOS "E") during the PM peak hour. The eastbound shared through-right and southbound left operates at capacity (LOS "E") during the AM peak hour. The eastbound through-right and westbound left operate beyond capacity (LOS "F") during the PM peak hour. All other movements at this intersection operate within acceptable LOS thresholds during both the AM and PM peak hours.

  Field observations at this intersection confirm that the eastbound approach has operational issues. This is in part due to a majority of the green time being allocated to mainline Ox Road and the heavy pedestrian crossings occurring on the south leg of this intersection. While pedestrians are present in the crosswalks right-turning vehicles are forced to yield, thus significantly reducing capacity.

- The signalized intersection of George Mason Boulevard/University Drive currently operates at overall acceptable level of service (LOS "D" or better) during both the AM and PM peak hours. All individual movements would also operate at acceptable levels of service during both the AM and PM peak hours.

- The signalized intersection of Ox Road/Braddock Road currently operates at capacity (LOS "E") during the AM and PM peak hours. All movements of the intersection, with the exception of the eastbound through, eastbound right, westbound right, northbound right and southbound through operate at or beyond capacity (LOS "E" or "F") during the AM peak hour. During the PM peak hour, all movements with the exception of the westbound right, northbound through and northbound right operate at or beyond capacity (LOS "E" or "F").

  As mentioned previously, recent upgrades have occurred at this intersection including additional lanes and turn-bay storage lengthening in an effort to improve the intersection operation. Ultimately, the Comprehensive Transportation Plan identifies this intersection to be upgraded to a grade-separated interchange.

- The stop-controlled intersections of Santa Clara Drive/University Drive and Chancery Park Drive/University Drive both operate at LOS "A" and "B" during the peak periods.

- The stop-controlled site driveway/University Drive intersections all operate at acceptable levels of service (LOS "D" or better) during both the AM and PM peak hours with minimal delay occurring.

Queues. The 50th and 95th percentile queues of existing conditions are used to establish a datum against which to compare future conditions. The 50th percentile (or average) queue is defined as the maximum back of queue associated with a typical signal cycle. The 95th percentile queue is defined as the maximum back of queue with 95th percentile traffic volumes. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations[1]. The existing storage lengths provided in the VDOT Synchro files were reviewed using Google Earth Imagery.

As shown on Table 3-2, the northbound right and southbound left turn queues at the University Drive/Ox Road intersection are expected to exceed available storage during the AM peak hour. The northbound left-turn queues at this intersection are expected to exceed available storage during the PM peak hour. Queueing issues are also experienced at a few turn lanes at the Braddock Road/Ox Road intersection during both the AM and PM peak hours. Notably the northbound left-turn in the AM peak hour and eastbound right-turn in the PM peak hour exceed available storage. Additional turn lane storage bays may be exceeded as well but are not shown on the table due to oversaturated conditions and traffic signal metering. Detailed synchro worksheets are provided in Appendix E.

[1] Synchro Studio 10, Traffic Signal Software – User Guide

Table 3-1
One University
Existing Conditions Intersection Level of Service Summary

Approach/ Lane Group	Existing Conditions (2018)			
	AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)
1. School Street & Ox Road/Chain Bridge Road - Signalized				
EBLT	E	63.1	D	50.0
EBR	E	58.6	D	48.9
WBLT	E	61.9	D	52.6
WBR	E	58.7	D	49.1
NBL	A	2.8	A	7.2
NBTR	A	6.0	A	8.7
SBL	A	3.1	A	5.0
SBTR	A	3.9	B	11.0
Overall	**A**	**8.9**	**B**	**12.8**
2. Santa Clara Drive/University Drive - Unsignalized				
WBLR	A	9.8	B	10.7
NBTR	A	0.0	A	0.0
SBLT	A	7.6	A	7.5
3. Chancery Park Drive/University Drive - Unsignalized				
EBLT	A	7.6	A	8.0
WBTR	A	0.0	A	0.0
SBLR	B	10.1	B	11.2
4. West Driveway & University Drive - Unsignalized				
EBLTR	A	0.0	A	0.0
WBLTR	A	0.0	A	0.0
SBLR	A	0.0	A	0.0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized				
EBLTR	A	7.5	A	7.7
WBLTR	A	7.5	A	7.5
NBLTR	B	10.3	A	9.6
SBLTR	B	10.2	B	11.6
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized				
EBLTR	A	0.0	A	7.7
WBLTR	A	7.5	A	7.6
NBLTR	A	9.2	A	9.5
SBLTR	B	11.1	B	10.6
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized				
EBLTR	A	0.0	A	7.7
WBLTR	A	7.8	A	7.8
NBLTR	A	9.3	B	10.0
SBLTR	C	15.4	B	10.8
8. University Plaza & Universiy Drive - Unsignalized				
EBLTR	A	7.9	A	0.0
WBLTR	A	0.0	A	0.0
SBLTR	B	11.6	B	13.5
9. University Drive & Ox Road - Signalized				
EBL	D	45.7	D	47.5
EBTR	E	57.0	F	102.7
WBL	D	43.1	F	123.7
WBTR	D	47.6	D	38.6
NBL	C	25.1	D	39.7
NBT	D	54.2	D	40.1
NBR	D	47.0	D	38.4
SBL	E	69.3	C	29.2
SBT	C	24.7	D	49.7
SBR	C	21.9	C	32.2
Overall	**D**	**47.3**	**E**	**58.3**
10. George Mason Boulevard & University Drive - Signalized				
EBL	B	13.4	B	13.3
EBTR	B	18.9	B	17.7
WBL	B	16.7	B	15.2
WBT	B	19.8	C	20.6
WBR	B	13.9	B	14.6
NBL	B	16.2	B	14.6
NBTR	C	20.3	C	20.6
SBL	B	13.8	B	14.2
SBT	B	17.8	B	19.1
SBR	B	11.3	B	13.7
Overall	**B**	**16.3**	**B**	**16.7**
11. Braddock Road & Ox Road - Signalized				
EBL	E	68.7	F	80.5
EBT	D	54.5	F	86.2
EBR	A	4.9	F	95.9
WBL	E	72.3	E	79.5
WBT	E	55.2	E	67.3
WBR	C	29.7	C	22.6
NBL	F	111.5	F	82.8
NBT	F	136.6	D	51.2
NBR	C	22.8	B	19.1
SBL	F	84.0	E	78.8
SBT	D	54.0	F	92.9
SBR	E	77.9	E	64.8
Overall	**E**	**78.6**	**E**	**76.5**

Notes:
1. Capacity analysis based on Highway Capacity Manual methodology, using Synchro 10.

Table 3-2
One University
Existing Conditions Intersection Queuing Summary

Approach/ Lane Group	Storage Length (ft)	Existing Conditions (2018)			
		AM Peak Hour		PM Peak Hour	
		50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile
1. School Street & Ox Road/Chain Bridge Road - Signalized					
EBLT	-	51	89	24	47
EBR	-	0	0	0	0
WBLT	-	31	66	64	99
WBR	-	0	0	0	0
NBL	150	0	2	3	12
NBTR	-	203	297	145	235
SBL	100	3	10	6	19
SBTR	-	49	124	220	502
2. Santa Clara Drive/University Drive - Unsignalized					
WBLR	-	-	15	-	25
NBTR	-	-	-	-	-
SBLT	-	-	0	-	3
3. Chancery Park Drive/University Drive - Unsignalized					
EBLT	-	-	0	-	0
WBTR	-	-	0	-	0
SBLR	-	-	0	-	3
4. West Driveway & University Drive - Unsignalized					
EBLTR	-	-	0	-	0
WBLTR	-	-	0	-	0
SBLR	-	-	0	-	0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized					
EBLTR	-	-	0	-	0
WBLTR	-	-	0	-	0
NBLTR	-	-	0	-	3
SBLTR	-	-	3	-	0
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized					
EBLTR	-	-	0	-	0
WBLTR	-	-	0	-	0
NBLTR	-	-	0	-	3
SBLTR	-	-	0	-	0
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized					
EBLTR	-	-	0	-	0
WBLTR	-	-	8	-	3
NBLTR	-	-	5	-	10
SBLTR	-	-	3	-	0
8. University Plaza & Universiy Drive - Unsignalized					
EBLTR	-	-	0	-	0
WBLTR	-	-	0	-	0
SBLTR	-	-	0	-	0
9. University Drive & Ox Road - Signalized					
EBL	-	39	69	31	56
EBTR	-	154	229	198	288
WBL	-	115	165	363	#506
WBTR	160	60	110	118	178
NBL	170	92	142	118	202
NBT	-	742	#922	276	336
NBR	250	221	365	0	0
SBL	420	350	#503	113	166
SBT	-	180	225	618	725
SBR	120	0	0	0	0
10. George Mason Boulevard & University Drive - Signalized					
EBL	820	43	114	26	60
EBTR	-	76	236	32	96
WBL	330	3	14	6	20
WBT	-	24	68	60	125
WBR	300	0	14	0	28
NBL	-	7	21	15	37
NBTR	-	24	58	48	104
SBL	300	47	87	32	69
SBT	-	37	93	52	108
SBR	300	0	16	0	29
11. Braddock Road & Ox Road - Signalized					
EBL	715	111	143	74	110
EBT	-	647	689	~742	#883
EBR	675	0	16	~711	#1022
WBL	470	52	101	276	#430
WBT	-	574	#766	~1005	#1185
WBR	-	37	95	20	53
NBL	380	~372	#499	193	252
NBT	-	~793	#934	253	324
NBR	320	0	1	0	34
SBL	400	78	#121	63	m73
SBT	-	138	177	~521	m#637
SBR	300	0	36	120	m152

Notes:
1. ~ Volume exceeds capacity, queue is theoretically infinite.
2. # 95th percentile volume exceeds capacity, queue may be longer.

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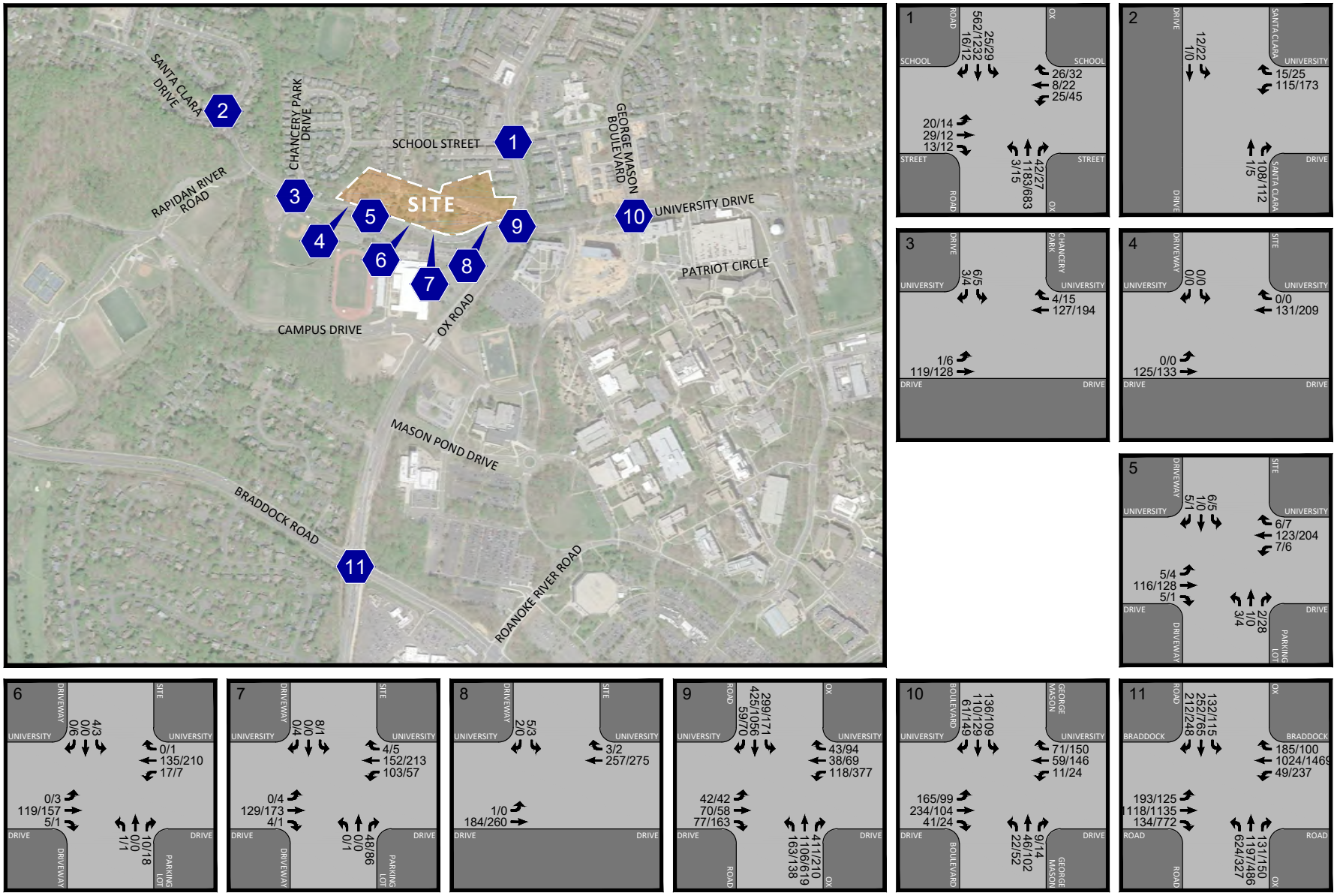

Figure 3-1

Existing Peak Hour Vehicular Traffic Volumes (2017 & 2018)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

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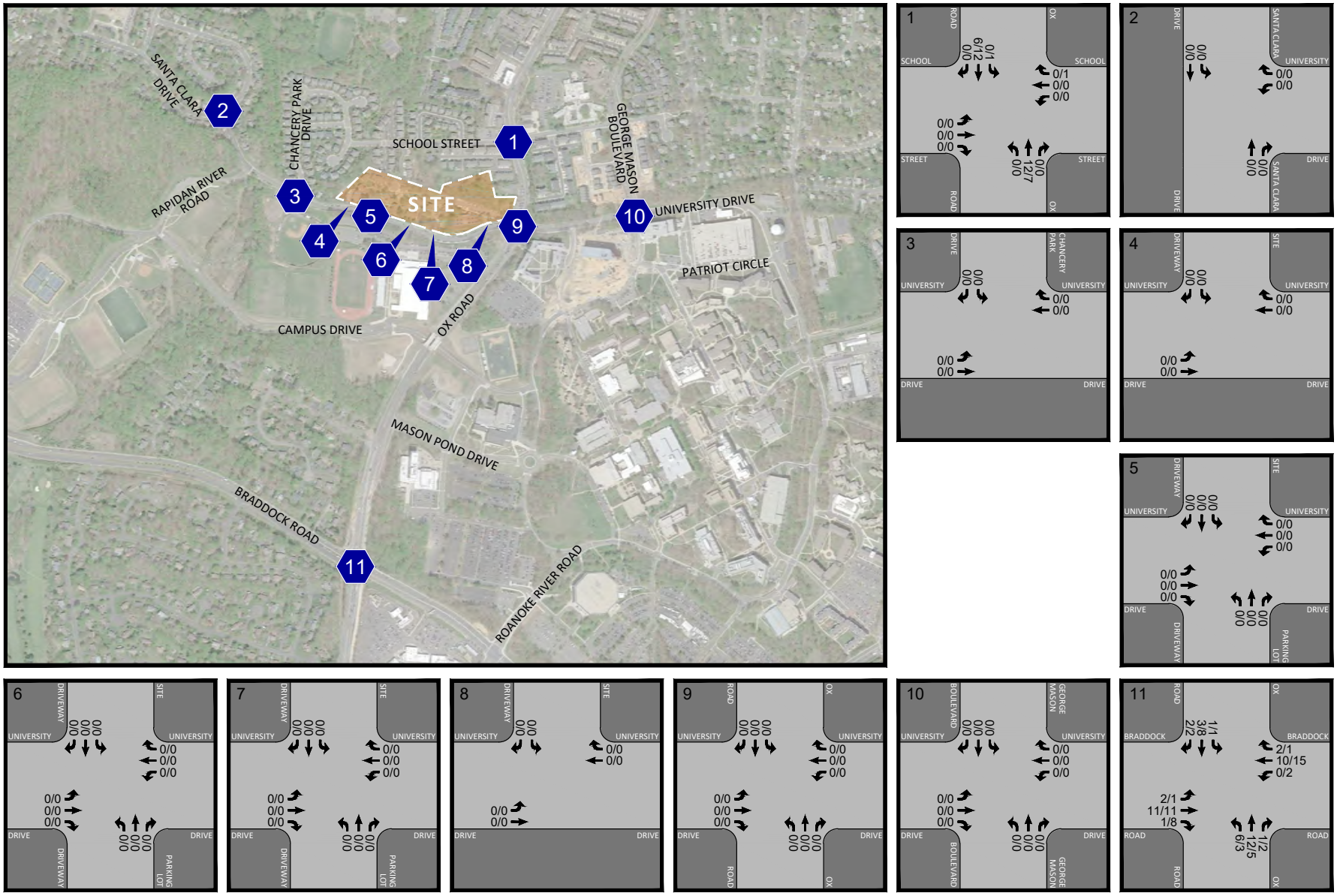

Figure 3-2
Regional Growth (2017-2018)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

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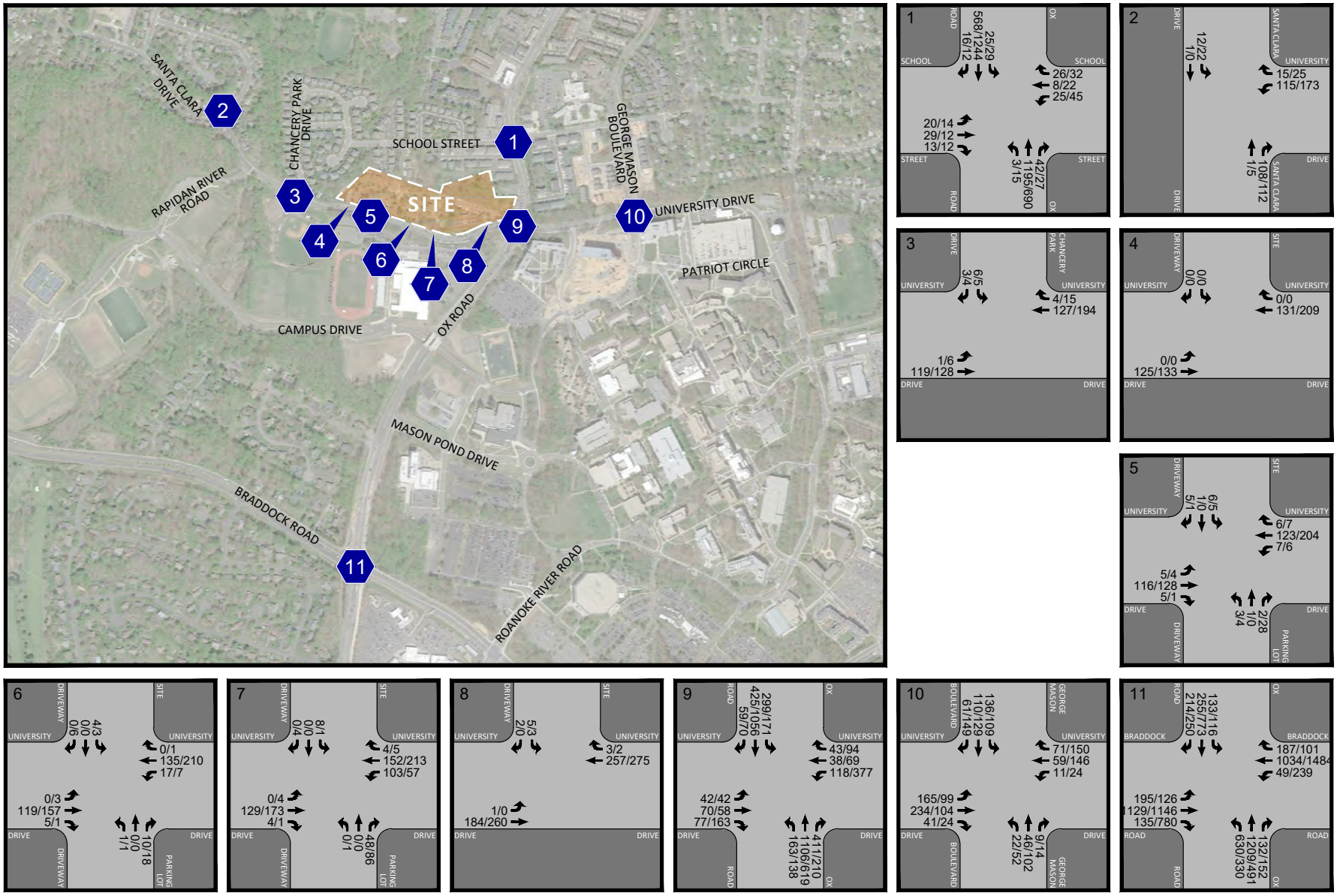

Figure 3-3
Baseline (2018) Peak Hour Traffic Volumes

One University
Fairfax County, Virginia

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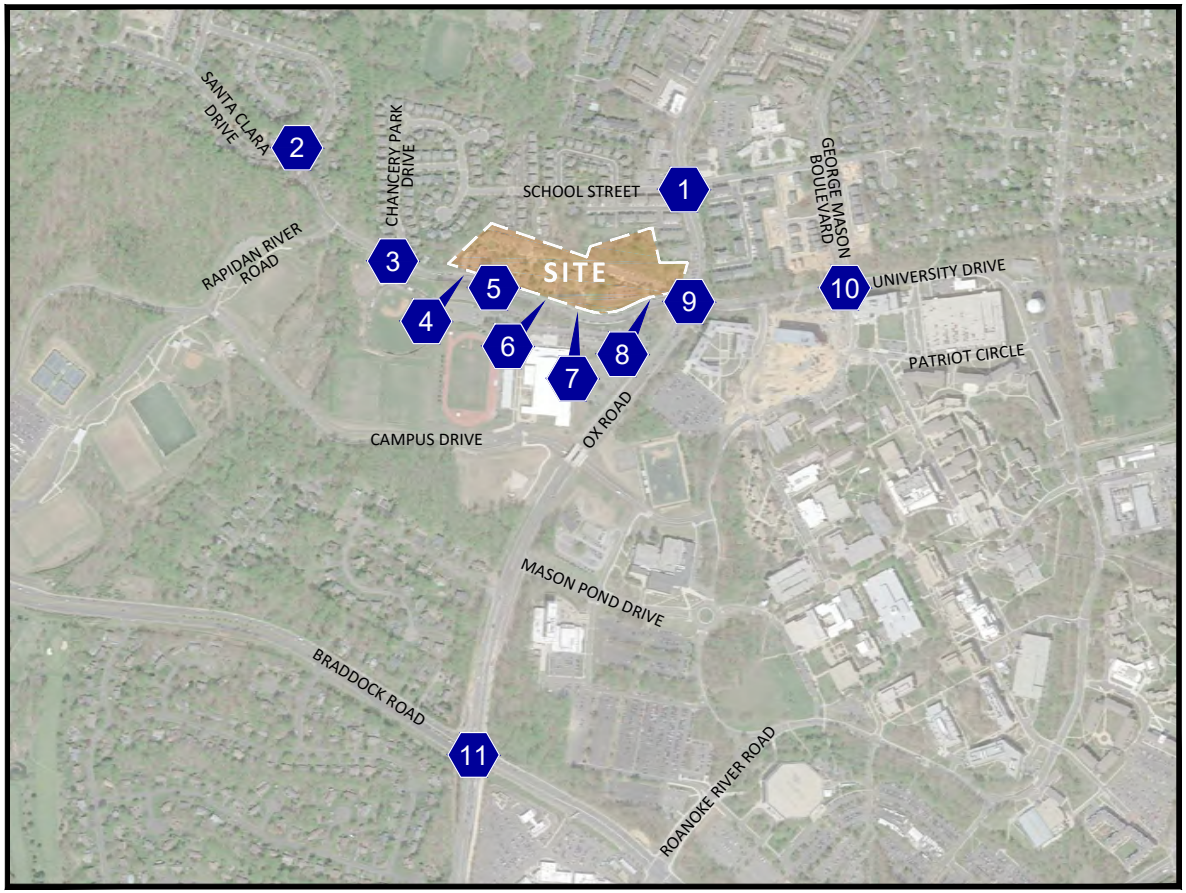

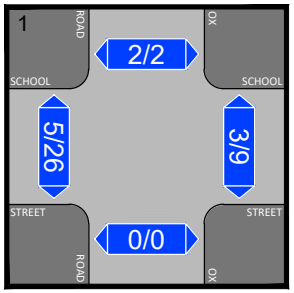

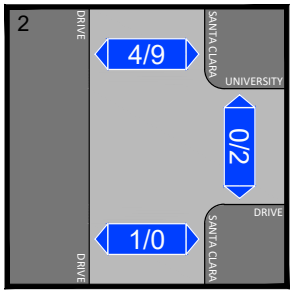

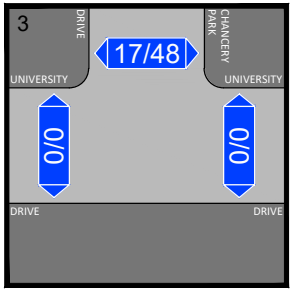

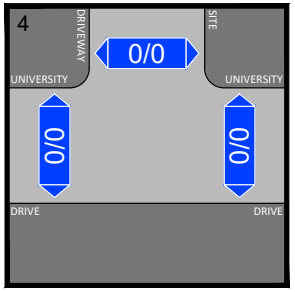

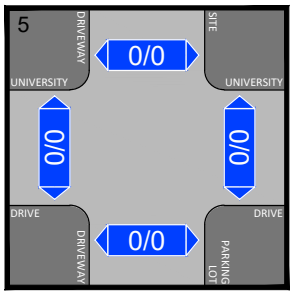

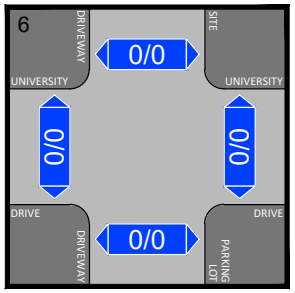

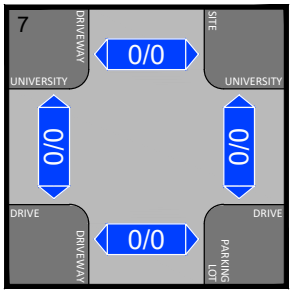

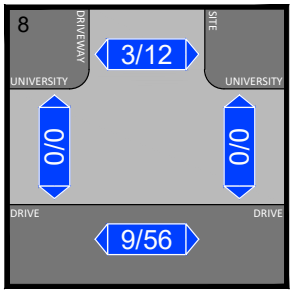

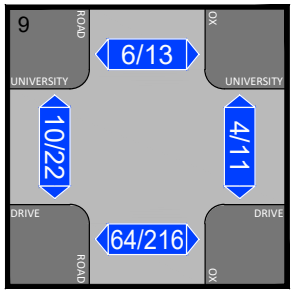

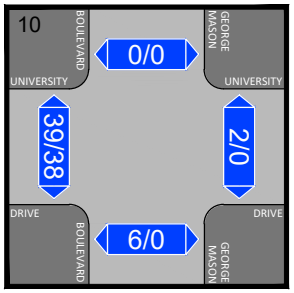

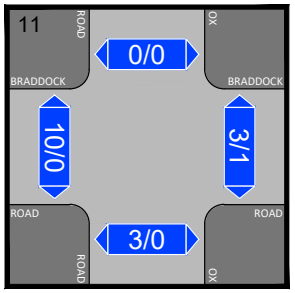

Figure 3-4

Existing Peak Hour Pedestrian Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

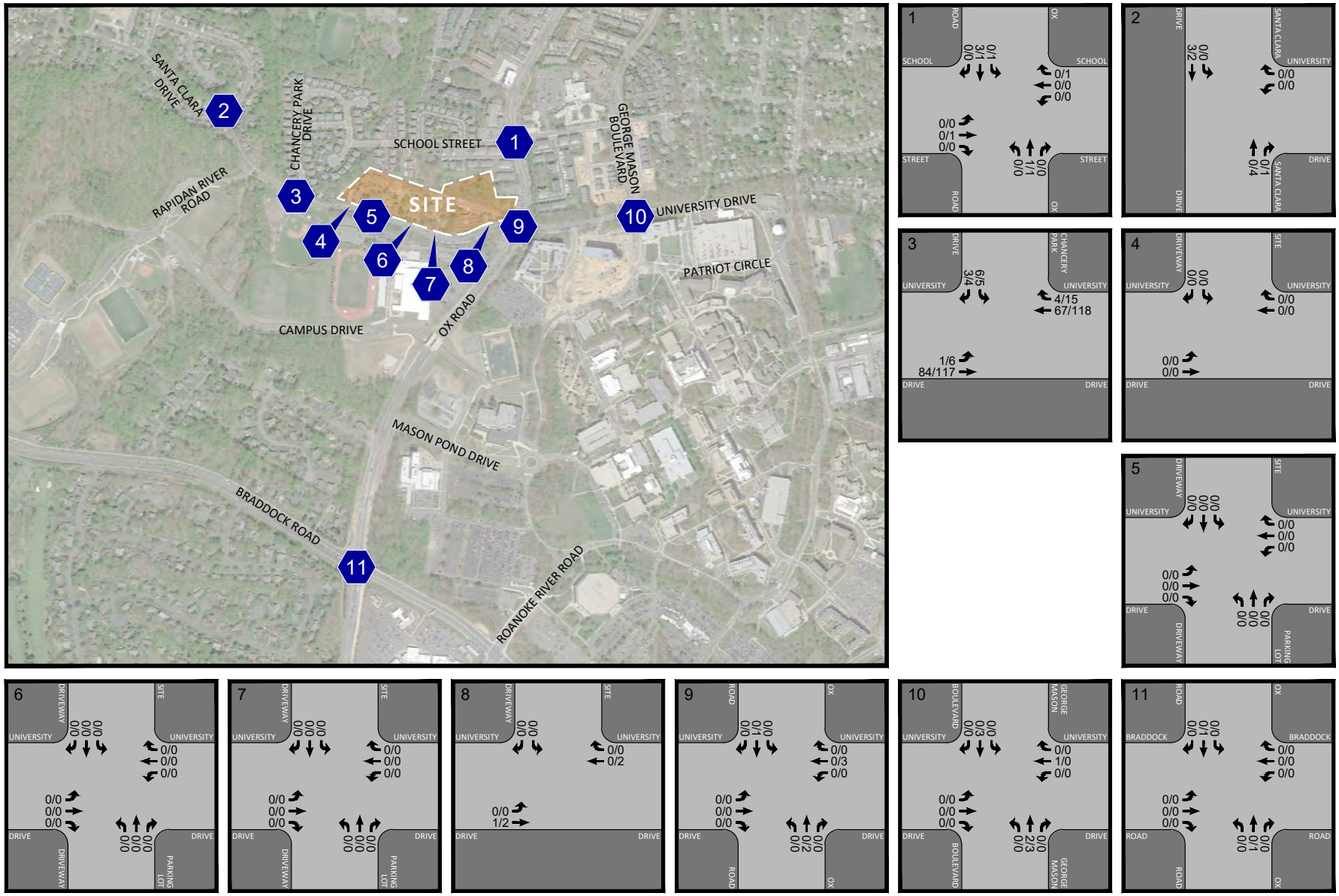

Figure 3-5
Existing Peak Hour Bicycle Volumes

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

SECTION 4
ANALYSIS OF FUTURE (2022) CONDITIONS WITHOUT DEVELOPMENT

Traffic Volumes

This section presents an analysis of future 2022 transportation conditions including future traffic forecasts without the proposed development and capacity and queuing analyses.

Methodology/Assumptions. It was assumed that the proposed development would be complete and fully occupied by 2022 as specified in the traffic scoping document. Future traffic forecasts without the proposed development were derived based on the baseline traffic counts and regional traffic growth.

Regional Growth. An increase in traffic associated with regional growth from 2018 to 2022 was estimated at 1% per year compounded annually, compatible with other area studies and agreed to during the scoping process, for all through movements along Ox Road and all movements at the Ox Road/Braddock Road intersection.

Pipeline Developments. No pipeline developments were assumed in this study, as confirmed in the scoping document shown in Appendix A. The conservative 1 % growth rate is assumed to account for increases in traffic resulting from potential local infill developments. Regional growth volumes are depicted on Figure 4-1.

Future Traffic Volumes without Development. The baseline traffic forecasts depicted on Figure 3-3 and the regional growth for 2018 to 2022 shown on Figure 4-1 were added together to yield the background future (2022) forecasts shown on Figure 4-2 at the study intersections.

Operational Analysis

Future peak hour level of service without the proposed development in 2022 were calculated at the key study intersections based on the existing lane use and traffic controls shown on Figure 2-3; the future traffic forecasts without the proposed development shown on Figure 4-2; the existing traffic signal phasings/timings obtained by VDOT and the City of Fairfax; and the Highway Capacity Manual 2000 and 2010 methodologies, using Synchro 10, where applicable.

Levels of Service. The 2022 LOS results without the proposed development and the addition of regional growth are summarized in Table 4-1 and indicate the following:

- All signalized study intersections would operate at overall LOS “D” or better during the AM and PM peak hours with the exception of the intersection of Braddock Road and Ox Road, consistent with existing conditions. Individual lane groups detailed under the existing conditions analysis would continue to operate at or beyond capacity (LOS “E” or “F”) with increased delay as a result of regional growth.

- All the approaches at the stop-controlled study intersections would continue to operate at LOS “D” or better during the AM and PM hours.

Capacity analysis worksheets for 2022 future conditions without development are included in Appendix F.

Queues. The future peak hour queue results without the proposed development for the turning movements are presented in Appendix F and summarized in Table 4-2. As shown in Table 4-2, the estimated 50th and 95th percentile queues would increase at all of the study intersections when compared to 2018 existing queues as a result of regional growth. Queues noted under the existing conditions as exceeding available storage would continue to do so under the 2022 background conditions.

Table 4-1
One University
Future Conditions without Development Intersection Level of Service Summary

Approach/ Lane Group	Existing Conditions (2018)				Future Conditions without Development (2022)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
1. School Street & Ox Road/Chain Bridge Road - Signalized								
EBLT	E	63.1	D	50.0	E	62.8	D	53.0
EBR	E	58.6	D	48.9	E	58.7	D	51.8
WBLT	E	61.9	D	52.6	E	62.1	E	55.8
WBR	E	58.7	D	49.1	E	58.8	D	52.0
NBL	A	2.8	A	7.2	A	2.8	A	6.1
NBTR	A	6.0	A	8.7	A	6.1	A	7.4
SBL	A	3.1	A	5.0	A	3.2	A	4.0
SBTR	A	3.9	B	11.0	A	3.8	A	9.5
Overall	**A**	**8.9**	**B**	**12.8**	**A**	**8.8**	**B**	**11.5**
2. Santa Clara Drive/University Drive - Unsignalized								
WBLR	A	9.8	B	10.7	A	9.7	B	10.5
NBTR	A	0.0	A	0.0	A	0.0	A	0.0
SBLT	A	7.6	A	7.5	A	7.6	A	7.5
3. Chancery Park Drive/University Drive - Unsignalized								
EBLT	A	7.6	A	8.0	A	7.6	A	7.9
WBTR	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	B	10.1	B	11.2	B	10.0	B	11.0
4. West Driveway & University Drive - Unsignalized								
EBLTR	A	0.0	A	0.0	A	0.0	A	0.0
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	A	0.0	A	0.0	A	0.0	A	0.0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized								
EBLTR	A	7.5	A	7.7	A	7.5	A	7.7
WBLTR	A	7.5	A	7.5	A	7.5	A	7.5
NBLTR	B	10.3	A	9.6	B	10.1	A	9.4
SBLTR	B	10.2	B	11.6	B	10.0	B	11.4
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized								
EBLTR	A	0.0	A	7.7	A	0.0	A	7.7
WBLTR	A	7.5	A	7.6	A	7.5	A	7.6
NBLTR	A	9.2	A	9.5	A	9.1	A	9.4
SBLTR	B	11.1	B	10.6	B	10.9	B	10.4
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized								
EBLTR	A	0.0	A	7.7	A	0.0	A	7.7
WBLTR	A	7.8	A	7.8	A	7.7	A	7.7
NBLTR	A	9.3	B	10.0	A	9.2	A	9.8
SBLTR	C	15.4	B	10.8	B	14.5	B	10.6
8. University Plaza & Universiy Drive - Unsignalized								
EBLTR	A	7.9	A	0.0	A	7.8	A	0.0
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0
SBLTR	B	11.6	B	13.5	B	11.3	B	12.9
9. University Drive & Ox Road - Signalized								
EBL	D	45.7	D	47.5	D	44.1	D	47.6
EBTR	E	57.0	F	102.7	D	54.1	F	87.3
WBL	D	43.1	F	123.7	D	41.3	E	78.0
WBTR	D	47.6	D	38.6	D	45.8	D	37.9
NBL	C	25.1	D	39.7	C	23.6	D	41.9
NBT	D	54.2	D	40.1	D	51.5	D	40.5
NBR	D	47.0	D	38.4	D	43.3	D	38.4
SBL	E	69.3	C	29.2	E	64.0	C	29.5
SBT	C	24.7	D	49.7	C	24.2	D	51.8
SBR	C	21.9	C	32.2	C	21.5	C	32.2
Overall	**D**	**47.3**	**E**	**58.3**	**D**	**44.8**	**D**	**51.5**
10. George Mason Boulevard & University Drive - Signalized								
EBL	B	13.4	B	13.3	B	13.3	B	13.2
EBTR	B	18.9	B	17.7	B	18.6	B	17.4
WBL	B	16.7	B	15.2	B	16.5	B	15.2
WBT	B	19.8	C	20.6	B	19.6	C	20.3
WBR	B	13.9	B	14.6	B	13.8	B	14.3
NBL	B	16.2	B	14.6	B	16.1	B	14.5
NBTR	C	20.3	C	20.6	C	20.1	C	20.4
SBL	B	13.8	B	14.2	B	13.5	B	14.1
SBT	B	17.8	B	19.1	B	17.5	B	19.0
SBR	B	11.3	B	13.7	B	11.2	B	13.7
Overall	**B**	**16.3**	**B**	**16.7**	**B**	**16.1**	**B**	**16.5**
11. Braddock Road & Ox Road - Signalized								
EBL	E	68.7	F	80.5	E	68.8	F	80.4
EBT	D	54.5	F	86.2	D	50.4	F	98.9
EBR	A	4.9	F	95.9	A	4.8	F	110.1
WBL	E	72.3	E	79.5	E	72.5	F	85.8
WBT	E	55.2	E	67.3	E	56.1	F	82.1
WBR	C	29.7	C	22.6	C	29.6	C	23.0
NBL	F	111.5	F	82.8	F	126.1	F	83.4
NBT	F	136.6	D	51.2	F	153.1	D	51.4
NBR	C	22.8	B	19.1	C	22.9	B	19.4
SBL	F	84.0	E	78.8	F	81.3	E	78.7
SBT	D	54.0	F	92.9	D	53.8	F	107.6
SBR	E	77.9	E	64.8	E	73.6	E	66.2
Overall	**E**	**78.6**	**E**	**76.5**	**F**	**83.8**	**F**	**86.7**

Notes:
1. Capacity analysis based on Highway Capacity Manual methodology, using Synchro 10.

Table 4-2
One University
Future Conditions without Development Intersection Queuing Summary

Approach/ Lane Group	Storage Length (ft)	Existing Conditions (2018)				Future Conditions without Development (2022)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile
1. School Street & Ox Road/Chain Bridge Road - Signalized									
EBLT	-	51	89	24	47	47	89	22	48
EBR	-	0	0	0	0	0	0	0	0
WBLT	-	31	66	64	99	31	65	60	102
WBR	-	0	0	0	0	0	0	0	0
NBL	150	0	2	3	12	0	2	3	11
NBTR	-	203	297	145	235	216	315	141	227
SBL	100	3	10	6	19	3	10	6	18
SBTR	-	49	124	220	502	47	126	215	499
2. Santa Clara Drive/University Drive - Unsignalized									
WBLR	-	-	15	-	25	-	15	-	25
NBTR	-	-	0	-	0	-	0	-	0
SBLT	-	-	0	-	3	-	0	-	3
3. Chancery Park Drive/University Drive - Unsignalized									
EBLT	-	-	0	-	0	-	0	-	0
WBTR	-	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	3	-	0	-	0
4. West Driveway & University Drive - Unsignalized									
EBLTR	-	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	0	-	0	-	0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized									
EBLTR	-	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0
NBLTR	-	-	0	-	3	-	0	-	3
SBLTR	-	-	3	-	0	-	3	-	0
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized									
EBLTR	-	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0
NBLTR	-	-	0	-	3	-	0	-	3
SBLTR	-	-	0	-	0	-	0	-	0
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized									
EBLTR	-	-	0	-	0	-	0	-	0
WBLTR	-	-	8	-	3	-	8	-	3
NBLTR	-	-	5	-	10	-	5	-	10
SBLTR	-	-	3	-	0	-	3	-	0
8. University Plaza & Universiy Drive - Unsignalized									
EBLTR	-	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0
SBLTR	-	-	0	-	0	-	0	-	0
9. University Drive & Ox Road - Signalized									
EBL	-	39	69	31	56	36	70	29	56
EBTR	-	154	229	198	288	137	224	172	282
WBL	-	115	165	363	#506	106	164	326	#465
WBTR	160	60	110	118	178	53	108	106	177
NBL	170	92	142	118	202	89	137	117	203
NBT	-	742	#922	276	336	755	#941	285	348
NBR	250	221	365	0	0	217	356	0	0
SBL	420	350	#503	113	166	315	#484	113	166
SBT	-	180	225	618	725	171	228	657	#801
SBR	120	0	0	0	0	0	0	0	0
10. George Mason Boulevard & University Drive - Signalized									
EBL	820	43	114	26	60	40	110	24	60
EBTR	-	76	236	32	96	69	228	29	96
WBL	330	3	14	6	20	2	14	5	21
WBT	-	24	68	60	125	22	67	54	123
WBR	300	0	14	0	28	0	13	0	32
NBL	-	7	21	15	37	6	21	14	36
NBTR	-	24	58	48	104	21	57	45	99
SBL	300	47	87	32	69	42	85	30	64
SBT	-	37	93	52	108	33	93	50	102
SBR	300	0	16	0	29	0	17	0	28
11. Braddock Road & Ox Road - Signalized									
EBL	715	111	143	74	110	107	148	77	113
EBT	-	647	689	~742	#883	608	714	~803	#943
EBR	675	0	16	~711	#1022	0	18	~790	#1205
WBL	470	52	101	276	#430	53	103	289	#458
WBT	-	574	#766	~1005	#1185	587	#784	~1085	#1263
WBR	-	37	95	20	53	39	97	23	57
NBL	380	~372	#499	193	252	~402	#529	201	261
NBT	-	~793	#934	253	324	~840	#980	266	339
NBR	320	0	1	0	34	0	5	0	41
SBL	400	78	#121	63	m73	75	#127	65	m74
SBT	-	138	177	~521	m#637	132	182	~562	m#697
SBR	300	0	36	120	m152	0	42	138	m176

Notes:
1. ~ Volume exceeds capacity, queue is theoretically infinite.
2. # 95th percentile volume exceeds capacity, queue may be longer.

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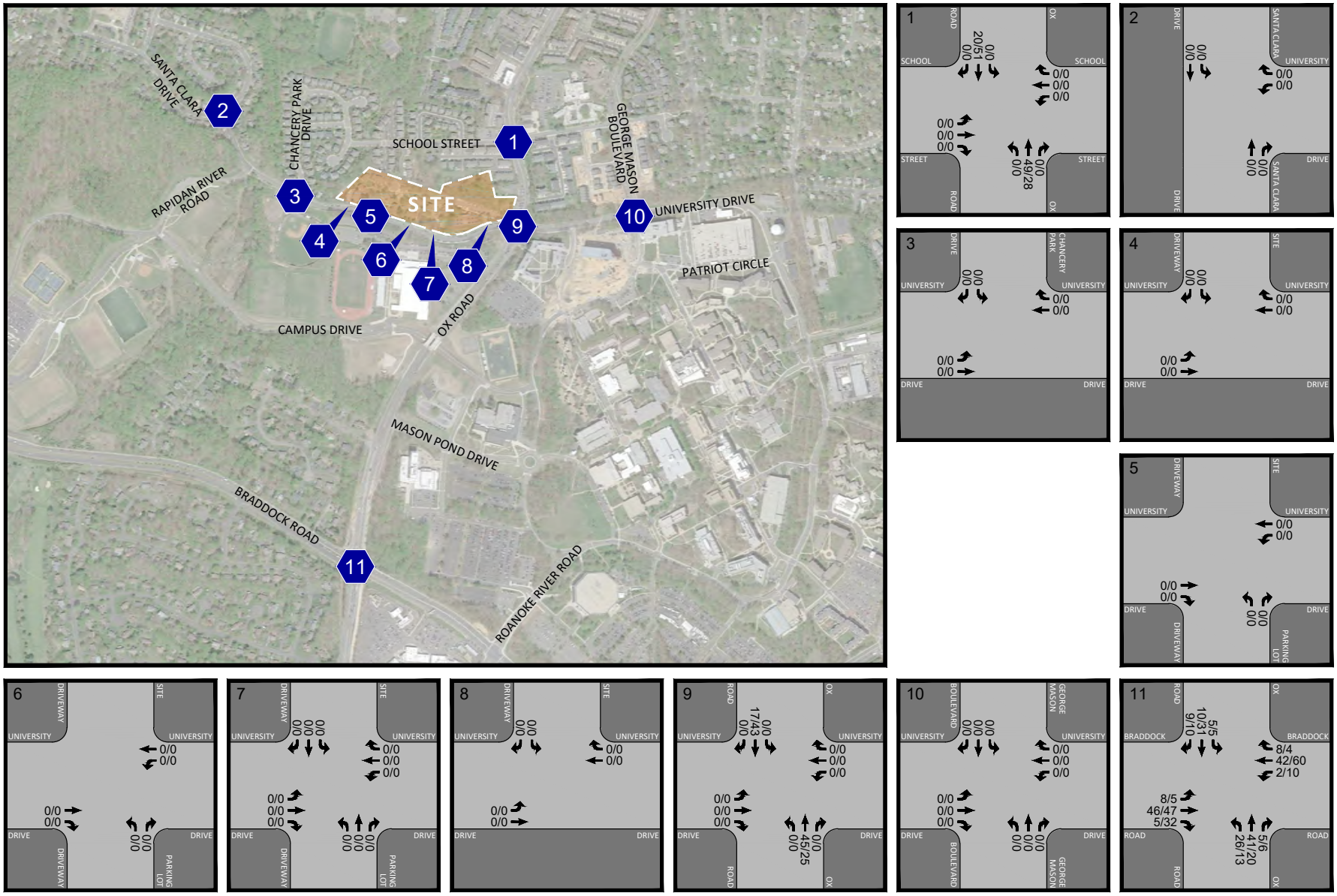

Figure 4-1
Regional Growth (2018-2022)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

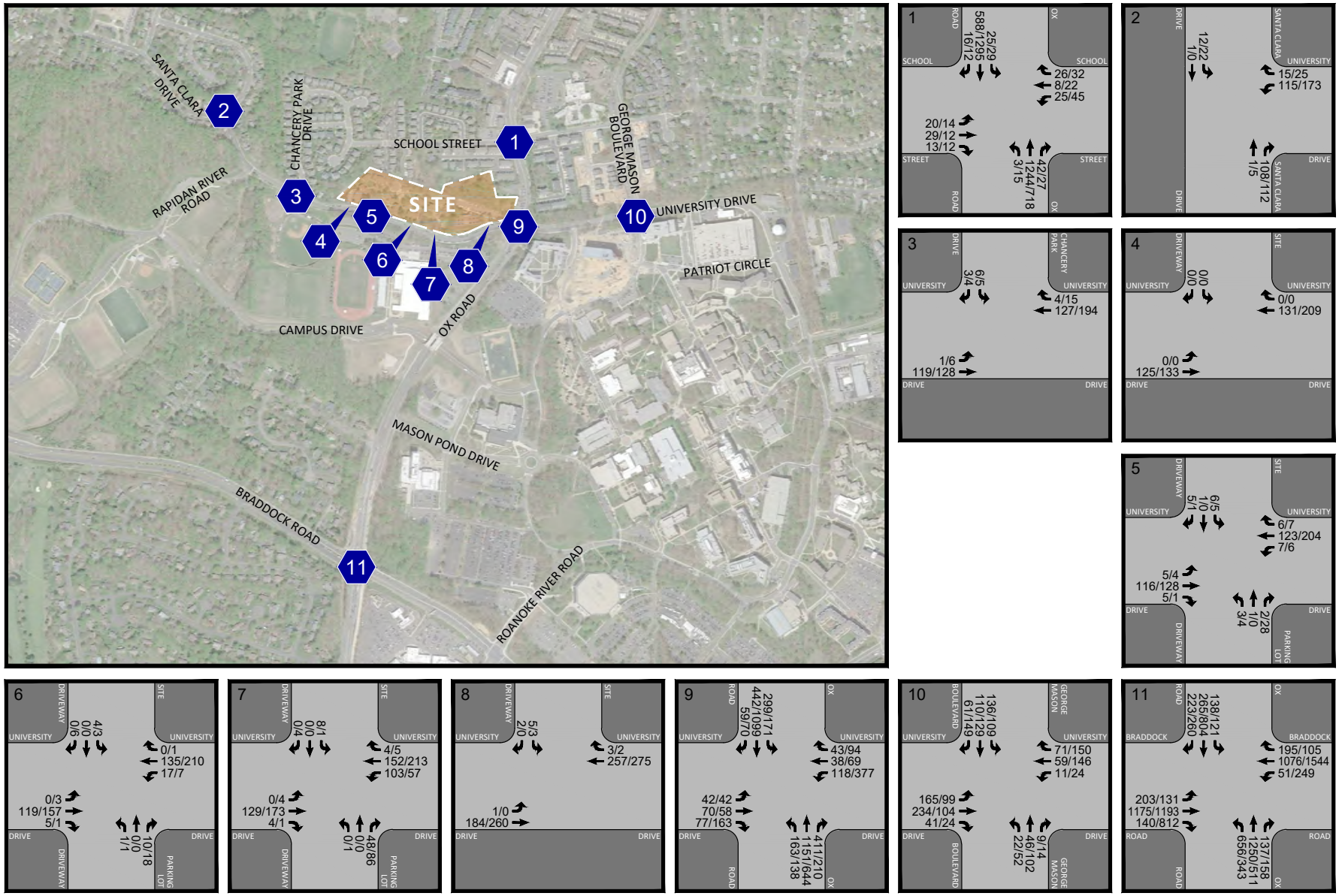

Figure 4-2

Future Peak Hour Traffic Forecasts without Development (2022)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

SECTION 5
TRIP GENERATION, TRAFFIC DISTRIBUTIONS & ASSIGNMENTS

Site Trip Generation

The number of weekday AM and PM peak hour trips would be generated by the proposed site were calculated based on the standard rates and equations published by ITE in the Trip Generation Manual, 9th Edition.

As shown in Table 5-1, the proposed development (602 residential units) is estimated to generate 260 AM peak hour trips (52 in and 208 out) and 327 PM peak hour trips (213 in and 115 out) upon completion and full occupancy by 2022. These estimates account for a non-auto mode split reduction.

It is noted that trip estimates assumed in this study provide a very conservative analysis. The residential portion of the development is comprised of student, senior affordable, and family affordable housing options. These uses generate less traffic versus standard market-rate housing during peak periods since they are very multimodal oriented. Table 5-1A provides additional data from the ITE Trip Generation Manual 10th Edition on expected trips associated with senior housing and student housing.

As shown Table 5-1A, when compared to market rate multi-family apartments housing senior housing would generate approximately 9% to 52% fewer trips and student housing would generate 62% to 64% fewer trips. Further, while no ITE rate currently exists for affordable housing, the trip generation characteristics of this type of housing also generally lower than market rate apartment developments.

VDOT Chapter 870. For determination of VDOT Chapter 870 compliance the published ITE rates are used without reductions for non-auto use. As shown on Table 5-1, the proposed development would generate approximately 4,238 unadjusted weekday daily (24-hour) trips and is below the 5,000 trip threshold that would trigger a full Chapter 870 review.

Non-Auto Mode Shares. For purposes of this study, residential peak hour trips are based on the ITE Land Use Code 220 with the typical non-auto mode shares that would be acceptable to FCDOT and VDOT. The Fairfax County non-auto mode share goal for non-Transit Orientated Development (TOD) is 15 to 20 percent. For purposes of this assessment a conservative 15% was assumed.

Site trips generated by the existing uses were removed from the network based on vehicle traffic counts conducted at each existing driveway and the peak hour directional splits of Ox Road. The resulting existing trips removed are shown on Figure 5-1.

Site Traffic Distribution & Assignments

Trip distributions for the proposed development are based on recent traffic counts, the surrounding road network, local knowledge and engineering judgement. The following trip distributions were assumed for the proposed residential development trips.

To/From the North on Ox Road:	43%
To/From the East on University Drive:	5%
To/From the West on University Drive:	2%
To/From the East on Braddock Road:	15%
To/From the South on Ox Road:	20%
To/From the West on Braddock Road:	15%
Total:	100%

The peak hour vehicle trips shown in Table 5-1 were assigned to the public roadway network according to the directional distribution described above. The resulting site generated trips are shown on Figure 5-2.

It is noted that additional pedestrians were also assigned to the intersection of University Drive/Ox Road to account for the increase in students traversing between the proposed student housing and GMU.

Site Access and Driveway Spacing

Access to/from the site is proposed to be provided via two (2) curb cuts along University Drive. The proposed development would result in the closure of three (3) curb cuts, thus consolidating access. The eastern site driveway (Intersection #5) would serve as the primary access location. The western site driveway (Intersection #2) would serve a small portion of residents of the age restricted building onsite and small surface parking lot intended for the conference room in the affordable building. Interparcel access would be provided connecting the four (4) buildings internally.

Driveway spacing from the signalized intersection of Ox Road/University Drive is shown on Figure 5-3. Adequate spacing exists, per Appendix F of the VDOT Road Design Manual.

Table 5-1
One University
Trip Generation Analysis for TIA [1]

Land Use	ITE Code	Size	Units	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Conditions									
Residential (Affordable/62 years+)	220	100	DU	11	42	53	47	26	73
Residential (Affordable)	220	140	DU	14	58	72	62	33	95
Residential (Student Housing)	220	362	DU	36	145	181	141	76	217
Total Residential Proposed Trips				**61**	**245**	**306**	**250**	**135**	**385**
Non-Auto Adjustment (15%)				(9)	(37)	(46)	(38)	(20)	(58)
Total Proposed Trips w/ Adjustments				**52**	**208**	**260**	**213**	**115**	**327**

Notes:
1. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.

Table 5-1a
One University
Trip Generation Comparison - Student & Senior Housing vs General Apartments

Land Use	ITE Code	Size	Units	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Conditions									
Residential (Student Housing) [1]	220	362	DU	36	145	181	141	76	217
Residential (Student Housing) [2]	225	814	Beds	36	51	87	99	99	198
Difference				-	(94)	(94)	(42)	23	(19)
Percent Difference				*0.0%*	*-64.8%*	***-51.9%***	*-29.8%*	*30.3%*	***-8.8%***
Residential (62years+)[1]	220	100	DU	11	42	53	47	26	73
Residential (62years+) [2]	252	100	DU	7	13	20	14	12	26
Difference				(4)	(29)	(33)	(33)	(14)	(47)
Percent Difference				*-36.4%*	*-69.0%*	***-62.3%***	*-70.2%*	*-53.8%*	***-64.4%***

Notes:
1. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.
2. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition.

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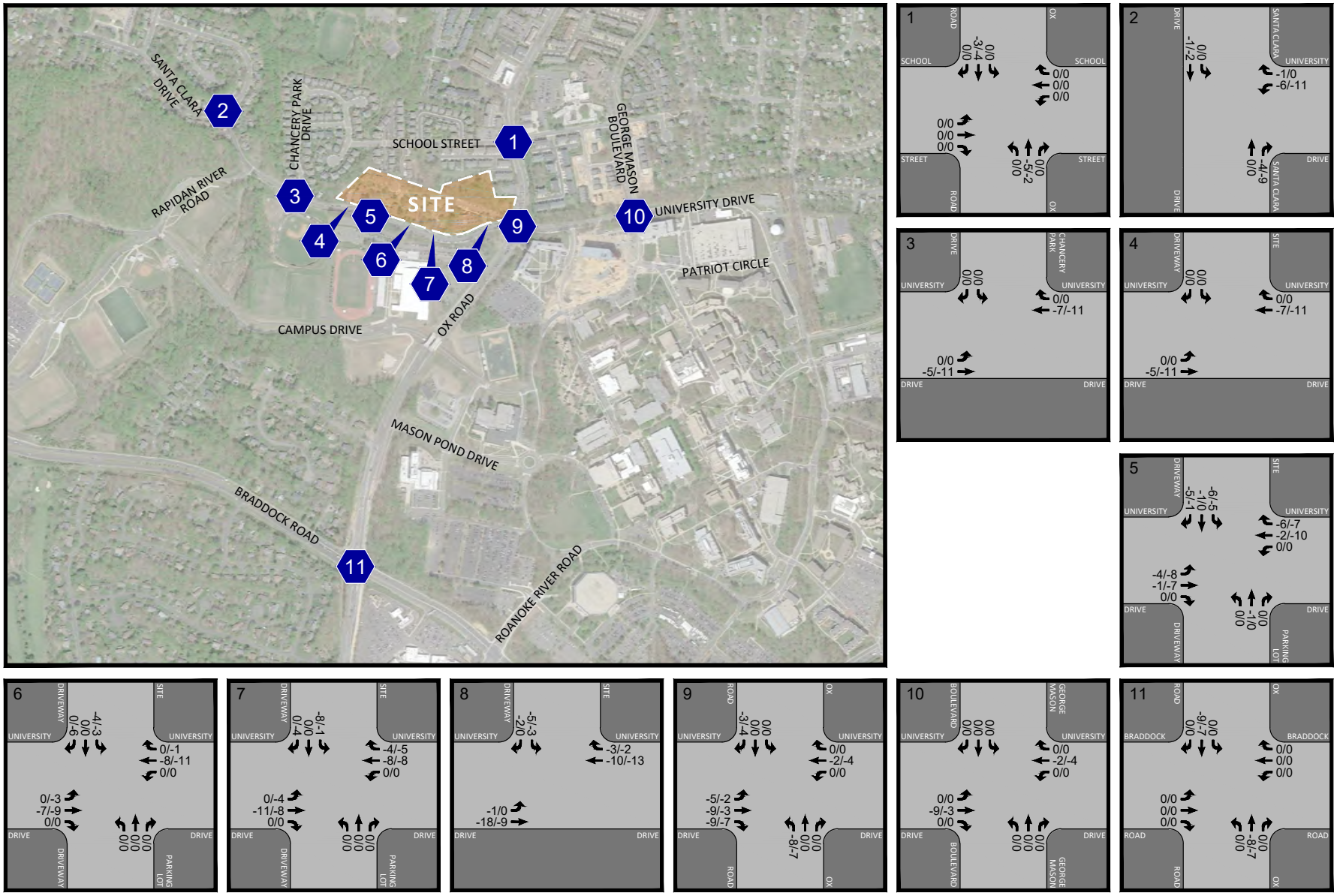

Figure 5-1
Existing Site Trips Removed

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

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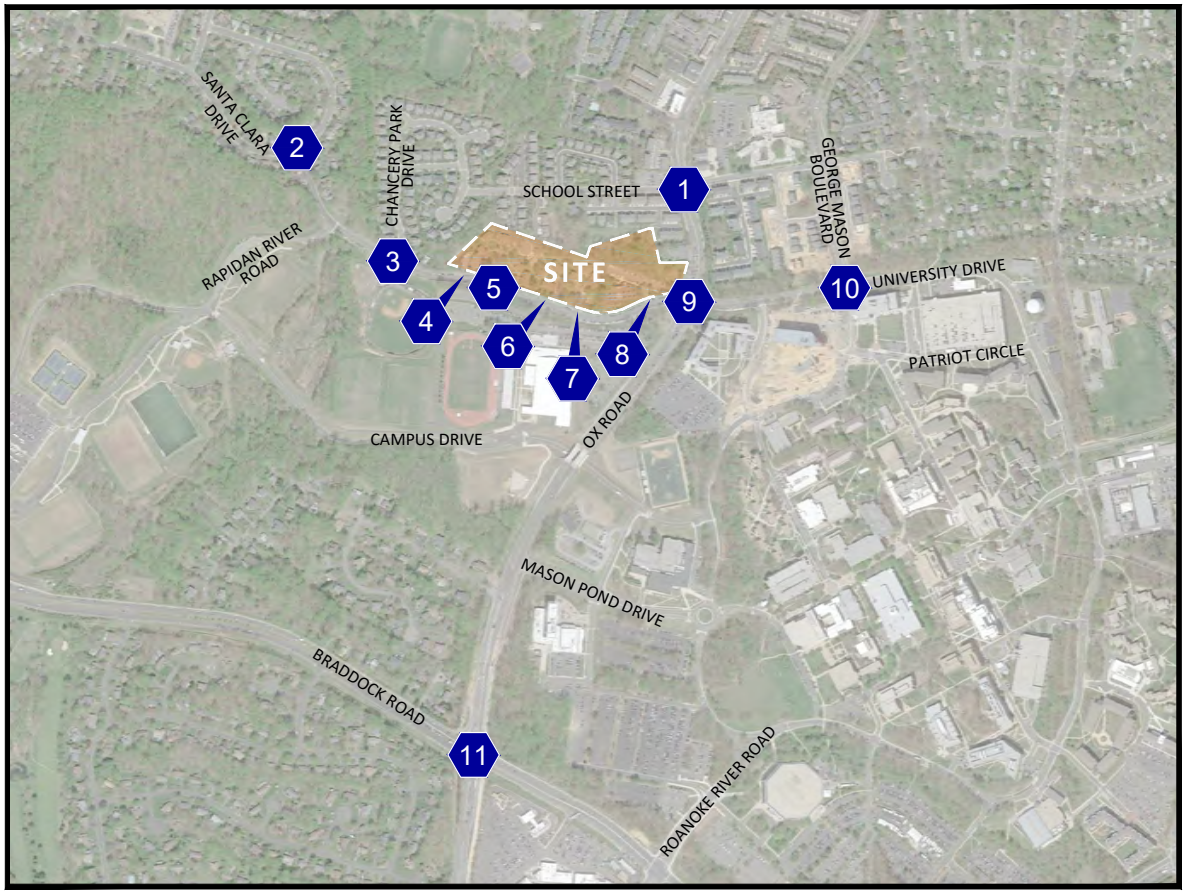

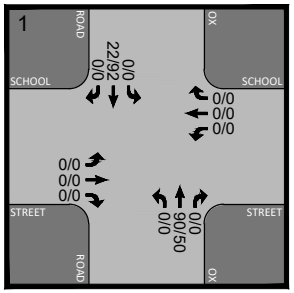

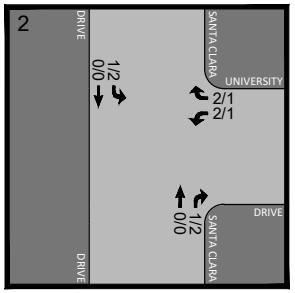

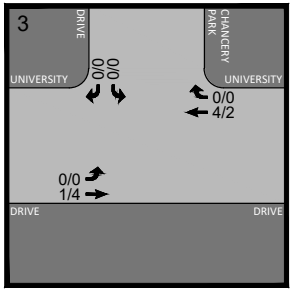

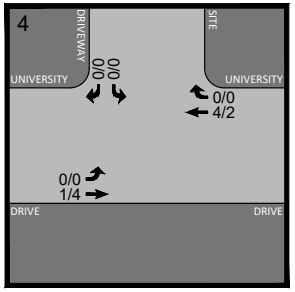

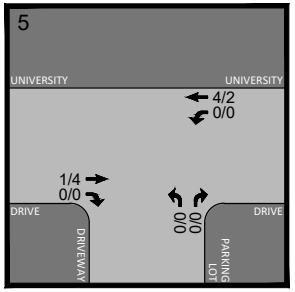

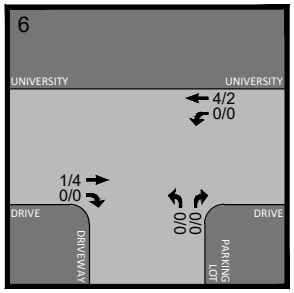

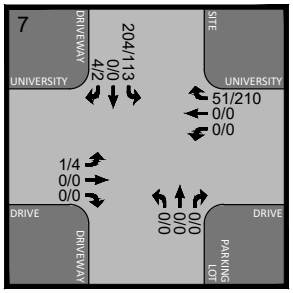

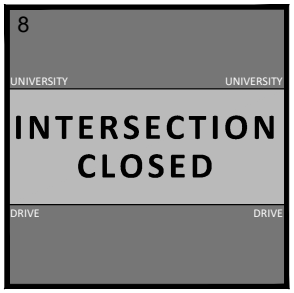

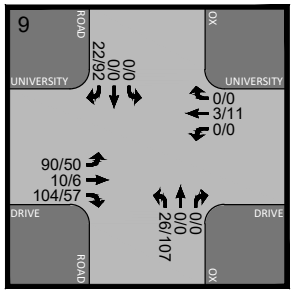

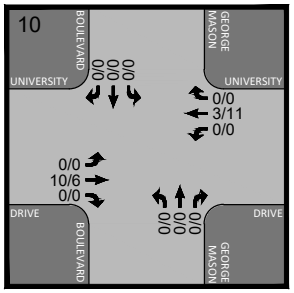

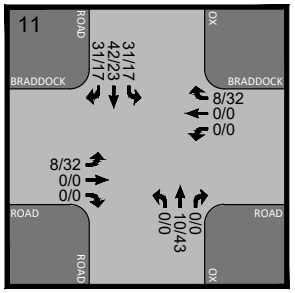

Figure 5-2
Site Generated Trips

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

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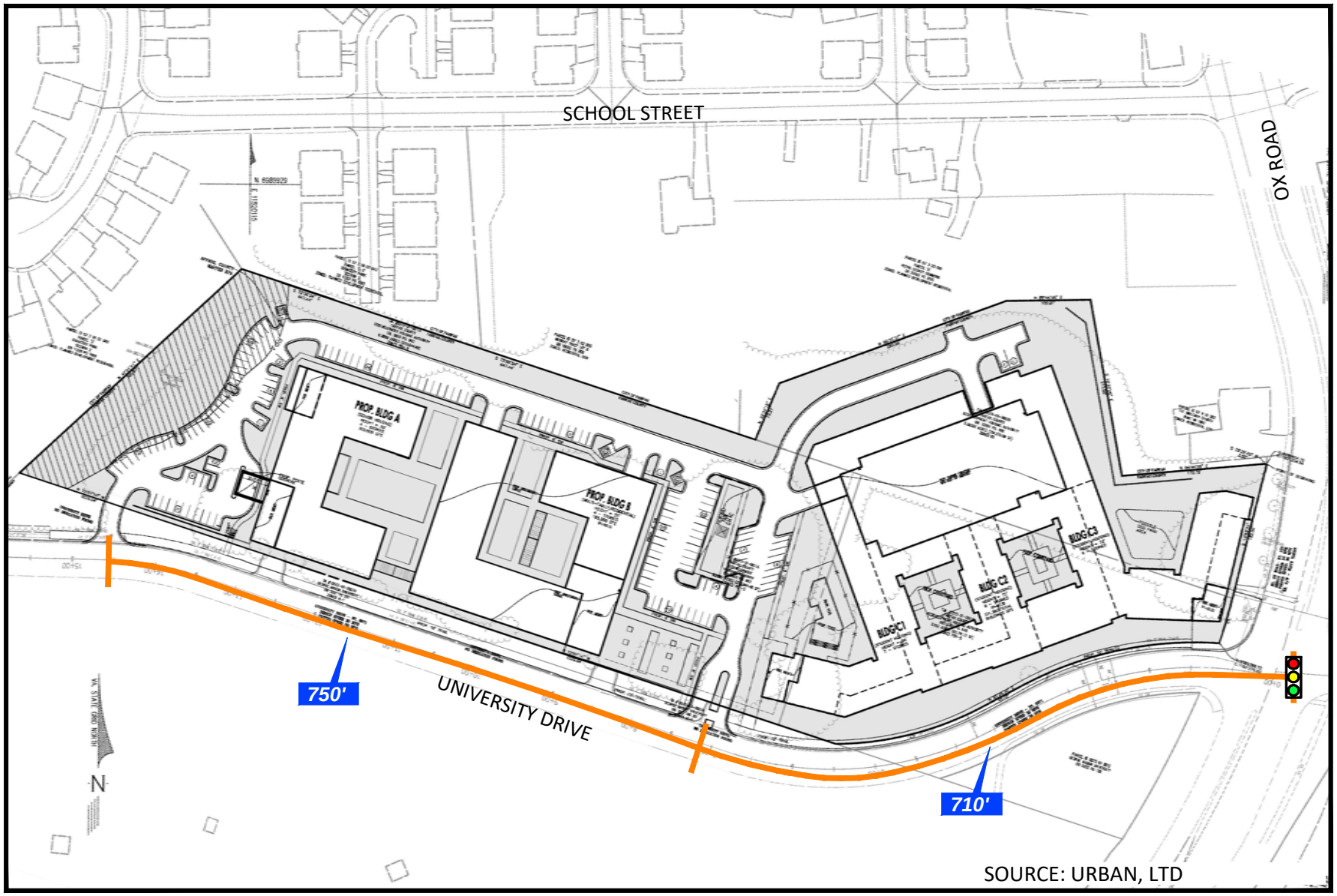

Figure 5-3
Intersection Spacing Diagram

NORTH
One University
Fairfax County, Virginia

SECTION 6
ANALYSIS OF FUTURE (2022) CONDITIONS WITH DEVELOPMENT

Traffic Volumes

Total Future traffic volumes were projected for year 2022 assuming buildout of the development. These volumes were generated by combining the 2018 baseline traffic volumes (Figure 3-3), regional growth (Figure 4-1), existing site trips removed (Figure 5-1), and the new traffic expected to be generated by the site (Figure 5-2). The resulting traffic volume forecasts for year 2022 is shown on Figure 6-1.

Capacity Analysis

Future peak hour levels of service and 50th and 95th percentile queues with the proposed development are summarized in Tables 6-1 and 6-2, respectively. The results were identified for the key study intersections based on the future traffic forecast shown on Figure 6-1, the planned lane use and traffic controls shown on Figure 6-2, and the Highway Capacity Manual 2000 and 2010 methodology using Synchro 10, where applicable. As noted in the trip generation section, the pedestrian crossings were increased at the University Drive/Ox Road intersection to account for students traversing between housing and campus.

Levels of Service. The 2022 LOS results with the proposed development is summarized in Table 6-1 and indicate the following:

- The signalized intersections of School Street/Ox Road and George Mason Boulevard/ University Drive would continue to operate at overall LOS “D” or better during the AM and PM peak hours. Some movements as noted under the existing and future conditions without development would continue to operate at LOS “E” during peak periods.

- The signalized intersection of University Drive/Ox Road would operate at overall LOS “D” during the AM peak hour and LOS “E” during the PM peak hour. consistent with existing conditions. Some individual lane groups would continue to operate at or beyond capacity (LOS “E” or “F”). All movements at the intersection would experience increased delays as a result of the development with the northbound left degrading to an LOS “F” and the southbound through degrading to a LOS “E” during the PM peak hour.

- The Braddock Road & Ox Road intersection would continue to operate beyond capacity during both peak periods consistent with future conditions without development.

- All the approaches at the stop-controlled study intersections, including the site driveways, would operate at LOS “D” or better during the AM and PM hours.

Capacity analysis worksheets for 2022 future conditions with development are included in Appendix G.

Queues. The future peak hour queue results without the proposed development for the turning movements are presented in Appendix G and summarized in Table 6-2. As shown in Table 6-2, the estimated 50th and 95th percentile would operate generally consistent with future conditions without development throughout the study area with the exception of the Ox Road/University Drive intersection which would experience greater increases in vehicular queuing as a result of the development.

Proposed Improvements

As described above, the proposed development would increase delay and queueing at the study intersections. The largest traffic impact would occur at the Ox Road/University Drive intersection. At this location a series of improvements are proposed to mitigate the traffic impact of the proposed development, as follows and shown graphically on Figure 6-3:

- The removal of on-street parking along University Drive from the first curb-cut serving the field house to the signal at Ox Road. This would allow for a longer two (2) lane approach (approximately 600 feet) at the intersection and permit additional vehicle storage.
- Re-stripe the eastbound approach of the intersection from an exclusive left-turn and shared through-right lane to a shared left-through and exclusive right-turn lane.
- Introduce a right-turn overlap phase for the eastbound approach.
- Lengthen the northbound left-turn lane from 160 feet to 400 feet to accommodate additional vehicle queueing.
- With the proposed development, site distance would be improved with the removal of existing overgrown vegetation in the northwest quadrant of the intersection.

The above improvements would improve operations at the intersection of Ox Road/University Drive. The restriping of the eastbound approach and additional storage gained by removing on-street parking along University Drive and lengthening the northbound left-turn lane on Ox Road would better accommodate vehicular queuing. The introduction of the eastbound right-turn overlap phase would allow right turning vehicles to make the right under protected conditions without interference from pedestrians. The LOS and queuing results affiliated with these improvements are shown in Tables 6-1 and 6-2 and indicate that the proposed improvements would allow the intersection to now operate at acceptable LOS during both peak periods. Overall delay at this location would be decreased below the existing conditions with these improvements.

While certain traffic movements currently, and would continue, to operate at capacity at the Ox Road/Braddock Road intersection, no improvements are recommended at this location. The intersection recently underwent upgrades which included additional lanes and turn lane lengthening. It is noted that it is common practice for VDOT to review traffic signal timings and monitor operations of intersections which could result in adjustments to traffic signal timings to adapt to changes in traffic over time. Existing traffic demands at this intersection are beyond capabilities of a traffic signal and require a grade-separated interchange, as is shown in the Fairfax County Comprehensive Plan.

Turn Lane Warrants

The VDOT *Road Design Manual* recommends that right and left-turn lanes are to be provided for traffic in both directions "…in the design of intersections." Exclusive turn lanes are to be provided when warrants are met. The warrants for turn lanes and/or tapers are typically based on the number of lanes on the facility being evaluated (two or four lanes), the volume of approach vehicles, and the number of vehicles turning left or right.

Right-turn warrants were tested at the main site driveway and the results are presented in Appendix H. As shown, a turn lane is warranted under future 2022 PM peak hour conditions. A turn lane or taper could be provided at this location through the removal of on-street parking.

Table 6-1
One University
Future Conditions with Development Intersection Level of Service Summary

Approach/ Lane Group	Existing Conditions (2018)				Future Conditions without Development (2022)				Future Conditions with Development (2022)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
1. School Street & Ox Road/Chain Bridge Road - Signalized												
EBLT	E	63.1	D	50.0	E	62.8	D	53.0	E	62.8	D	53.0
EBR	E	58.6	D	48.9	E	58.7	D	51.8	E	58.7	D	51.8
WBLT	E	61.9	D	52.6	E	62.1	E	55.8	E	62.1	E	55.8
WBR	E	58.7	D	49.1	E	58.8	D	52.0	E	58.8	D	52.0
NBL	A	2.8	A	7.2	A	2.8	A	6.1	A	2.8	A	6.6
NBTR	A	6.0	A	8.7	A	6.1	A	7.4	A	6.5	A	7.6
SBL	A	3.1	A	5.0	A	3.2	A	4.0	A	3.6	A	4.1
SBTR	A	3.9	B	11.0	A	3.8	A	9.5	A	3.9	B	10.1
Overall	**A**	**8.9**	**B**	**12.8**	**A**	**8.8**	**B**	**11.5**	**A**	**8.9**	**B**	**11.7**
2. Santa Clara Drive/University Drive - Unsignalized												
WBLR	A	9.8	B	10.7	A	9.7	B	10.5	A	9.7	B	10.4
NBTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLT	A	7.6	A	7.5	A	7.6	A	7.5	A	7.6	A	7.5
3. Chancery Park Drive/University Drive - Unsignalized												
EBLT	A	7.6	A	8.0	A	7.6	A	7.9	A	7.6	A	7.9
WBTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	B	10.1	B	11.2	B	10.0	B	11.0	A	9.9	B	10.9
4. West Driveway & University Drive - Unsignalized												
EBLTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized												
EBLTR/EBTR	A	7.5	A	7.7	A	7.5	A	7.7	A	0.0	A	0.0
WBLTR/WBLT	A	7.5	A	7.5	A	7.5	A	7.5	A	0.0	A	0.0
NBLTR/NBLR	B	10.3	A	9.6	B	10.1	A	9.4	A	9.7	A	9.3
SBLTR	B	10.2	B	11.6	B	10.0	B	11.4	Closed			
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized												
EBLTR/EBTR	A	0.0	A	7.7	A	0.0	A	7.7	A	0.0	A	0.0
WBLTR/WBLT	A	7.5	A	7.6	A	7.5	A	7.6	A	0.0	A	0.0
NBLTR/NBLR	A	9.2	A	9.5	A	9.1	A	9.4	A	9.1	A	9.3
SBLTR	B	11.1	B	10.6	B	10.9	B	10.4	Closed			
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized												
EBLTR	A	0.0	A	7.7	A	0.0	A	7.7	A	7.7	A	8.2
WBLTR	A	7.8	A	7.8	A	7.7	A	7.7	A	7.7	A	7.7
NBLTR	A	9.3	B	10.0	A	9.2	A	9.8	A	9.1	A	9.8
SBLTR	C	15.4	B	10.8	B	14.5	B	10.6	D	26.8	C	24.4
8. University Plaza & Universiy Drive - Unsignalized												
EBLTR	A	7.9	A	0.0	A	7.8	A	0.0				
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0	Closed			
SBLTR	B	11.6	B	13.5	B	11.3	B	12.9				
9. University Drive & Ox Road - Signalized												
EBL	D	45.7	D	47.5	D	44.1	D	47.6	D	42.6	D	46.0
EBTR	E	57.0	F	102.7	D	54.1	F	87.3	F	85.5	F	164.6
WBL	D	43.1	F	123.7	D	41.3	E	78.0	D	47.4	F	119.0
WBTR	D	47.6	D	38.6	D	45.8	D	37.9	D	52.3	D	41.6
NBL	C	25.1	D	39.7	C	23.6	D	41.9	C	24.4	F	117.7
NBT	D	54.2	D	40.1	D	51.5	D	40.5	D	54.3	D	40.8
NBR	D	47.0	D	38.4	D	43.3	D	38.4	D	49.9	D	39.7
SBL	E	69.3	C	29.2	E	64.0	C	29.5	E	66.7	C	30.8
SBT	C	24.7	D	49.7	C	24.2	D	51.8	C	25.7	E	62.0
SBR	C	21.9	C	32.2	C	21.5	C	32.2	C	23.4	D	40.6
Overall	**D**	**47.3**	**E**	**58.3**	**D**	**44.8**	**D**	**51.5**	**D**	**50.0**	**E**	**71.2**
Improvement[2]												
EBLT									E	67.0	E	62.7
EBR									D	49.5	D	47.0
WBL									D	52.6	F	90.0
WBTR									D	41.6	C	34.0
NBL									C	22.0	E	68.6
NBT									D	43.8	D	35.9
NBR									D	40.8	C	34.8
SBL									E	64.0	C	28.6
SBT									C	22.1	E	57.1
SBR									C	20.1	D	38.8
Overall									**D**	**42.5**	**D**	**52.4**
10. George Mason Boulevard & University Drive - Signalized												
EBL	B	13.4	B	13.3	B	13.3	B	13.2	B	13.3	B	13.2
EBTR	B	18.9	B	17.7	B	18.6	B	17.4	B	18.6	B	17.5
WBL	B	16.7	B	15.2	B	16.5	B	15.2	B	16.6	B	15.2
WBT	B	19.8	C	20.6	B	19.6	C	20.3	B	19.6	C	20.4
WBR	B	13.9	B	14.6	B	13.8	B	14.3	B	13.8	B	14.3
NBL	B	16.2	B	14.6	B	16.1	B	14.5	B	16.1	B	14.5
NBTR	C	20.3	C	20.6	C	20.1	C	20.4	C	20.1	C	20.4
SBL	B	13.8	B	14.2	B	13.5	B	14.1	B	13.5	B	14.1
SBT	B	17.8	B	19.1	B	17.5	B	19.0	B	17.5	B	19
SBR	B	11.3	B	13.7	B	11.2	B	13.7	B	11.2	B	13.7
Overall	**B**	**16.3**	**B**	**16.7**	**B**	**16.1**	**B**	**16.5**	**B**	**16.1**	**B**	**16.5**
11. Braddock Road & Ox Road - Signalized												
EBL	E	68.7	F	80.5	E	68.8	F	80.4	E	68.7	E	79.8
EBT	D	54.5	F	86.2	D	50.4	F	98.9	D	50.4	F	98.9
EBR	A	4.9	F	95.9	A	4.8	F	110.1	A	4.8	F	110.1
WBL	E	72.3	E	79.5	E	72.5	F	85.8	E	72.5	F	85.8
WBT	E	55.2	E	67.3	E	56.1	F	82.1	E	57.0	F	91.4
WBR	C	29.7	C	22.6	C	29.6	C	23.0	C	30.1	C	24.1
NBL	F	111.5	F	82.8	F	126.1	F	83.4	F	126.1	F	83.4
NBT	F	136.6	D	51.2	F	153.1	D	51.4	F	153.9	D	53.1
NBR	C	22.8	B	19.1	C	22.9	B	19.4	C	22.9	B	19.9
SBL	F	84.0	E	78.8	F	81.3	E	78.7	F	104.8	E	78
SBT	D	54.0	F	92.9	D	53.8	F	107.6	D	54.5	F	113.9
SBR	E	77.9	E	64.8	E	73.6	E	66.2	F	92.3	E	67.4
Overall	**E**	**78.6**	**E**	**76.5**	**F**	**83.8**	**F**	**86.7**	**F**	**85.4**	**F**	**89.4**

Notes:
1. Capacity analysis based on Highway Capacity Manual methodology, using Synchro 10.
2. Northbound left turn lane extended to 400 feet, removal of adjacent street parking, eastbound approach restriped to left-through and right, right turn overlap, and optimization of signal timing splits.

Table 6-2
One University
Future Conditions with Development Intersection Queuing Summary

Approach/ Lane Group	Storage Length (ft)	Existing Conditions (2018)				Future Conditions without Development (2022)				Future Conditions with Development (2022)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile
1. School Street & Ox Road/Chain Bridge Road - Signalized													
EBLT	-	51	89	24	47	47	89	22	48	47	89	22	48
EBR	-	0	0	0	0	0	0	0	0	0	0	0	0
WBLT	-	31	66	64	99	31	65	60	102	31	65	60	102
WBR	-	0	0	0	0	0	0	0	0	0	0	0	0
NBL	150	0	2	3	12	0	2	3	11	0	2	3	11
NBTR	-	203	297	145	235	216	315	141	227	241	351	153	246
SBL	100	3	10	6	19	3	10	6	18	3	10	6	18
SBTR	-	49	124	220	502	47	126	215	499	48	131	241	557
2. Santa Clara Drive/University Drive - Unsignalized													
WBLR	-	-	15	-	25	-	15	-	25	-	13	-	23
NBTR	-	-	-	-	-	-	-	-	-	-	-	-	-
SBLT	-	-	0	-	3	-	0	-	3	-	0	-	3
3. Chancery Park Drive/University Drive - Unsignalized													
EBLT	-	-	0	-	0	-	0	-	0	-	0	-	0
WBTR	-	-	0	-	0	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	3	-	0	-	0	-	0	-	0
4. West Driveway & University Drive - Unsignalized													
EBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	0	-	0	-	0	-	0	-	0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized													
EBLTR/EBTR	-	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR/WBLT	-	-	0	-	0	-	0	-	0	-	0	-	0
NBLTR/NBLR	-	-	0	-	3	-	0	-	3	-	0	-	3
SBLTR	-	-	3	-	0	-	3	-	0	CLOSED			
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized													
EBLTR/EBTR	-	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR/WBLT	-	-	0	-	0	-	0	-	0	-	0	-	0
NBLTR/NBLR	-	-	0	-	3	-	0	-	3	-	0	-	3
SBLTR	-	-	0	-	0	-	0	-	0	CLOSED			
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized													
EBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR	-	-	8	-	3	-	8	-	3	-	5	-	3
NBLTR	-	-	5	-	10	-	5	-	10	-	5	-	10
SBLTR	-	-	3	-	0	-	3	-	0	-	90	-	48
8. University Plaza & Universiy Drive - Unsignalized													
EBLTR	-	-	0	-	0	-	0	-	0				
WBLTR	-	-	0	-	0	-	0	-	0	CLOSED			
SBLTR	-	-	0	-	0	-	0	-	0				
9. University Drive & Ox Road - Signalized													
EBL	-	39	69	31	56	36	70	29	56	116	176	64	105
EBTR	-	154	229	198	288	137	224	172	282	236	#415	231	#411
WBL	-	115	165	363	#506	106	164	326	#465	106	164	345	#563
WBTR	160	60	110	118	178	53	108	106	177	58	113	120	193
NBL	170	92	142	118	202	89	137	117	203	97	151	~281	#485
NBT	-	742	#922	276	336	755	#941	285	348	743	#937	217	278
NBR	250	221	365	0	0	217	356	0	0	223	377	0	2
SBL	420	350	#503	113	166	315	#484	113	166	310	#481	113	166
SBT	-	180	225	618	725	171	228	657	#801	170	227	664	#801
SBR	120	0	0	0	0	0	0	0	0	0	0	11	80
Improvement[3]													
EBLT	-									252	#378	165	253
EBR	-									0	63	131	208
WBL	-									121	186	349	#458
WBTR	-									54	106	102	165
NBL	400									86	127	245	#420
NBT	-									693	803	99	123
NBR	250									220	353	0	2
SBL	420									307	#464	106	155
SBT	-									150	191	657	#763
SBR	120									0	20	16	86
10. George Mason Boulevard & University Drive - Signalized													
EBL	820	43	114	26	60	40	110	24	60	40	110	24	60
EBTR	-	76	236	32	96	69	228	29	96	70	229	29	98
WBL	330	3	14	6	20	2	14	5	21	2	14	5	21
WBT	-	24	68	60	125	22	67	54	123	22	67	57	127
WBR	300	0	14	0	28	0	13	0	32	0	13	0	32
NBL	-	7	21	15	37	6	21	14	36	6	21	14	36
NBTR	-	24	58	48	104	21	57	45	99	21	57	45	100
SBL	300	47	87	32	69	42	85	30	64	42	85	30	65
SBT	-	37	93	52	108	33	93	50	102	33	93	50	103
SBR	300	0	16	0	29	0	17	0	28	0	17	0	29
11. Braddock Road & Ox Road - Signalized													
EBL	715	111	143	74	110	107	148	77	113	111	153	95	135
EBT	-	647	689	~742	#883	608	714	~803	#943	608	714	~803	#943
EBR	675	0	16	~711	#1022	0	18	~790	#1205	0	18	~790	#1205
WBL	470	52	101	276	#430	53	103	289	#458	53	103	289	#458
WBT	-	574	#766	~1005	#1185	587	#784	~1085	#1263	590	#788	~1105	#1289
WBR	-	37	95	20	53	39	97	23	57	44	106	31	70
NBL	380	~372	#499	193	252	~402	#529	201	261	~402	#529	201	261
NBT	-	~793	#934	253	324	~840	#980	266	339	~842	#983	291	369
NBR	320	0	1	0	34	0	5	0	41	0	5	0	42
SBL	400	78	#121	63	m73	75	#127	65	m74	93	#169	75	m79
SBT	-	138	177	~521	m#637	132	182	~562	m#697	151	203	~583	m#672
SBR	300	0	36	120	m152	0	42	138	m176	0	80	145	m166

Notes:
1. ~ Volume exceeds capacity, queue is theoretically infinite.
2. # 95th percentile volume exceeds capacity, queue may be longer.
3. Northbound left turn lane extended to 400 feet, removal of adjacent street parking, eastbound approach restriped to left-through and right, right turn overlap, and optimization of signal timing splits.

Figure 6-1

Future Peak Hour Traffic Forecasts with Development (2022)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

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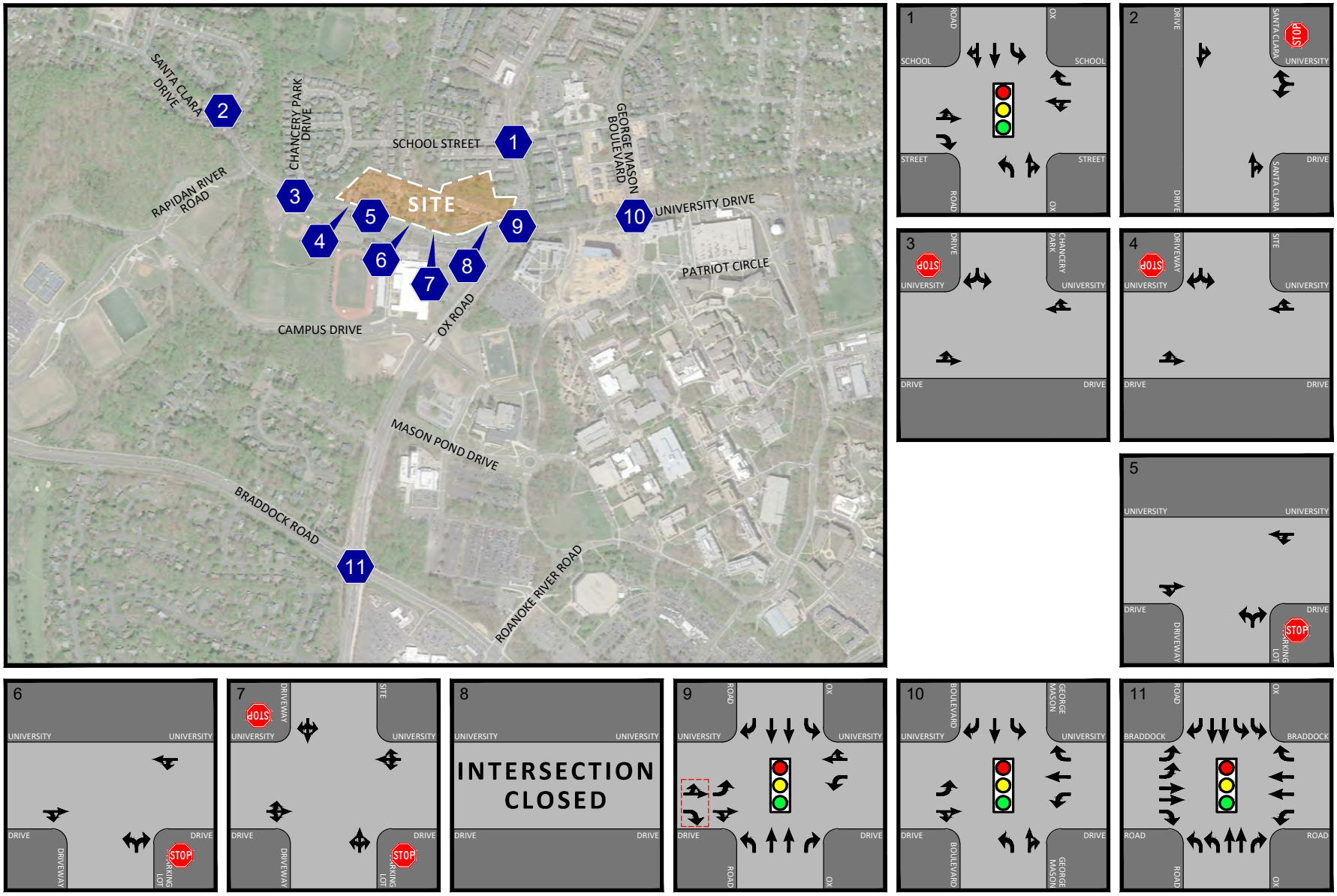

Figure 6-2

Future with Development Lane Use and Traffic Controls

Proposed Improvements

Represents One Travel Lane

Signalized Intersection

Stop Sign

NORTH

One University

Fairfax County, Virginia

O:\PROJECTS\7001 - 7500\7379 ONE UNIVERSITY\GRAPHICS\7379 - GRAPHICS - 2018 NOV.DWG

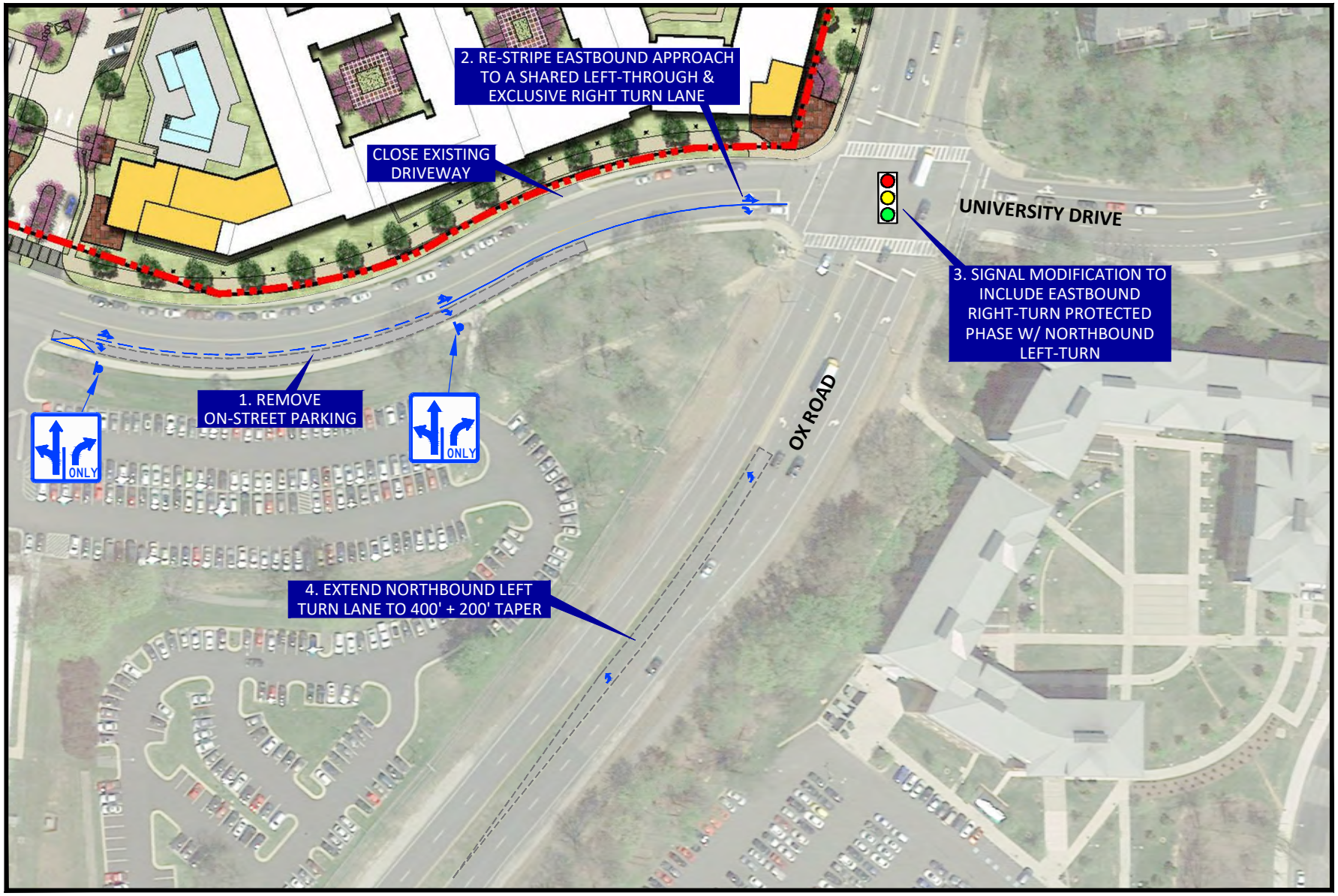

Figure 6-3
Roadway Improvement Recommendation

NORTH

One University
Fairfax County, Virginia

SECTION 7
DESIGN YEAR (2040) CONDITIONS WITH DEVELOPMENT

Traffic Volumes

Future (2040) traffic volumes were projected for the assuming buildout and full occupancy of the development. 2040 traffic volumes were generated by combining the 2022 existing traffic volumes, regional growth for 2022-2040 (Figure 7-1), existing site trips removed (Figure 5-1), and the new traffic expected to be generated by the site (Figure 5-2). The resulting traffic volume forecasts for year 2040 is shown on Figure 7-2.

Capacity Analysis

Future peak hour levels of service and 50th and 95th percentile queues with the proposed development are summarized in Tables 7-1 and 7-2, respectively. The results were based on the future 2040 traffic forecasts shown on Figure 7-2, the planned lane use and traffic controls shown on Figure 6-2, and the Highway Capacity Manual 2000 and 2010 methodology using Synchro 10, where applicable.

Levels of Service. The 2040 LOS results with the proposed development and is summarized in Table 7-1 and indicate the following:

- The signalized intersections, both overall and some individual movements, would continue to operate under similar conditions to the future (2022) results. Increased delays along Ox Road and Braddock Road.

Capacity analysis worksheets for 2040 future conditions with development are included in Appendix I.

Queues. The future peak hour queue results without the proposed development for the turning movements are presented in Appendix I and summarized in Table 7-2. As shown in Table 6-2, the estimated 50th and 95th percentile would operate generally consistent with 2022 future conditions with development throughout the study area. Slight increases in queueing would occur along Ox Road and Braddock Road as a result of additional traffic associated with regional growth.

Table 7-1
One University
Future Conditions with Development Intersection Level of Service Summary

Approach/ Lane Group	Existing Conditions (2018)				Future Conditions without Development (2022)				Future Conditions with Development (2022)				Future Conditions with Development (2040)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)
1. School Street & Ox Road/Chain Bridge Road - Signalized																
EBLT	E	63.1	D	50.0	E	62.8	D	53.0	E	62.8	D	53.0	E	62.8	D	53
EBR	E	58.6	D	48.9	E	58.7	D	51.8	E	58.7	D	51.8	E	58.7	D	51.8
WBLT	E	61.9	D	52.6	E	62.1	E	55.8	E	62.1	E	55.8	E	62.1	E	55.8
WBR	E	58.7	D	49.1	E	58.8	D	52.0	E	58.8	D	52.0	E	58.8	D	52
NBL	A	2.8	A	7.2	A	2.8	A	6.1	A	2.8	A	6.6	A	2.8	A	7.1
NBTR	A	6.0	A	8.7	A	6.1	A	7.4	A	6.5	A	7.6	A	6.7	A	7.7
SBL	A	3.1	A	5.0	A	3.2	A	4.0	A	3.6	A	4.1	A	3.8	A	4.2
SBTR	A	3.9	B	11.0	A	3.8	A	9.5	A	3.9	B	10.1	A	3.9	B	10.5
Overall	**A**	**8.9**	**B**	**12.8**	**A**	**8.8**	**B**	**11.5**	**A**	**8.9**	**B**	**11.7**	**A**	**8.9**	**B**	**11.9**
2. Santa Clara Drive/University Drive - Unsignalized																
WBLR	A	9.8	B	10.7	A	9.7	B	10.5	A	9.7	B	10.4	A	9.7	B	10.4
NBTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLT	A	7.6	A	7.5	A	7.6	A	7.5	A	7.6	A	7.5	A	7.6	A	7.5
3. Chancery Park Drive/University Drive - Unsignalized																
EBLT	A	7.6	A	8.0	A	7.6	A	7.9	A	7.6	A	7.9	A	7.6	A	7.9
WBTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	B	10.1	B	11.2	B	10.0	B	11.0	A	9.9	B	10.9	A	9.9	B	10.9
4. West Driveway & University Drive - Unsignalized																
EBLTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SBLR	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized																
EBLTR/EBTR	A	7.5	A	7.7	A	7.5	A	7.7	A	0.0	A	0.0	A	0.0	A	0.0
WBLTR/WBLT	A	7.5	A	7.5	A	7.5	A	7.5	A	0.0	A	0.0	A	0.0	A	0.0
NBLTR/NBLR	B	10.3	A	9.6	B	10.1	A	9.4	A	9.7	A	9.3	A	9.7	A	9.3
SBLTR	B	10.2	B	11.6	B	10.0	B	11.4	Closed				Closed			
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized																
EBLTR/EBTR	A	0.0	A	7.7	A	0.0	A	7.7	A	0.0	A	0.0	A	0.0	A	0.0
WBLTR/WBLT	A	7.5	A	7.6	A	7.5	A	7.6	A	0.0	A	0.0	A	0.0	A	0.0
NBLTR/NBLR	A	9.2	A	9.5	A	9.1	A	9.4	A	9.1	A	9.3	A	9.1	A	9.3
SBLTR	B	11.1	B	10.6	B	10.9	B	10.4	Closed				Closed			
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized																
EBLTR	A	0.0	A	7.7	A	0.0	A	7.7	A	7.7	A	8.2	A	7.7	A	8.2
WBLTR	A	7.8	A	7.8	A	7.7	A	7.7	A	7.7	A	7.7	A	7.7	A	7.7
NBLTR	A	9.3	B	10.0	A	9.2	A	9.8	A	9.1	A	9.8	A	9.1	A	9.8
SBLTR	C	15.4	B	10.8	B	14.5	B	10.6	D	26.8	C	24.4	D	26.8	C	24.4
8. University Plaza & Universiy Drive - Unsignalized																
EBLTR	A	7.9	A	0.0	A	7.8	A	0.0								
WBLTR	A	0.0	A	0.0	A	0.0	A	0.0	Closed				Closed			
SBLTR	B	11.6	B	13.5	B	11.3	B	12.9								
9. University Drive & Ox Road - Signalized																
EBL	D	45.7	D	47.5	D	44.1	D	47.6	D	42.6	D	46.0	D	43.6	D	46
EBTR	E	57.0	F	102.7	D	54.1	F	87.3	F	85.5	F	164.6	F	89.8	F	164.6
WBL	D	43.1	F	123.7	D	41.3	E	78.0	D	47.4	F	119.0	D	48.7	F	119
WBTR	D	47.6	D	38.6	D	45.8	D	37.9	D	52.3	D	41.6	D	53.4	D	41.6
NBL	C	25.1	D	39.7	C	23.6	D	41.9	C	24.4	F	117.7	C	24.7	F	134.3
NBT	D	54.2	D	40.1	D	51.5	D	40.5	D	54.3	D	40.8	E	60.5	D	41.5
NBR	D	47.0	D	38.4	D	43.3	D	38.4	D	49.9	D	39.7	D	50.5	D	39.8
SBL	E	69.3	C	29.2	E	64.0	C	29.5	E	66.7	C	30.8	E	70.5	C	31.2
SBT	C	24.7	D	49.7	C	24.2	D	51.8	C	25.7	E	62.0	C	25.8	E	68.3
SBR	C	21.9	C	32.2	C	21.5	C	32.2	C	23.4	D	40.6	C	23.3	D	40.5
Overall	**D**	**47.3**	**E**	**58.3**	**D**	**44.8**	**D**	**51.5**	**D**	**50.0**	**E**	**71.2**	**D**	**53.1**	**E**	**74.1**
Improvement[2]																
EBLT									E	67.0	E	62.7	E	70.6	E	62.7
EBR									D	49.5	D	47.0	D	51.9	D	46.7
WBL									D	52.6	F	90.0	E	56.7	F	98.2
WBTR									D	41.6	C	34.0	D	43.5	C	34.7
NBL									C	22.0	E	68.6	C	22.1	E	74.8
NBT									D	43.8	D	35.9	D	46	D	35.6
NBR									D	40.8	C	34.8	D	40.8	C	34
SBL									E	64.0	C	28.6	E	68.4	C	28.4
SBT									C	22.1	E	57.1	C	21.7	E	59.7
SBR									C	20.1	D	38.8	B	19.6	D	38.2
Overall									**D**	**42.5**	**D**	**52.4**	**D**	**44.1**	**D**	**54.4**
10. George Mason Boulevard & University Drive - Signalized																
EBL	B	13.4	B	13.3	B	13.3	B	13.2	B	13.3	B	13.2	B	13.3	B	13.2
EBTR	B	18.9	B	17.7	B	18.6	B	17.4	B	18.6	B	17.5	B	18.6	B	17.5
WBL	B	16.7	B	15.2	B	16.5	B	15.2	B	16.6	B	15.2	B	16.6	B	15.2
WBT	B	19.8	C	20.6	B	19.6	C	20.3	B	19.6	C	20.4	B	19.6	C	20.4
WBR	B	13.9	B	14.6	B	13.8	B	14.3	B	13.8	B	14.3	B	13.8	B	14.3
NBL	B	16.2	B	14.6	B	16.1	B	14.5	B	16.1	B	14.5	B	16.1	B	14.5
NBTR	C	20.3	C	20.6	C	20.1	C	20.4	C	20.1	C	20.4	C	20.1	C	20.4
SBL	B	13.8	B	14.2	B	13.5	B	14.1	B	13.5	B	14.1	B	13.5	B	14.1
SBT	B	17.8	B	19.1	B	17.5	B	19.0	B	17.5	B	19	B	17.5	B	19
SBR	B	11.3	B	13.7	B	11.2	B	13.7	B	11.2	B	13.7	B	11.2	B	13.7
Overall	**B**	**16.3**	**B**	**16.7**	**B**	**16.1**	**B**	**16.5**	**B**	**16.1**	**B**	**16.5**	**B**	**16.1**	**B**	**16.5**
11. Braddock Road & Ox Road - Signalized																
EBL	E	68.7	F	80.5	E	68.8	F	80.4	E	68.7	E	79.8	E	68.5	E	79.6
EBT	D	54.5	F	86.2	D	50.4	F	98.9	D	50.4	F	98.9	E	55.3	F	116.4
EBR	A	4.9	F	95.9	A	4.8	F	110.1	A	4.8	F	110.1	A	4.9	F	126.4
WBL	E	72.3	E	79.5	E	72.5	F	85.8	E	72.5	F	85.8	E	74	F	96.7
WBT	E	55.2	E	67.3	E	56.1	F	82.1	E	57.0	F	91.4	E	64.9	F	117.1
WBR	C	29.7	C	22.6	C	29.6	C	23.0	C	30.1	C	24.1	C	30.7	C	24.6
NBL	F	111.5	F	82.8	F	126.1	F	83.4	F	126.1	F	83.4	F	145.1	F	84.4
NBT	F	136.6	D	51.2	F	153.1	D	51.4	F	153.9	D	53.1	F	177.6	D	53.4
NBR	C	22.8	B	19.1	C	22.9	B	19.4	C	22.9	B	19.9	C	23	C	20.2
SBL	F	84.0	E	78.8	F	81.3	E	78.7	F	104.8	E	78	F	111.4	E	77.6
SBT	D	54.0	F	92.9	D	53.8	F	107.6	D	54.5	F	113.9	D	54.8	F	133.6
SBR	E	77.9	E	64.8	E	73.6	E	66.2	F	92.3	E	67.4	F	101.1	E	68.2
Overall	**E**	**78.6**	**E**	**76.5**	**F**	**83.8**	**F**	**86.7**	**F**	**85.4**	**F**	**89.4**	**F**	**96.1**	**F**	**104.1**

Notes:
1. Capacity analysis based on Highway Capacity Manual methodology, using Synchro 10.
2. Northbound left turn lane extended to 400 feet, removal of adjacent street parking, eastbound approach restriped to left-through and right, right turn overlap, and optimization of signal timing splits.

Table 7-2
One University
Future Conditions with Development Intersection Queuing Summary

Approach/ Lane Group	Storage Length (ft)	Existing Conditions (2018)				Future Conditions without Development (2022)				Future Conditions with Development (2022)				Future Conditions with Development (2040)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile	50th Pecentile	95th Pecentile
1. School Street & Ox Road/Chain Bridge Road - Signalized																	
EBLT	-	51	89	24	47	47	89	22	48	47	89	22	48	47	89	22	48
EBR	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WBLT	-	31	66	64	99	31	65	60	102	31	65	60	102	31	65	60	102
WBR	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NBL	150	0	2	3	12	0	2	3	11	0	2	3	11	0	2	3	11
NBTR	-	203	297	145	235	216	315	141	227	241	351	153	246	257	375	162	258
SBL	100	3	10	6	19	3	10	6	18	3	10	6	18	3	10	6	18
SBTR	-	49	124	220	502	47	126	215	499	48	131	241	557	51	137	260	600
2. Santa Clara Drive/University Drive - Unsignalized																	
WBLR	-	-	15	-	25	-	15	-	25	-	13	-	23	-	13	-	23
NBTR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SBLT	-	-	0	-	3	-	0	-	3	-	0	-	3	-	0	-	3
3. Chancery Park Drive/University Drive - Unsignalized																	
EBLT	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
WBTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	3	-	0	-	0	-	0	-	0	-	0	-	0
4. West Driveway & University Drive - Unsignalized																	
EBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
SBLR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
5. St Edwards Place/Lot P Driveway & University Drive - Unsignalized																	
EBLTR/EBTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR/WBLT	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
NBLTR/NBLR	-	-	0	-	3	-	0	-	3	-	0	-	3	-	0	-	3
SBLTR	-	-	3	-	0	-	3	-	0	CLOSED				CLOSED			
6. St Johns Place/Lot O Driveway & University Drive - Unsignalized																	
EBLTR/EBTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR/WBLT	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
NBLTR/NBLR	-	-	0	-	3	-	0	-	3	-	0	-	3	-	0	-	3
SBLTR	-	-	0	-	0	-	0	-	0	CLOSED				CLOSED			
7. St Johns Place/Lot M Driveway & University Drive - Unsignalized																	
EBLTR	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
WBLTR	-	-	8	-	3	-	8	-	3	-	5	-	3	-	5	-	3
NBLTR	-	-	5	-	10	-	5	-	10	-	5	-	10	-	5	-	10
SBLTR	-	-	3	-	0	-	3	-	0	-	90	-	48	-	90	-	48
8. University Plaza & Universiy Drive - Unsignalized																	
EBLTR	-	-	0	-	0	-	0	-	0	CLOSED				CLOSED			
WBLTR	-	-	0	-	0	-	0	-	0								
SBLTR	-	-	0	-	0	-	0	-	0								
9. University Drive & Ox Road - Signalized																	
EBL	-	39	69	31	56	36	70	29	56	116	176	64	105	116	176	64	105
EBTR	-	154	229	198	288	137	224	172	282	236	#415	231	#411	236	#415	231	#411
WBL	-	115	165	363	#506	106	164	326	#465	106	164	345	#563	106	164	345	#563
WBTR	160	60	110	118	178	53	108	106	177	58	113	120	193	58	113	120	193
NBL	170	92	142	118	202	89	137	117	203	97	151	~281	#485	97	151	~281	#482
NBT	-	742	#922	276	336	755	#941	285	348	743	#937	217	278	799	#1012	226	288
NBR	250	221	365	0	0	217	356	0	0	223	377	0	2	234	390	0	2
SBL	420	350	#503	113	166	315	#484	113	166	310	#481	113	166	310	#481	114	168
SBT	-	180	225	618	725	171	228	657	#801	170	227	664	#801	180	238	711	#865
SBR	120	0	0	0	0	0	0	0	0	0	0	11	80	0	0	11	80
Improvement[3]																	
EBLT	-									252	#378	165	253	252	#378	165	253
EBR	-									0	63	131	208	0	63	133	210
WBL	-									121	186	349	#458	121	186	352	#470
WBTR	-									54	106	102	165	54	106	103	167
NBL	400									86	127	245	#420	86	127	246	#426
NBT	-									693	803	99	123	745	861	102	126
NBR	250									220	353	0	2	225	358	0	2
SBL	420									307	#464	106	155	326	#495	104	153
SBT	-									150	191	657	#763	158	200	691	#813
SBR	120									0	20	16	86	0	20	15	85
10. George Mason Boulevard & University Drive - Signalized																	
EBL	820	43	114	26	60	40	110	24	60	40	110	24	60	0	0	24	60
EBTR	-	76	236	32	96	69	228	29	96	70	229	29	98	900	0	29	98
WBL	330	3	14	6	20	2	14	5	21	2	14	5	21	0	0	5	21
WBT	-	24	68	60	125	22	67	54	123	22	67	57	127	741	0	57	127
WBR	300	0	14	0	28	0	13	0	32	0	13	0	32	0	300	0	32
NBL	-	7	21	15	37	6	21	14	36	6	21	14	36	0	0	14	36
NBTR	-	24	58	48	104	21	57	45	99	21	57	45	100	229	0	45	100
SBL	300	47	87	32	69	42	85	30	64	42	85	30	65	0	300	30	65
SBT	-	37	93	52	108	33	93	50	102	33	93	50	103	410	0	50	103
SBR	300	0	16	0	29	0	17	0	28	0	17	0	29	0	300	0	29
11. Braddock Road & Ox Road - Signalized																	
EBL	715	111	143	74	110	107	148	77	113	111	153	95	135	0	715	99	139
EBT	-	647	689	~742	#883	608	714	~803	#943	608	714	~803	#943	998	0	~873	#1013
EBR	675	0	16	~711	#1022	0	18	~790	#1205	0	18	~790	#1205	0	675	~830	#1428
WBL	470	52	101	276	#430	53	103	289	#458	53	103	289	#458	0	470	305	#486
WBT	-	574	#766	~1005	#1185	587	#784	~1085	#1263	590	#788	~1105	#1289	836	0	~1200	#1384
WBR	-	37	95	20	53	39	97	23	57	44	106	31	70	0	0	34	75
NBL	380	~372	#499	193	252	~402	#529	201	261	~402	#529	201	261	0	320	212	#282
NBT	-	~793	#934	253	324	~840	#980	266	339	~842	#983	291	369	811	0	307	386
NBR	320	0	1	0	34	0	5	0	41	0	5	0	42	0	320	0	49
SBL	400	78	#121	63	m73	75	#127	65	m74	93	#169	75	m79	0	400	79	m80
SBT	-	138	177	~521	m#637	132	182	~562	m#697	151	203	~583	m#672	3090	0	~633	m#690
SBR	300	0	36	120	m152	0	42	138	m176	0	80	145	m166	0	300	161	m173

Notes:
1. ~ Volume exceeds capacity, queue is theoretically infinite.
2. # 95th percentile volume exceeds capacity, queue may be longer.
3. Northbound left turn lane extended to 400 feet, removal of adjacent street parking, eastbound approach restriped to left-through and right, right turn overlap, and optimization of signal timing splits.

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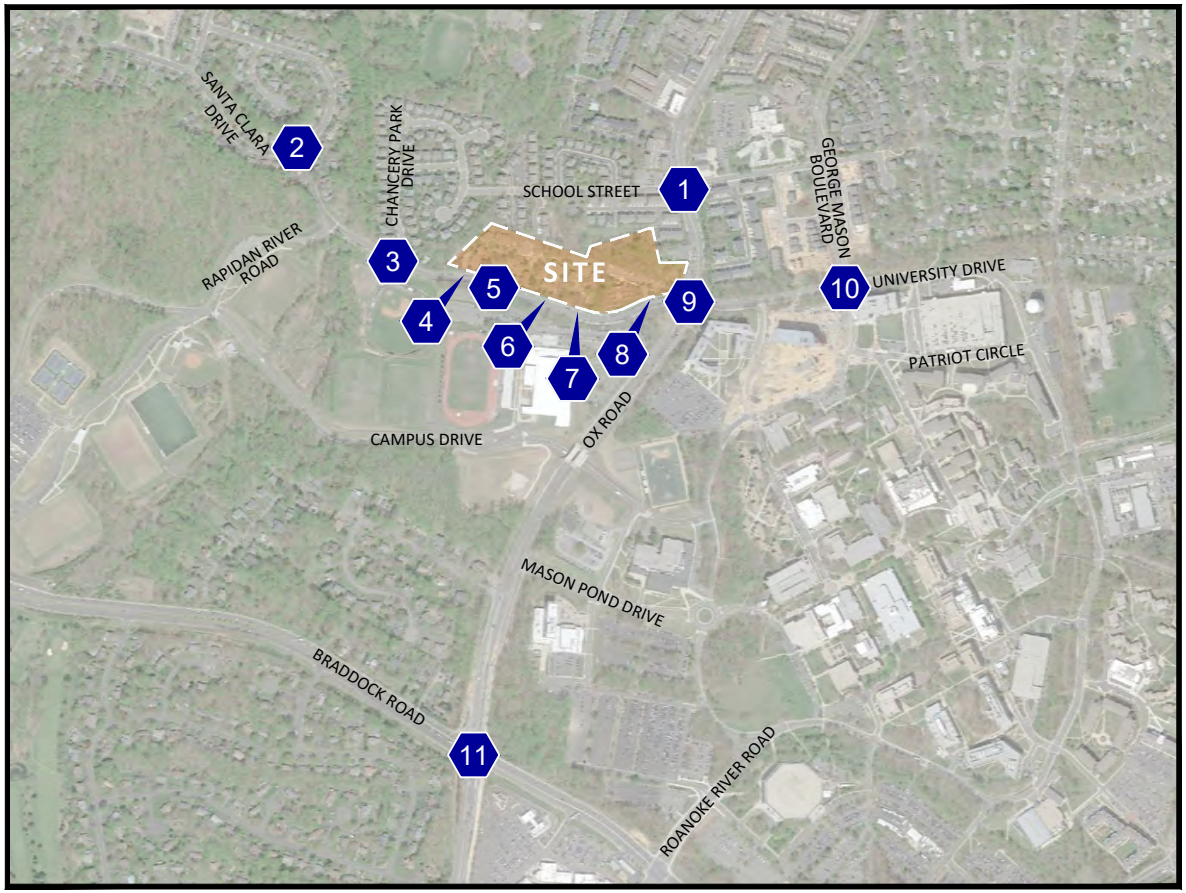
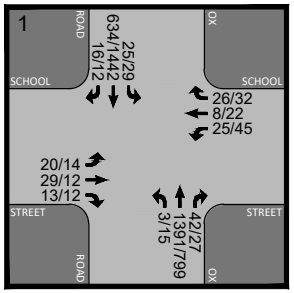
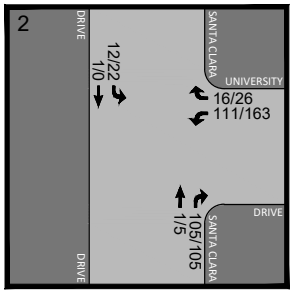
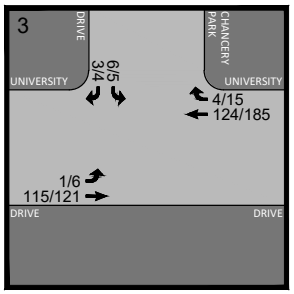
Figure 7-1
Regional Growth (2022-2040)

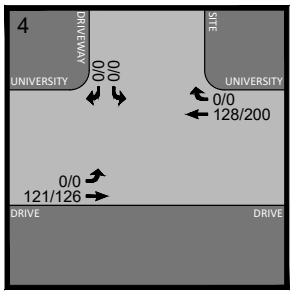
One University
Fairfax County, Virginia

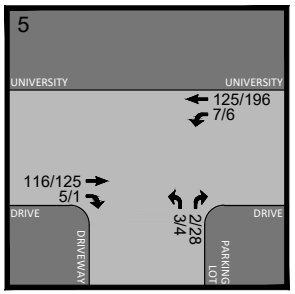


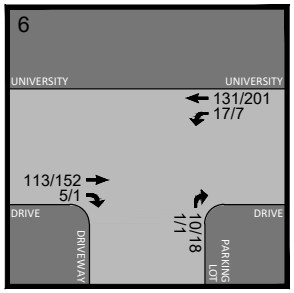


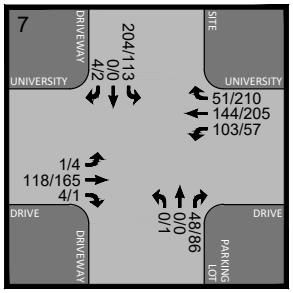


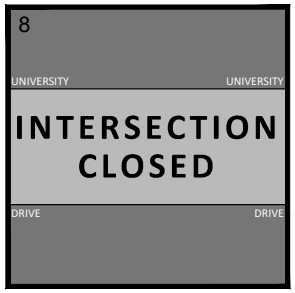


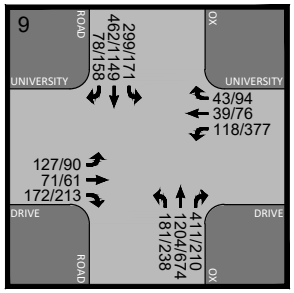


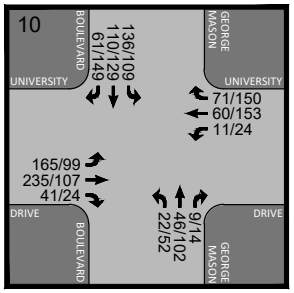












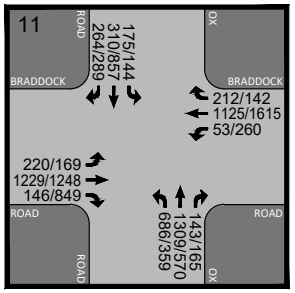


Figure 7-2

Future Peak Hour Traffic Forecasts with Development (2040)

AM PEAK HOUR
PM PEAK HOUR
000 / 000

NORTH

One University
Fairfax County, Virginia

SECTION 8
TRANSPORTATION DEMAND MANAGEMENT

In order to mitigate the potential impacts of the development and take full advantage of the Project's proximity to existing multimodal facilities, a key component of the Project will be the implementation of a comprehensive Transportation Demand Management (TDM) program.

In an effort to decrease reliance on the personal automobile and encourage the use of transit, ridesharing, bicycling, and walking, the Applicant should implement a TDM Program. TDM is a general term for strategies that result in more efficient use of transportation resources. There are many different TDM strategies with a variety of impacts. Some improve the transportation options available to consumers, while others provide an incentive to choose more efficient travel patterns. Some reduce the need for physical travel through mobility substitutes or more efficient land use. TDM strategies can change travel timing, route, destination, or mode.

The following strategies should be considered:

A. Designate a Transportation Management Coordinator (TMC) to implement the TDM program and advise residents of the availability and location of the TDM coordinator and program at least once a year. The position may be part of other duties assigned to the individual. Duties of the TMC would include the following:

1. Assist residents in making effective and efficient commuting choices.

2. Disseminate Metrorail, Fairfax Connector, CUE, ridesharing, and other relevant transit options to new residents, tenants and employees.

3. Solicit support from the Metropolitan Washington Council of Governments (MWCOG) Commuter Connections program, the Washington Metropolitan Area Transit Authority (WMATA), the Fairfax County government, and others.

4. Provide on-site assistance to residents in forming and maintaining carpools and vanpools.

5. Disseminate park-and-ride lot information to prospective carpoolers and vanpoolers.

6. Register carpool/vanpool participants, transit users, bicyclists, and walkers in the Guaranteed Ride Home (GRH) program.

7. Encourage residents and employees to ride bikes or walk to work.

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

B. Incentives to use transit, including:

1. Provide information on Metrorail, Fairfax Connector, CUE buses, 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. At the time of initial lease/sales, provide SmarTrip cards or other fare medium to residents.

4. Provide safe, convenient, and attractive pedestrian connections on and off-site.

5. Provide safe, secure bicycle parking for residents.

C. Parking management, including:

1. Reserve a number of conveniently-located, first-level, parking spaces for carpools, vanpools and hybrid vehicles.

2. Provide parking spaces on site for a car sharing service (i.e., Zip or Flex Car).

3. Unbundle the cost of a parking spaces for the rental fee of the residential uses.

In furtherance of the Plan goals for increased use of alternate modes, the Applicant is in the process of developing a strategic plan for the site. The strategic plan will be submitted under separate cover.

SECTION 9
CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this traffic impact analysis are as follows:

1. The existing signalized study intersections currently operate at levels of service (LOS) "D" or better during the AM and PM peak hours except for University Drive/Ox Road intersection during the PM peak hour and the Braddock Road/Ox Road intersection during the AM and PM peak hour. The University Drive/Ox Road intersection operates at capacity (LOS "E") during the PM peak hour. The Braddock Road/Ox Road intersection operates at capacity (LOS "E") during the AM and PM peak hour. All the approaches at the stop-controlled study intersections currently operate at LOS "D" or better during the AM and PM peak hours.

   The estimated 95th percentile queues of the northbound right and southbound left of University Drive/Ox Road and northbound left of the Braddock Road/Ox Road intersection currently exceed the available storage in the AM peak hour. The estimated 95th percentile queue of the westbound through-right and northbound left at the University Drive/Ox Road intersection and the eastbound right at the Braddock Road/Ox Road intersection currently exceeds the available storage during the PM peak hour.

2. In 2022 without the proposed development, all signalized intersections would operate at an overall LOS "D" or better with the exception of the Braddock Road/Ox Road intersection, consistent with the existing conditions. The overall LOS at the Braddock Road/Ox Road intersection degrades from LOS "E" to LOS "F". All approaches at stop-controlled study intersections would continue to operate at LOS "D" or better during the AM and PM peak hours.

   The estimated 95th percentile queues that extend storage length stay consistent with the existing conditions.

3. The Applicant is seeking to rezone the subject property and construct 100 senior dwelling units, 140 affordable dwelling units, and 362 student housing dwelling units. Using the multi-family apartment housing rates, per FCDOT and VDOT, the development is estimated to generate 260 AM peak hour trips, 327 PM peak hour trips and 3,416 daily trips upon completion by 2022. This assumes a 15 percent non-auto adjustment for the residential trips. Note that this is considered to be conservative since student housing and affordable housing typically generate fewer trips during the peak hours when compared to market rate housing.

4. In 2022 with the proposed development, all signalized study intersections would operate at overall acceptable LOS during the AM and PM peak hours with the exception of the Ox Road intersections at Braddock Road and University Drive.

   The estimated 95th percentile queues that extend storage length would remain consistent with those of the background without development.

5. Intersection improvements are recommended at the Ox Road/University Drive intersection to improve operations. These improvements include the removal of on-street parking along the south side of University Drive, the restriping of the eastbound approach, introducing an eastbound left-turn overlap phase, and lengthening the northbound left-turn lane. The proposed improvements, with additional traffic from the proposal, would achieve better LOS and less delay than the existing conditions today.

6. In 2040 with the proposed development, all signalized study intersections would continue to operate similarly to the 2022 conditions with development. Slight increases in delay would occur along Ox Road and Braddock Road as a result of increased regional growth.

7. The implement of a comprehensive Transportation Demand Management Plan will reinforce the expected vehicle trip reductions given the projects proximity to public transit options, other multimodal facilities, and GMU which minimize the project's vehicular traffic impacts.

APPENDIX A
SCOPING AGREEMENT

Virginia Department of Transportation

PRE-SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

The locality will need to send this form to the project applicant at least two (2) weeks prior to the scheduled scope of work meeting on the proposed project. The applicant is responsible for having this form completed and returned to VDOT and the locality no less than three (3) business days prior to the Meeting. If a completed form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information	
Consultant Name: Tele: E-mail:	Michael Pinkoske & John Schick Wells + Associates, Inc. mrpinkoske@wellsandassociates.com & jaschick@wellsandassociates.com Phone: (703) 917-6620
Developer/Owner Name: Tele: E-mail:	**RISE & SCG** Matt Marshall mmarshall@risere.com

Project Information	
Project Name:	**ONE UNIVERSITY** As confirmed by FCDOT, the proposed development **does not** meet Chapter 870 regulations.
Project Location: (Attach regional and site specific location map)	The subject site is located on the north side of University Drive to the west of Ox Road (VA 123) in Fairfax County. The parcels included are identified as Tax Map Numbers 57-3 ((1)) 11A and 11B and currently zoned PDH-5. The site location is shown on **Figure 1.**
Project Description: Including type of application (rezoning, subdivision, and site plan), acreage, business square ft, number of dwelling units, access location, etc. Attach additional sheet if necessary)	The Applicant, RISE & SCG, proposes to rezone the 10.7-acre site from PDH-5 to PRM (Planned Residential Mixed Use). The proposal would include razing the existing 46 residential units and 16,689 square feet (SF) of office and redevelop the site with approximately 100 age restricted affordable (55 years +) dwelling units, 140 affordable housing dwelling units, and a 360 dwelling unit student housing building. Access to/from the development would be provided via two (2) curb cuts on University Drive. An internal road network within the development will provide access to the various buildings. Structured parking would be provided for each residential building. A copy of the conceptual site plan is shown on **Figure 2.** *It is understood that George Mason University is in preliminary planning stages of redevelopment on the south side of University Drive. If possible, alignment of future access points will be coordinated.*
Locality/County:	Fairfax County, Virginia

Proposed Use:	Residential ■	Commercial ☐	Mixed Use ☐	Other ☐
See Tables 1 & 2 for Trip Generation	**Existing Uses:** 46 DU Multifamily Residential 16,689 SF Office **Proposed Uses:** 100 – 55+ Affordable Multifamily Residential Units 140 – Affordable Multifamily Residential Units 360 – Student Housing Units 5,400 SF Retail		ITE LU Code(s): **710, 220, 225, & 820**	

Traffic Impact Analysis Assumptions					
Study Period	Existing Year: 2018	Buildout Year: 2022		Design Year: 2040	
Study Area Boundaries	**North**: School Street		**South**: Braddock Road		
	West: West Site Driveway		**East:** George Mason Boulevard		
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	No approved pipeline developments or roadway improvement projects were identified in the vicinity of the site.				
Consistency With Comprehensive Plan	The proposal is consistent with the Fairfax Planning District and George Mason Community Planning Sector of the Fairfax County Comprehensive Plan.				
Available Traffic Data (Historical, forecasts)	VDOT 2017 Annual Average Daily Traffic Counts: (segment) **Ox Road:** 28,000 vehicles per day (vpd) (Fairfax City to Braddock Road) **University Drive:** 2,200 vehicles per day (University Drive to Santa Clara Drive) **Braddock Road:** 47,000 vehicles per day (Ox Road to Prestwick Drive)				
Trip Distribution (Attach sketch) SEE FIGURE 1	Road Name: **Ox Road**	**N 43%**	**S 20%**	E	W
	Road Name: **University Drive**	N	S	**E 5%**	**W 2%**
	Road Name: **Braddock Road**	N	S	**E 15%**	**W 15%**
Annual Vehicle Trip Growth Rate:	1.0% Annual Growth to Buildout Conditions 0.25 % Annual Growth to 2040 Conditions *Growth to be applied to all through movements along Braddock Road and Ox Road. Growth will be applied to all movements at the Braddock Road/Ox Road intersection.*		Peak Period for Study Weekday AM and PM peak hours.		

Study Intersections and/or Road Segments (Attach additional sheets as necessary)	Study Intersections: 1. School Street/Ox Road 2. University Drive/Santa Clara Drive 3. University Drive/Chancery Park Drive 4. University Drive/Site Driveways (5) 5. University Drive/Ox Road 6. University Drive/George Mason Boulevard 7. Braddock Road/Ox Road	
Trip Adjustment Factors	Internal allowance: ___ Yes ■ No	Pass-by allowance: ■ Yes ___No (AM: 25% / PM: 34%)
Software Methodology	■ **Synchro** ☐ HCS (v.2000/+) ☐ aaSIDRA ☐ CORSIM ☐ Other	
Traffic Signal Proposed or Affected	- School Street/Ox Road (existing) - University Drive/Ox Road (existing) - Braddock Road/Ox Road (existing)	
Improvement(s) Assumed or to be Considered	None.	
Plan Submission	☐ Master Development Plan (MDP) ☐ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ■ Conceptual Development Plan (CDP)	
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. Specific Synchro parameters will be applied to the model consistent with the VDOT Traffic Operations and Safety Analysis Manual (TOSAM), version 1.0. Microsimulation analysis will be provided if saturated conditions and met.

2. Synchro 10 will be used to conduct capacity analysis with peak hour factors measured in the field. The field measured PHFs will be adjusted to 0.85 < PHF under existing conditions. For future conditions (without and with development) analysis, minimum PHFs of 0.92 will be used.

3. Level of service calculations for existing (2018) and projected conditions shall be in accordance with the Highway Capacity Manual (HCM) 2010 methodologies, as computed by Synchro software. Typical Synchro parameters to be utilized in this analysis will be consistent with those values provided in VDOT's Traffic Operations and Safety Analysis Manual, Version 1.0.

4. Percent heavy vehicles used in the Synchro analysis will be based on traffic counts collected by W+A.

5. Pedestrian calls will be programmed into the Synchro model.

6. Traffic study to include VDOT Access Management information including an intersection spacing diagram.

7. Traffic study to include turn lane warrants at proposed site driveways.

SIGNED:

SIGNED: Michael R. Pinkoske DATE: 10.22.2018
Applicant or Consultant

SIGNED:

SIGNED: _____ DATE: 10/22/2018
Local Government Representative

SIGNED:

SIGNED: _____ DATE: _____
VDOT Representative

SIGNED: 

SIGNED: Michael R. Pinkoske DATE: 9.24.2018
Applicant or Consultant

SIGNED:

SIGNED: _____ DATE: _____
Local Government Representative

SIGNED: 

SIGNED: KEVIN NELSON DATE: 9/25/18
VDOT Representative

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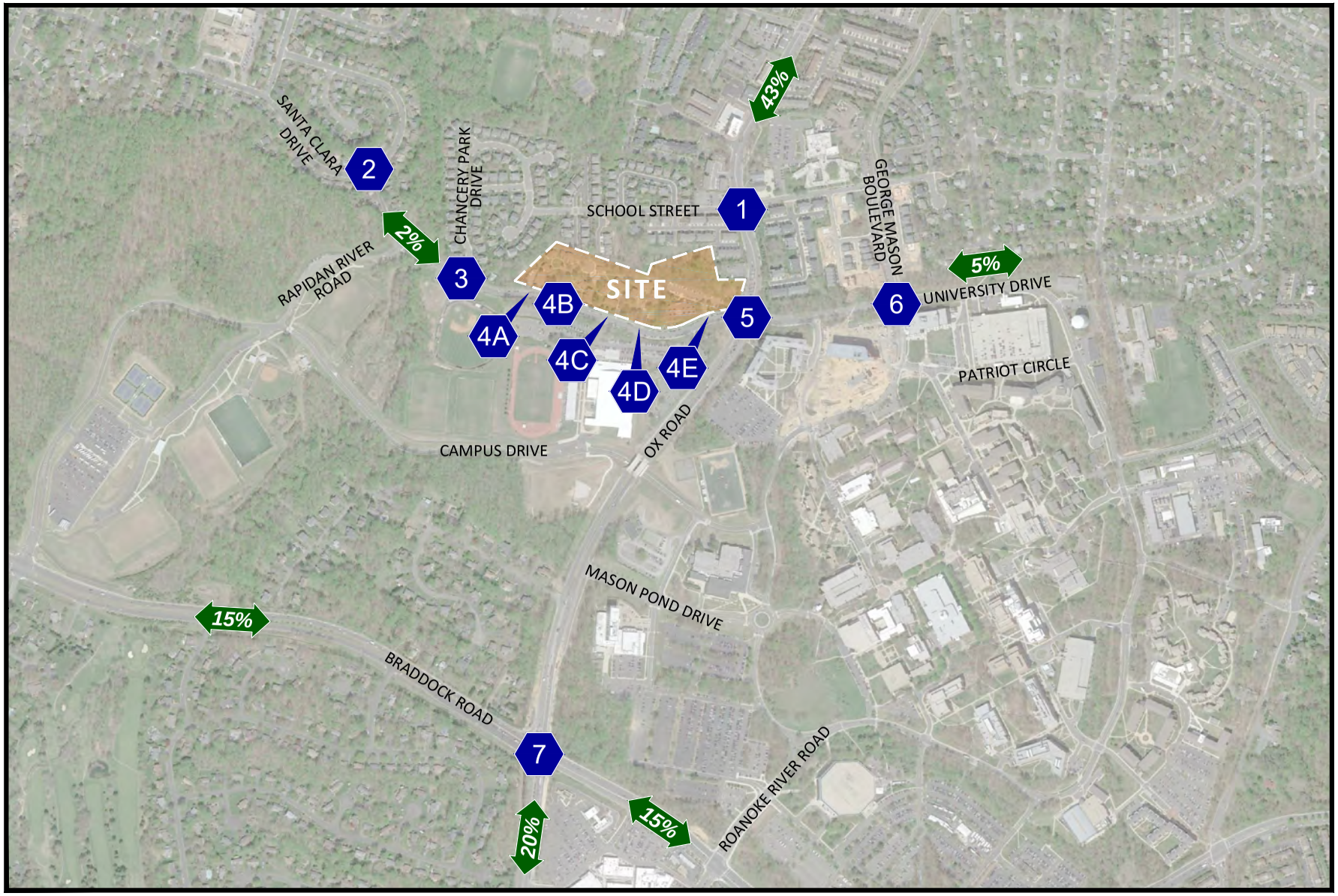

Figure 1
Site Location, Study Intersections, and Site Trip Distributions

X Study Intersection
XX% Site Trip Distributions

NORTH
One University
Fairfax County, Virginia

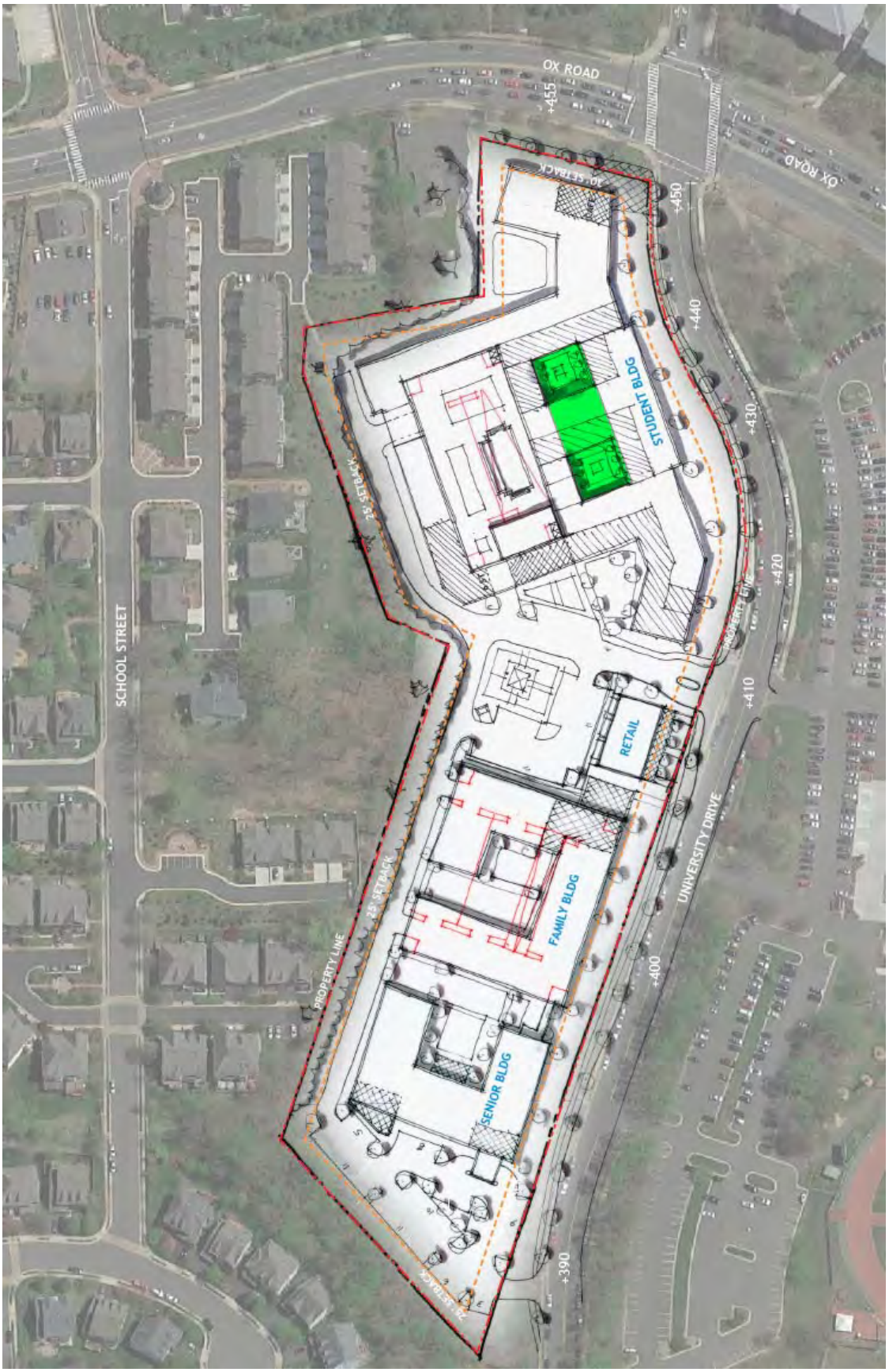

Figure 2 – Conceptual Site Plan

Table 1
One University
Trip Generation Analysis for TIA [1]

Land Use	ITE Code	Size	Units	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Conditions									
Residential (Affordable/55years+)	220	100	DU	11	42	53	47	26	73
Residential (Affordable)	220	140	DU	14	58	72	62	33	95
Residential (Student Housing)	220	360	DU	36	144	180	140	76	216
Total Residential Proposed Trips				**61**	**244**	**305**	**249**	**135**	**384**
Non-Auto Adjustment (15%)				(9)	(37)	(46)	(37)	(20)	(58)
Total Proposed Trips w/ Adjustments				**52**	**207**	**259**	**212**	**115**	**326**
Retail	820	5,400	SF	3	2	5	10	10	20
Pass-By Adjustment (AM:25% / PM:34%)				(1)	(1)	(2)	(3)	(3)	(6)
Total Retail Trips w/Adjustments				**2**	**1**	**3**	**7**	**7**	**14**
TOTAL SITE TRIPS				**54**	**208**	**262**	**219**	**121**	**340**

Notes:
1. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.

Table 2
One University
Trip Generation Analysis - Student Housing Comparison

Land Use	ITE Code	Size	Units	AM Peak Hour			PM Peak Hour		
				IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Conditions									
Residential (Student Housing) [1]	220	360	DU	36	144	180	140	76	216
Residential (Student Housing) [2]	225	814	Beds	36	51	87	99	99	198
Difference				-	(93)	(93)	(41)	23	(18)

Notes:
1. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.
2. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition.

APPENDIX B
COMPLIANCE LETTER

WELLS + ASSOCIATES

1420 Spring Hill Road
Suite 610
Tysons, Virginia 22102
703-917-6620
703-917-0739 FAX
www.mjwells.com

August 23, 2018

Ms. Michelle Guthrie
Fairfax County Department of Transportation
4050 Legato Road, 4th Floor
Fairfax, Virginia 22030

Re: One University
2017 Tax Map: 57-3 ((1)) 11A and 11B
VDOT Chapter 870 (formally 527) Regulations – Determination of Compliance

Dear Ms. Guthrie:

Wells + Associates has completed a trip generation assessment in support of a planned rezoning application for a proposed residential development in Fairfax County, Virginia. The site is located on the north side of University Drive to the west of the University Drive/Ox Road (VA 123) intersection. Access to the site is proposed to be provided via two (2) driveways on University Drive.

The property is identified as Fairfax County 2018 Tax Map 57-3 ((1)) 11A and 11B and is located in the Braddock District of the county. A CDP/FDP will be submitted for the subject site.

The Applicant proposes to raze the existing 46 residential dwelling units and 16,689 square feet (SF) of office and redevelop the site with 100 age restricted affordable (55 years +) dwelling units, 140 affordable housing dwelling units, and a 300 dwelling unit student housing building. Access to the site would continue via the curb cuts on University Drive. An internal roadway network would provide local access to individual parcels.

Chapter 870 Compliance

To demonstrate compliance with the requirements of 24 VAC 30-155, trips associated with the proposed development were estimated and compared to the criteria set forth in the regulations. According to the regulations, trip generation calculations must meet the following trip criteria[1]:

- Shall be based upon the rates or equations published in the Institute of Transportation Engineers [ITE] Trip Generation (described in the Reference Documents chapter, page 73) or, if approved by VDOT, from alternative published guides or local trip generation studies.
- Shall *not be reduced* through internal capture rates, pass by rates, or any other reduction methods. The opportunity to properly use these reduction rates will be provided in the traffic impact analysis itself.

- For *redevelopment sites only* (defined in the Definitions chapter on page 5), when the existing use is to be developed as a different or denser use, trips currently generated by the existing

[1] VDOT, Updated Traffic Impact Analysis Regulations Administrative Guidelines – 24 VAC 30-155, June 2017.

development that will be removed may be deducted from the total trips that will be generated by the proposed land use (24VAC30-155-40 A).

As discussed in 24 VAC 30-155, a traffic impact study is required for a proposal that will generate more than 5,000 vehicle trips per day at the site's connection to the state highway.

Trip generation estimates for the existing and proposed uses, as required above, were determined based on the Institute of Transportation Engineer's (ITE's), Trip Generation Manual, 9th Edition rates/equations (Land Use Codes 710 and 220). All of the residential trips were calculated using the general multifamily equations to provide the most conservative estimates of trip generation. As shown on Table 1, the existing uses would generate approximately 586 weekday average daily trips while the proposed development would generate approximately 3,644 weekday average daily trips. As a result, the proposed development would generate approximately *3,058 additional weekday average daily trips* when compared to existing uses. These trip estimates are based on un-factored rates and do not include any non-auto mode split reductions.

Conclusion

Given that the net new trips generated by the proposed development would be less than the 5,000 vehicles per day trip threshold established by VDOT, the proposed development would not be considered to substantially affect the surrounding transportation network. Therefore, the application would satisfy the requirement and therefore **would not** require the submission of a Chapter 870 traffic impact analysis to VDOT. We look forward to your concurrence.

Questions regarding this document should be directed to Wells + Associates at 703-917-6620.

Sincerely,

Michael Pinkoske, PTP
Senior Associate

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Table 1
One University
VDOT Chapter 870 Compliance Trip Generation Analysis [1]

Land Use	ITE Code	Size	Units	AM Peak Hour			PM Peak Hour			Weekday
				IN	OUT	TOTAL	IN	OUT	TOTAL	ADT
Existing Conditions										
Residential	220	46	DU	5	21	26	28	15	43	402
Office	710	16,689	SF	23	3	26	4	21	25	184
Total Existing Trips				**28**	**24**	**52**	**32**	**36**	**68**	**586**
Proposed Conditions										
Residential (Affordable/55years+)	220	100	DU	11	42	53	47	26	73	730
Residential (Affordable)	220	140	DU	14	58	72	62	33	95	972
Residential (Student Housing)	220	300	DU	30	121	151	119	64	183	1,942
Total Proposed Trips				**55**	**221**	**276**	**228**	**123**	**351**	**3,644**
Summary										
Total Existing Trips				28	24	52	32	36	68	586
Total Proposed Trips				55	221	276	228	123	351	3,644
Net New Trips (Existing vs Proposed)				**27**	**197**	**224**	**196**	**87**	**283**	**3,058**

Notes:
1. Trips generated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition.

APPENDIX C
TRANSIT INFORMATION

Green 1 Weekdays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Main Street & Pickett Road	GMU Campus	Fairfax Blvd & Chain Bridge Rd	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						Arrives
			5:30A	5:38A	5:46A	6:00A
			6:05A	6:13A	6:21A	6:35A
6:15A	6:26A	6:33A	6:47A	6:54A	7:02A	7:14A
6:45A	6:56A	7:03A	7:17A	7:24A	7:32A	7:44A
7:19A	7:30A	7:37A	7:51A	8:01A	8:11A	8:23A
7:49A	8:00A	8:07A	8:21A	8:31A	8:41A	8:53A
8:28A	8:40A	8:47A	9:01A	9:11A	9:19A	9:31A
8:58A	9:10A	9:17A	9:31A	9:41A	9:49A	10:01A
9:36A	9:48A	9:55A	10:09A	10:19A	10:27A	10:39A
10:06A	10:18A	10:25A	10:39A	10:49A	10:57A	11:09A
10:44A	10:56A	11:03A	11:17A	11:27A	11:35A	11:47A
11:14A	11:26A	11:33A	11:47A	11:57A	12:05A	12:17P
11:52A	12:04A	12:11A	12:25A	12:35P	12:43P	12:55P
12:22P	12:34P	12:41P	12:55P	1:05P	1:13P	1:25P
1:00P	1:12P	1:19P	1:33P	1:43P	1:51P	2:03P
1:30P	1:42P	1:49P	2:03P	2:13P	2:21P	2:33P
2:08P	2:20P	2:27P	2:41P	2:51P	2:59P	3:11P
2:38P	2:50P	2:57P	3:11P	3:21P	3:29P	3:41P
3:16P	3:28P	3:35P	3:49P	4:01P	4:09P	4:21P
3:46P	3:58P	4:05P	4:19P	4:31P	4:39P	4:51P
4:26P	4:38P	4:45P	4:59P	5:11P	5:19P	5:31P
4:56P	5:08P	5:15P	5:29P	5:41P	5:49P	6:01P
5:36P	5:48P	5:55P	6:09P	6:21P	6:29P	6:41P
6:06P	6:18P	6:25P	6:39P	6:51P	6:59P	7:11P
6:46P	6:58P	7:05P	7:19P	7:31P	7:39P	7:51P
7:56P	8:08P	8:15P	8:29P	8:39P	8:46P	8:58P
9:03P	9:15P	9:22P	9:36P	9:44P	9:51P	10:03P
10:08P	10:18P	10:25P	10:35P	10:43P	10:50P	11:00P

Green 2 Weekdays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Fairfax Blvd & Chain Bridge Rd	GMU Campus	Main Street & Pickett Road	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						Arrives
			5:15A	5:28A	5:35A	5:49A
			5:50A	6:03A	6:10A	6:24A
6:00A	6:11A	6:19A	6:29A	6:43A	6:50A	7:02A
6:30A	6:41A	6:49A	6:59A	7:13A	7:20A	7:32A
7:07A	7:18A	7:26A	7:36A	7:50A	7:57A	8:09A
7:37A	7:49A	7:57A	8:07A	8:21A	8:28A	8:40A
8:14A	8:26A	8:34A	8:44A	8:58A	9:05A	9:17A
8:45A	8:57A	9:05A	9:15A	9:29A	9:36A	9:48A
9:22A	9:34A	9:42A	9:52A	10:06A	10:13A	10:25A
9:53A	10:05A	10:13A	10:23A	10:37A	10:44A	10:56A
10:30A	10:42A	10:50A	11:00A	11:14A	11:21A	11:33A
11:01A	11:13A	11:21A	11:31A	11:45A	11:52A	12:04A
11:38A	11:50A	11:58A	12:08P	12:22P	12:29P	12:41P
12:09P	12:21P	12:29P	12:39P	12:53P	1:00P	1:12P
12:46P	12:58P	1:06P	1:16P	1:30P	1:37P	1:49P
1:17P	1:29P	1:37P	1:47P	2:01P	2:08P	2:20P
1:54P	2:06P	2:14P	2:24P	2:38P	2:45P	2:57P
2:25P	2:37P	2:45P	2:55P	3:09P	3:16P	3:28P
3:02P	3:14P	3:22P	3:32P	3:46P	3:53P	4:05P
3:33P	3:45P	3:53P	4:03P	4:17P	4:24P	4:36P
4:10P	4:22P	4:32P	4:42P	4:56P	5:03P	5:15P
4:41P	4:53P	5:01P	5:11P	5:25P	5:32P	5:44P
5:20P	5:32P	5:42P	5:52P	6:06P	6:13P	6:25P
5:49P	6:01P	6:09P	6:19P	6:33P	6:40P	6:52P
6:30P	6:42P	6:52P	7:02P	7:16P	7:23P	7:35P
7:40P	7:52P	8:00P	8:10P	8:24P	8:31P	8:43P

Note: on MLK Day, Presidents' Day, Veterans' Day and the day after Thanksgiving, only unshaded portion of the schedule is used.

Green 1 Saturdays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Main Street & Pickett Road	GMU Campus	Fairfax Blvd & Chain Bridge Rd	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						Arrives
8:25 A	8:37 A	8:44 A	8:57 A	9:05 A	9:13 A	9:25 A
9:30 A	9:42 A	9:49 A	10:02 A	10:10 A	10:18 A	10:30 A
10:35 A	10:47 A	10:54 A	11:07 A	11:15 A	11:23 A	11:35 A
11:50 A	12:02 P	12:09 P	12:22 P	12:30 P	12:38 P	12:50 P
12:55 P	1:07 P	1:14 P	1:27 P	1:35 P	1:43 P	1:55 P
2:00 P	2:12 P	2:19 P	2:32 P	2:40 P	2:48 P	3:00 P
3:05 P	3:17 P	3:24 P	3:37 P	3:45 P	3:53 P	4:05 P
4:10 P	4:22 P	4:29 P	4:42 P	4:50 P	4:58 P	5:10 P
5:25 P	5:37 P	5:44 P	5:57 P	6:06 P	6:13 P	6:25 P
6:30 P	6:42 P	6:49 P	7:02 P	7:10 P	7:18 P	7:30 P
7:35 P	7:47 P	7:54 P	8:07 P	8:15 P	8:23 P	8:35 P

Green 2 Saturdays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Fairfax Blvd & Chain Bridge Rd	GMU Campus	Main Street & Pickett Road	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						Arrives
8:02 A	8:14 A	8:22 A	8:30 A	8:43 A	8:50 A	9:02 A
9:07 A	9:19 A	9:27 A	9:35 A	9:48 A	9:55 A	10:07 A
10:12 A	10:24 A	10:32 A	10:40 A	10:53 A	11:00 A	11:12 A
11:27 A	11:39 A	11:47 A	11:55 A	12:08 P	12:15 P	12:27 P
12:32 P	12:44 P	12:52 P	1:00 P	1:13 P	1:20 P	1:32 P
1:37 P	1:49 P	1:57 P	2:05 P	2:18 P	2:25 P	2:37 P
2:42 P	2:54 P	3:02 P	3:10 P	3:23 P	3:30 P	3:42 P
3:47 P	3:59 P	4:07 P	4:15 P	4:28 P	4:35 P	4:47 P
4:52 P	5:04 P	5:12 P	5:20 P	5:33 P	5:40 P	5:52 P
6:07 P	6:19 P	6:27 P	6:35 P	6:48 P	6:55 P	7:07 P
7:12 P	7:24 P	7:32 P	7:40 P	7:53 P	8:00 P	8:12 P

Green 1 Sundays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Main Street & Pickett Road	GMU Campus	Fairfax Blvd & Chain Bridge Rd	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						**Arrives**
10:00 A	10:12 A	10:19 A	10:32 A	10:40 A	10:48 A	11:00 A
11:05 A	11:17 A	11:24 A	11:37 A	11:45 A	11:53 A	12:05 P
12:10 P	12:22 P	12:29 P	12:42 P	12:50 P	12:58 P	1:10 P
1:40 P	1:52 P	1:59 P	2:12 P	2:20 P	2:28 P	2:40 P
2:45 P	2:57 P	3:04 P	3:17 P	3:25 P	3:33 P	3:45 P
3:50 P	4:02 P	4:09 P	4:22 P	4:30 P	4:38 P	4:50 P
4:55 P	5:07 P	5:14 P	5:27 P	5:35 P	5:43 P	5:55 P

Green 2 Sundays

Vienna Metro/ Fairfax-GMU	Fairfax Circle	Fairfax Blvd & Chain Bridge Rd	GMU Campus	Main Street & Pickett Road	Fairfax Circle	Vienna Metro/ Fairfax-GMU
Departs						**Arrives**
9:37 A	9:49 A	9:57 A	10:05 A	10:18 A	10:25 A	10:37 A
10:42 A	10:54 A	11:02 A	11:10 A	11:23 A	11:30 A	11:42 A
11:47 A	11:59 A	12:07 P	12:15 P	12:28 P	12:35 P	12:47 P
1:17 P	1:29 P	1:37 P	1:45 P	1:58 P	2:05 P	2:17 P
2:22 P	2:34 P	2:42 P	2:50 P	3:03 P	3:10 P	3:22 P
3:27 P	3:39 P	3:47 P	3:55 P	4:08 P	4:15 P	4:27 P
4:32 P	4:44 P	4:52 P	5:00 P	5:13 P	5:20 P	5:32 P

HOLIDAY SERVICE

Holiday	Type of Service
New Year's Day	None
Martin Luther King	Modified Weekday**
President's Day	Modified Weekday**
Memorial Day	Saturday
Independence Day	Special*
Labor Day	Saturday
Columbus Day	Regular
Veterans Day	Modified Weekday**
Thanksgiving Day	None
Day after	Modified Weekday**
December 24	Normal weekday schedule, except that all CUE services will end at 7:00 p.m.
Christmas Day	None

*CUE buses provide extensive special event service within the city during its Independence Day activities; therefore, no regular service is provided July 4.

**Modified weekday service will consist of one bus on each route. Refer to the unshaded portion of the weekday schedule for holidays.

FARES: Regular fare is $1.80, or $1.60 when using a SmarTrip card. All George Mason University students, faculty and staff presenting a proper GMU ID ride free. A reduced fare of 85¢ is charged to all high school students possessing a proper ID (issued by the City or School), all elementary and intermediate students, and all senior citizens age 60 and older presenting a City or Metro ID. Please note that riders using a SmarTrip card to pay for their fare will NOT receive a discounted fare. Senior citizens and high school students may apply for City IDs by downloading and completing an application form from the website, or by contacting the Transportation Division at 703-385-7859 (TTY: 711). For more information about Metro ID call 202-962-1245.

Persons with disabilities may also ride for 85¢ with a City or Metro ID. People with a Metro Access ID card ride free. Children age three and younger accompanied by an adult may ride free.

EXACT FARE IS REQUIRED; DRIVERS DO NOT CARRY CHANGE. METRO SMARTRIP CARDS ARE ACCEPTED.

ROUTES: Four bus routes operate during weekdays and weekends according to the published schedules. The Green 1 and Gold 1 routes operate in a clockwise direction, while the Green 2 and Gold 2 run counter clockwise (see Route Map).

NEXT BUS:
For real-time bus arrival information, call 703.385.7859 (TTY 711) or go to www.fairfaxva.gov/NextBus

TRANSFERS: When using a Smartrip card, transfers are automatically computed and may be used to transfer to/from any CUE bus, any Metrobus or other regional bus systems, or Metrorail at a reduced fare. Paper transfers are no longer valid. Transfers must be made within a two hour limit.

BUS STOPS: CUE bus stop signs are posted at convenient locations along all routes. Buses will only stop at designated bus stops. You should plan to be at your stop at least five (5) minutes ahead of the bus's scheduled arrival.

INFORMATION:
Visit http://www.cuebus.org/ or call 703-385-7859 (TTY: 711)

SERVICE FOR PERSONS WITH DISABILITIES: Specialized transportation services for individuals who are unable to use the CUE Bus because of a disability are provided through the CITY WHEELS and METRO ACCESS programs. For a wheelchair lift equipped bus, 24-hour advance notice is preferred, please call 703.385.7859 (TTY 711).

CITY WHEELS: City Wheels is a City of Fairfax program that provides alternative transportation within the City, to the Vienna/Fairfax-GMU Metrorail station, to George Mason University, and to Fair Oaks Hospital for city residents who are disabled and find it difficult or impossible to use conventional bus service. City Wheels service is provided through private taxicabs. The fare for this service is $3.20. To apply for the City Wheels program, please download the City Wheels Application. For more information, please call 703-385-7859 (TTY 711).

METRO ACCESS: Metro Access is a paratransit service for the Washington Metropolitan Area, operated by the Washington Metropolitan Area Transit Authority (WMATA). Any city resident who is certified as disabled by Metro Access may avail of this service for trips outside the City of Fairfax city limits. The fare for this service is $3.00, plus a zone-based fee for distance. The maximum fare is $6.50. For more information, click here, or call 301-562-5360.

Gold 1 Weekdays

Vienna/Fairfax-GMU Metro	Fairfax High School	GMU Campus	Jermantown Rd & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Draper Dr & Fairfax Blvd	Vienna/Fairfax-GMU Metro Station
Departs						Arrives
			5:40A	5:46A	5:50A	5:59A
			6:10A	6:16A	6:22A	6:29A
6:04A	6:12A	6:25A	6:36A	6:47A	6:51A	7:03A
6:34A	6:42A	6:55A	7:06A	7:17A	7:26A	7:33A
7:08A	7:16A	7:25A	7:44A	7:53A	7:56A	8:03A
7:38A	7:46A	7:55A	8:12A	8:21A	8:27A	8:34A
8:08A	8:18A	8:29A	8:46A	8:56A	9:02A	9:12A
8:39A	8:49A	9:00A	9:15A	9:25A	9:29A	9:39A
9:17A	9:27A	9:40A	9:55A	10:04A	10:08A	10:18A
9:44A	9:54A	10:07A	10:22A	10:31A	10:35A	10:45A
10:23A	10:33A	10:46A	11:01A	11:10A	11:14A	11:24A
10:50A	11:00A	11:13A	11:28A	11:37A	11:41A	11:51A
11:29A	11:39A	11:52A	12:07P	12:16P	12:20P	12:30P
11:56A	12:06P	12:19P	12:34P	12:43P	12:47P	12:57P
12:35P	12:45P	12:58P	1:13P	1:22P	1:26P	1:36P
1:02P	1:12P	1:26P	1:40P	1:49P	1:53P	2:03P
1:41P	1:51P	2:04P	2:19P	2:28P	2:32P	2:42P
2:08P	2:18P	2:31P	2:46P	2:55P	2:59P	3:09P
2:47P	2:57P	3:10P	3:25P	3:34P	3:38P	3:48P
3:14P	3:24P	3:37P	3:52P	4:01P	4:05P	4:15P
3:53P	4:03P	4:16P	4:31P	4:40P	4:44P	4:54P
4:20P	4:30P	4:43P	4:58P	5:07P	5:11P	5:21P
4:59P	5:09P	5:22P	5:37P	5:46P	5:50P	6:00P
5:26P	5:36P	5:49P	6:04P	6:13P	6:17P	6:27P
6:05P	6:15P	6:28P	6:43P	6:52P	6:56P	7:06P
6:32P	6:42P	6:55P	7:10P	7:19P	7:23P	7:33P
7:11P	7:21P	7:34P	7:49P	7:58P	8:02P	8:12P
8:17P	8:27P	8:40P	8:53P	9:02P	9:06P	9:13P
9:18P	9:28P	9:41P	9:54P	10:03P	10:07P	10:14P
10:19P	10:27P	10:37P	10:50P	10:59P	11:03P	11:10P

Gold 2 Weekdays

Vienna/Fairfax-GMU Metro Station	Draper Dr & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Jermantown Rd & Fairfax Blvd	GMU Campus	Fairfax High School	Vienna/Fairfax-GMU Metro Station
Departs						Arrives
			5:25A	5:37A	5:49A	5:57A
			5:55A	6:07A	6:17A	6:27A
6:02A	6:09A	6:13A	6:21A	6:33A	6:44A	6:53A
6:32A	6:39A	6:43A	6:51A	7:03A	7:14A	7:24A
6:58A	7:05A	7:09A	7:18A	7:34A	7:45A	7:55A
7:29A	7:36A	7:40A	7:49A	8:05A	8:16A	8:26A
8:00A	8:07A	8:11A	8:20A	8:36A	8:47A	8:57A
8:31A	8:38A	8:42A	8:51A	9:07A	9:18A	9:28A
9:02A	9:09A	9:13A	9:22A	9:38A	9:49A	9:59A
9:33A	9:40A	9:44A	9:53A	10:09A	10:20A	10:30A
10:04A	10:14A	10:18A	10:27A	10:43A	10:54A	11:04A
10:35A	10:45A	10:49A	10:58A	11:14A	11:25A	11:35A
11:09A	11:19A	11:23A	11:32A	11:48A	11:59A	12:09P
11:40A	11:50A	11:54A	12:03P	12:19P	12:30P	12:40P
12:14P	12:24P	12:28P	12:37P	12:53P	1:04P	1:14P
12:45P	12:55P	12:59P	1:08P	1:24P	1:35P	1:45P
1:19P	1:29P	1:33P	1:44P	1:58PP	2:09P	2:19P
1:50P	2:00P	2:04P	2:13P	2:29P	2:40P	2:50P
2:24P	2:34P	2:39P	2:48P	3:04P	3:15P	3:25P
2:55P	3:05P	3:10P	3:19P	3:35P	3:46P	3:56P
3:30P	3:40P	3:45P	3:54P	4:09P	4:20P	4:30P
4:01P	4:11P	4:17P	4:27P	4:43P	4:54P	5:04P
4:35P	4:45P	4:51P	5:01P	5:17P	5:28P	5:38P
5:09P	5:19P	5:25P	5:35P	5:51P	6:02P	6:12P
5:43P	5:53P	5:59P	6:09P	6:25P	6:37P	6:47P
6:17P	6:27P	6:33P	6:43P	6:59P	7:10P	7:20P
6:52P	7:02P	7:08P	7:18P	7:34P	7:45P	7:55P
8:00P	8:10P	8:15P	8:23P	8:37P	8:47P	8:57P
9:02P	9:12P	9:17P	9:25P	9:37P	9:47P	9:57P

Note: on MLK Day, Presidents' Day, Veterans' Day and the day after Thanksgiving, only unshaded portion of the schedule is used.

Gold 1 Saturdays

Vienna/Fairfax-GMU Metro	Fairfax High School	GMU Campus	Jermantown Rd & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Draper Dr & Fairfax Blvd	Vienna/Fairfax-GMU Metro Station
Departs						Arrives
8:25 A	8:33 A	8:45 A	8:58 A	9:07 A	9:14 A	9:21 A
9:26 A	9:34 A	9:46 A	9:59 A	10:08 A	10:15 A	10:22 A
10:27 A	10:35 A	10:47 A	11:00 A	11:09 A	11:16 A	11:23 A
11:38 A	11:46 A	11:58 A	12:11 P	12:20 P	12:27 P	12:34 P
12:39 P	12:47 P	12:59 P	1:12 P	1:21 P	1:28 P	1:35 P
1:40 P	1:48 P	2:00 P	2:13 P	2:22 P	2:29 P	2:36 P
2:41 P	2:49 P	3:01 P	3:14 P	3:23 P	3:30 P	3:37 P
3:42 P	3:50 P	4:02 P	4:15 P	4:24 P	4:31 P	4:38 P
4:43 P	4:51 P	5:03 P	5:16 P	5:25 P	5:32 P	5:39 P
5:54 P	6:02 P	6:14 P	6:27 P	6:36 P	6:43 P	6:50 P
6:55 P	7:03 P	7:15 P	7:28 P	7:37 P	7:44 P	7:51 P
7:56 P	8:04 P	8:16 P	8:29 P	8:38 P	8:45 P	8:52 P

Gold 2 Saturdays

Vienna/Fairfax-GMU Metro Station	Draper Dr & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Jermantown Rd & Fairfax Blvd	GMU Campus	Fairfax High School	Vienna/Fairfax-GMU Metro Station
Departs						Arrives
8:00 A	8:07 A	8:14 A	8:23 A	8:36 A	8:48 A	8:56 A
9:01 A	9:08 A	9:15 A	9:24 A	9:37 A	9:49 A	9:57 A
10:02 A	10:09 A	10:16 A	10:25 A	10:38 A	10:50 A	10:58 A
11:13 A	11:20 A	11:27 A	11:36 A	11:49 A	12:01 P	12:09 P
12:14 P	12:21 P	12:28 P	12:37 P	12:50 P	1:02 P	1:10 P
1:15 P	1:22 P	1:29 P	1:38 P	1:51 P	2:03 P	2:11 P
2:16 P	2:23 P	2:30 P	2:39 P	2:52 P	3:04 P	3:12 P
3:17 P	3:24 P	3:31 P	3:40 P	3:53 P	4:05 P	4:13 P
4:18 P	4:25 P	4:32 P	4:41 P	4:54 P	5:06 P	5:14 P
5:29 P	5:36 P	5:43 P	5:52 P	6:05 P	6:17 P	6:25 P
6:30 P	6:37 P	6:44 P	6:53 P	7:06 P	7:18 P	7:26 P
7:31 P	7:38 P	7:45 P	7:54 P	8:07 P	8:19 P	8:27 P

Gold 1 Sundays

Vienna/Fairfax-GMU Metro	Fairfax High School	GMU Campus	Jermantown Rd & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Draper Dr & Fairfax Blvd	Vienna/Fairfax-GMU Metro Station
Departs						**Arrives**
10:00 A	10:08 A	10:20 A	10:33 A	10:42 A	10:49 A	10:56 A
11:01 A	11:09 A	11:21 A	11:34 A	11:43 A	11:50 A	11:57 A
12:02 P	12:10 P	12:22 P	12:35 P	12:44 P	12:51 P	12:58 P
1:28 P	1:36 P	1:48 P	2:01 P	2:10 P	2:17 P	2:24 P
2:29 P	2:37 P	2:49 P	3:02 P	3:11 P	3:18 P	3:25 P
3:30 P	3:38 P	3:50 P	4:03 P	4:12 P	4:19 P	4:26 P
4:31 P	4:39 P	4:51 P	5:04 P	5:13 P	5:20 P	5:27 P
5:32 P	5:40 P	5:52 P	6:05 P	6:14 P	6:21 P	6:28 P

Gold 2 Sundays

Vienna/Fairfax-GMU Metro Station	Draper Dr & Fairfax Blvd	Fairfax Blvd & Chain Bridge Rd	Jermantown Rd & Fairfax Blvd	GMU Campus	Fairfax High School	Vienna/Fairfax-GMU Metro Station
Departs						**Arrives**
9:33 A	9:40 A	9:47 A	9:56 A	10:09 A	10:21 A	10:29 A
10:34 A	10:41 A	10:48 A	10:57 A	11:10 A	11:22 A	11:30 A
11:35 A	11:42 A	11:49 A	11:58 A	12:11 P	12:23 P	12:31 P
12:36 P	12:43 P	12:50 P	12:59 P	1:12 P	1:24 P	1:32 P
2:02 P	2:09 P	2:16 P	2:25 P	2:38 P	2:50 P	2:58 P
3:03 P	3:10 P	3:17 P	3:26 P	3:39 P	3:51 P	3:59 P
4:04 P	4:11 P	4:18 P	4:27 P	4:40 P	4:52 P	5:00 P
5:05 P	5:12 P	5:19 P	5:28 P	5:41 P	5:53 P	6:01 P

HOLIDAY SERVICE

Holiday	Type of Service
New Year's Day	None
Martin Luther King Day	Modified Weekday**
Presidents' Day	Modified Weekday**
Memorial Day	Saturday
Independence Day	Special*
Labor Day	Saturday
Columbus Day	Regular
Veterans' Day	Modified Weekday**
Thanksgiving Day	None
Day after Thanksgiving Day	Modified Weekday**
December 24	Normal weekday schedule, except that all CUE services will end at 7:00 p.m.
Christmas Day	None

***CUE buses provide extensive special event service within the city during its Independence Day activities; therefore, no regular service is provided July 4.

****Modified weekday service will consist of one bus on each route. Refer to the unshaded portion of the weekday schedule for holidays.

FARES: Regular fare is $1.80, or $1.60 when using a SmarTrip card. All George Mason University students, faculty and staff presenting a proper GMU ID ride free. A reduced fare of 85¢ is charged to all high school students possessing a proper ID (issued by the City or School), all elementary and intermediate students, and all senior citizens age 60 and older presenting a City or Metro ID. Please note that riders using a SmarTrip card to pay for their fare will NOT receive a discounted fare. Senior citizens and high school students may apply for City IDs by downloading and completing an application form from the website, or by contacting the Transportation Division at 703-385-7859 (TTY: 711). For more information about Metro ID call 202-962-1245.

Persons with disabilities may also ride for 85¢ with a City or Metro ID. People with a Metro Access ID card ride free. Children age three and younger accompanied by an adult may ride free.

EXACT FARE IS REQUIRED; DRIVERS DO NOT CARRY CHANGE. METRO SMARTRIP CARDS ARE ACCEPTED.

ROUTES: Four bus routes operate during weekdays and weekends according to the published schedules. The Green 1 and Gold 1 routes operate in a clockwise direction, while the Green 2 and Gold 2 run counter clockwise (see Route Map).

NEXT BUS:
For real-time bus arrival information, call 703.385.7859 (TTY 711) or go to www.fairfaxva.gov/NextBus

TRANSFERS: When using a Smartrip card, transfers are automatically computed and may be used to transfer to/from any CUE bus, any Metrobus or other regional bus systems, or Metrorail at a reduced fare. Paper transfers are no longer valid. **Transfers must be made within a two hour limit.**

BUS STOPS: CUE bus stop signs are posted at convenient locations along all routes. Buses will only stop at designated bus stops. You should plan to be at your stop at least five (5) minutes ahead of the bus's scheduled arrival.

INFORMATION:
Visit http://www.cuebus.org/ or call 703-385-7859 (TTY: 711)

SERVICE FOR PERSONS WITH DISABILITIES: Specialized transportation services for individuals who are unable to use the CUE Bus because of a disability are provided through the CITY WHEELS and METRO ACCESS programs. For a wheelchair lift equipped bus, 24-hour advance notice is preferred, please call 703.385.7859 (TTY 711).

CITY WHEELS: City Wheels is a City of Fairfax program that provides alternative transportation within the City, to the Vienna/Fairfax-GMU Metrorail station, to George Mason University, and to Fair Oaks Hospital for city residents who are disabled and find it difficult or impossible to use conventional bus service. City Wheels service is provided through private taxicabs. The fare for this service is $3.20. To apply for the City Wheels program, please download the City Wheels Application. For more information, please call 703-385-7859 (TTY 711).

METRO ACCESS: Metro Access is a paratransit service for the Washington Metropolitan Area, operated by the Washington Metropolitan Area Transit Authority (WMATA). Any city resident who is certified as disabled by Metro Access may avail of this service for trips outside the City of Fairfax city limits. The fare for this service is $3.00, plus a zone-based fee for distance. The maximum fare is $6.50. For more information, click here, or call 301-562-5360.

How to use this timetable

- Use the map to find the stops closest to where you will get on and off the bus.
- Select the schedule (Weekday, Saturday, Sunday) for when you will travel. Along the top of the schedule, find the stop at or nearest the point where you will get on the bus. Follow that column down to the time you want to leave.
- Use the same method to find the times the bus is scheduled to arrive at the stop where you will get off the bus.
- If the bus stop is not listed, use the time shown for the bus stop before it as the time to wait at the stop.
- The end-of-the-line or last stop is listed in ALL CAPS on the schedule.

Cómo Usar este Horario

- Use este mapa para localizar las paradas más cercanas a donde se subirá y bajará del autobús.
- Seleccione el horario (Entre semana, sábado, domingo) de cuando viajará. A lo largo de la parte superior del horario, localice la parada o el punto más cercano a la parada en la que se subirá al autobús. Siga esa columna hacia abajo hasta la hora en la que desee salir.
- Utilice el mismo método para localizar las horas en que el autobús está programado para llegar a la parada en donde desea bajarse del autobús.
- Si la parada del autobús no está listada use la hora que se muestra en la parada anterior como la hora de espera en la parada.
- El final de la ruta o la última parada del autobús aparece en letras MAYÚSCULAS en el horario.

English-Español Effective 12-17-17

17

B,M – Kings Park-North Springfield Line
G,H,K,L– Kings Park Express Line

metrobus

Express Fare Charged on **17**B,G,H,K,L,M

Serves these locations-
Brinda servicio a estas ubicaciones

- George Mason University (17G)
- Burke Centre VRE Station and Park & Ride Lot (17B,L)
- Olde Forge (17G)
- Kings Park West (17G,H,K,L)
- Burke (17L)
- Kings Park (17B,G,H,K,L)
- Danbury Forest (17B,L)
- Ravensworth (17B,M)
- North Springfield (17B,M)
- Pentagon station

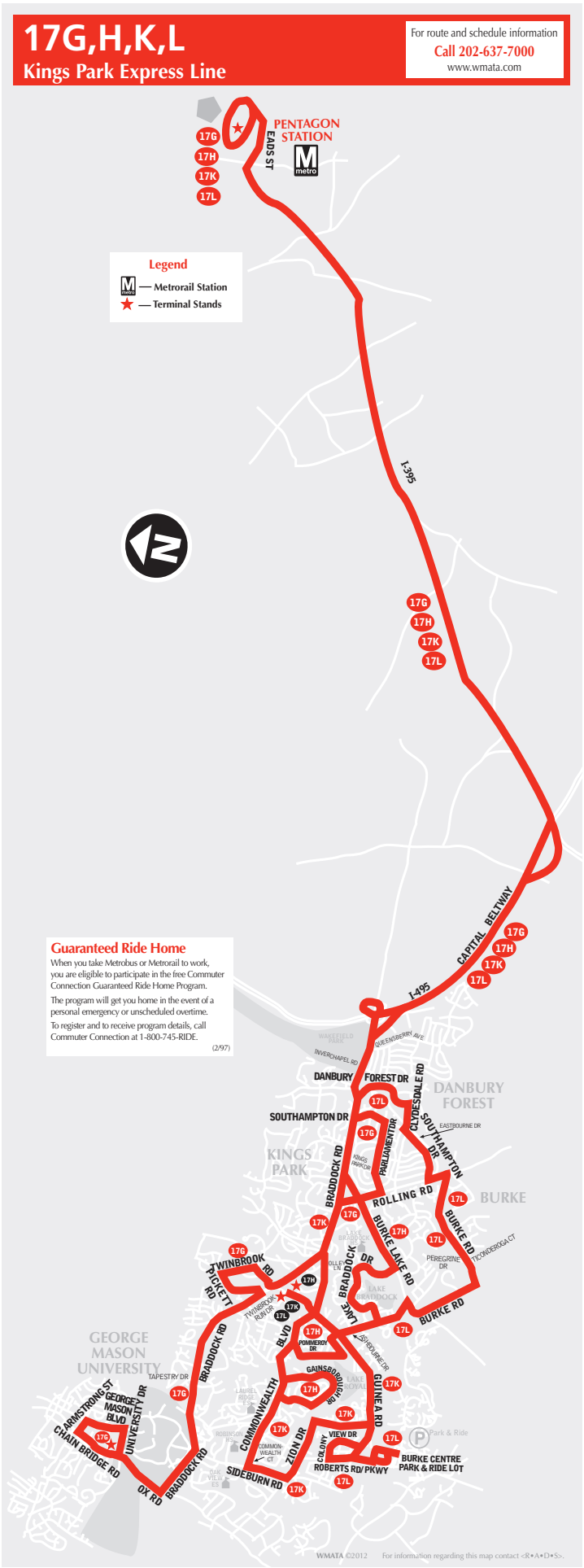
www.wmata.com
Information Anytime 202-637-7000 TTY 202-962-2033

Washington Metropolitan Area Transit Authority

A District of Columbia, Maryland and Virginia Transit Partnership

17G,H,K,L
Kings Park Express Line

For route and schedule information
Call 202-637-7000
www.wmata.com



17B,M
Kings Park-North Springfield Line

For route and schedule information
Call 202-637-7000
www.wmata.com

Guaranteed Ride Home

When you take Metrobus or Metrorail to work, you are eligible to participate in the free Commuter Connection Guaranteed Ride Home Program.

The program will get you home in the event of a personal emergency or unscheduled overtime.

To register and to receive program details, call Commuter Connection at 1-800-745-RIDE.

(2/97)

17

B,M – Kings Park Line
G,H,K,L– Kings Park Express Line

Kings Park Express Line

Northbound To Pentagon station

**Monday thru Friday —
Lunes a viernes**

Route Number	University Dr. & Geo. Mason Blvd. (George Mason University)	Braddock Rd. & Tapestry Dr.	Pickett & Braddock Rds.	Twin-brook Rd. & Twin-brook Run Dr.	Colony View & Colony Park Drs.	Burke Centre Park & Ride Lot/ VRE Station	Gains-borough Dr. (E.) & Common-wealth Blvd.	Common-wealth Blvd. & Common-wealth Ct.	Burke Rd. & Ashbourn Dr.	Guinea Rd. & Olley La.	Burke Lake & Rolling Rds.	Parlia-ment & Kings Park Drs.	Clydes-dale Rd. & East-boume Dr.	Braddock & Inver-chapel Rds.	PENTA-GON
AM Service — Servicio matutino															
17H	-	-	-	5:23	-	-	5:27	-	5:38	-	5:47	-	-	5:53	6:09
17H	-	-	-	5:48	-	-	5:52	-	6:03	-	6:12	-	-	6:18	6:34
✱ **17G**	5:59	6:05	6:08	-	-	-	-	-	-	-	-	6:20	-	6:27	6:43
17L	-	-	-	5:57	6:02	6:09	-	-	6:15	-	-	-	6:28	6:33	6:50
17H	-	-	-	6:09	-	-	6:13	-	6:24	-	6:33	-	-	6:39	6:56
17K	-	-	-	6:20	-	-	-	6:30	-	6:38	-	-	-	6:46	7:03
✱ **17G**	6:21	6:28	6:31	-	-	-	-	-	-	-	-	6:44	-	6:52	7:09
17H	-	-	-	6:24	-	-	6:28	-	6:39	-	6:49	-	-	6:56	7:14
17K	-	-	-	6:33	-	-	-	6:43	-	6:52	-	-	-	7:02	7:20
17L	-	-	-	6:31	6:36	6:43	-	-	6:49	-	-	-	7:02	7:07	7:25
✱ **17G**	6:39	6:47	6:51	-	-	-	-	-	-	-	-	7:04	-	7:12	7:30
17H	-	-	-	6:45	-	-	6:49	-	7:00	-	7:10	-	-	7:17	7:35
17K	-	-	-	6:53	-	-	-	7:03	-	7:12	-	-	-	7:22	7:40
✱ **17G**	6:53	7:02	7:05	-	-	-	-	-	-	-	-	7:18	-	7:26	7:46
17L	-	-	-	6:55	7:00	7:07	-	-	7:13	-	-	-	7:26	7:32	7:52
17K	-	-	-	7:05	-	-	-	7:15	-	7:24	-	-	-	7:36	7:56
17H	-	-	-	7:06	-	-	7:10	-	7:21	-	7:33	-	-	7:41	8:01
✱ **17G**	7:13	7:22	7:25	-	-	-	-	-	-	-	-	7:38	-	7:46	8:06
17L	-	-	-	7:14	7:19	7:26	-	-	7:32	-	-	-	7:45	7:51	8:11
17H	-	-	-	7:22	-	-	7:26	-	7:37	-	7:49	-	-	7:57	8:17
17K	-	-	-	7:32	-	-	-	7:42	-	7:51	-	-	-	8:03	8:23
17L	-	-	-	7:31	7:36	7:43	-	-	7:49	-	-	-	8:02	8:08	8:28
✱ **17G**	7:40	7:49	7:52	-	-	-	-	-	-	-	-	8:05	-	8:13	8:33
17H	-	-	-	7:43	-	-	7:47	-	7:58	-	8:10	-	-	8:18	8:38
17H	-	-	-	8:10	-	-	8:14	-	8:24	-	8:34	-	-	8:42	8:58

On four Federal holidays, Columbus Day, Veterans' Day, Martin L. King Day, and Presidents' Day, Metrobus will run on a Saturday supplemental schedule. On these holidays, trips marked with an asterisk (✱) will operate.

17

B,M – Kings Park Line
G,H,K,L– Kings Park Express Line

Southbound To Kings Park West/George Mason University

**Monday thru Friday —
Lunes a viernes**

Route Number	Pentagon (Metro)	Braddock & Inverchapel Rds.	Clydesdale Rd. & Southampton Dr.	Parliament & Kings Park Drs.	Burke Lake & Rolling Rds.	Guinea Rd. & Harford La.	Burke Rd. & Ashbourn Dr.	Commonwealth Blvd. & Commonwealth Ct.	Gainsborough Dr. (E) & Commonwealth Blvd.	Burke Centre Park & Ride Lot/ VRE Station	Roberts & New Guinea Rds.	Twinbrook Rd. & Heathwood Ct. (KINGS PARK WEST)	Pickett & Braddock Rds.	Braddock Rd. & Tapestry Dr.	University Dr. & Geo. Mason Blvd. (GEORGE MASON UNIVERSITY)
PM Service — Servicio vespertino															
✱ **17G**	3:55	4:15	-	4:22	-	-	-	-	-	-	-	-	4:35	4:38	4:51
17H	4:05	4:26	-	-	4:33	-	4:41	-	4:47	-	-	4:55	-	-	-
✱ **17G**	4:15	4:36	-	4:43	-	-	-	-	-	-	-	-	4:56	4:59	5:10
17K	4:23	4:44	-	-	-	4:54	-	5:05	-	-	-	5:12	-	-	-
17H	4:30	4:51	-	-	4:58	-	5:06	-	5:12	-	-	5:20	-	-	-
17L	4:36	4:57	5:03	-	-	-	5:16	-	-	5:23	5:30	5:37	-	-	-
✱ **17G**	4:42	5:03	-	5:10	-	-	-	-	-	-	-	-	5:23	5:26	5:37
17K	4:46	5:07	-	-	-	5:17	-	5:28	-	-	-	5:35	-	-	-
17H	4:50	5:11	-	-	5:18	-	5:26	-	5:32	-	-	5:40	-	-	-
17L	4:54	5:15	5:21	-	-	-	5:34	-	-	5:41	5:48	5:55	-	-	-
✱ **17G**	4:58	5:19	-	5:26	-	-	-	-	-	-	-	-	5:39	5:42	5:53
17K	5:02	5:24	-	-	-	5:34	-	5:45	-	-	-	5:55	-	-	-
17H	5:06	5:28	-	-	5:35	-	5:43	-	5:49	-	-	5:59	-	-	-
✱ **17G**	5:10	5:32	-	5:39	-	-	-	-	-	-	-	-	5:51	5:54	6:03
17L	5:14	5:36	5:42	-	-	-	5:55	-	-	6:02	6:09	6:17	-	-	-
17K	5:18	5:40	-	-	-	5:50	-	6:01	-	-	-	6:11	-	-	-
17H	5:22	5:44	-	-	5:51	-	5:59	-	6:05	-	-	6:15	-	-	-
✱ **17G**	5:26	5:48	-	5:55	-	-	-	-	-	-	-	-	6:07	6:10	6:19
17K	5:30	5:52	-	-	-	6:02	-	6:13	-	-	-	6:23	-	-	-
17L	5:35	5:57	6:03	-	-	-	6:16	-	-	6:23	6:30	6:38	-	-	-
17H	5:40	6:02	-	-	6:09	-	6:17	-	6:23	-	-	6:33	-	-	-
✱ **17G**	5:45	6:07	-	6:14	-	-	-	-	-	-	-	-	6:26	6:29	6:38
17K	5:50	6:12	-	-	-	6:22	-	6:33	-	-	-	6:43	-	-	-
17L	5:55	6:17	6:23	-	-	-	6:36	-	-	6:43	6:50	6:58	-	-	-
17H	6:00	6:21	-	-	6:28	-	6:35	-	6:41	-	-	6:48	-	-	-
✱ **17G**	6:06	6:27	-	6:33	-	-	-	-	-	-	-	-	6:44	6:46	6:56
17K	6:12	6:33	-	-	-	6:42	-	6:52	-	-	-	6:59	-	-	-
17G	6:20	6:41	-	6:47	-	-	-	-	-	-	-	-	6:58	7:00	7:10
17L	6:28	6:49	6:54	-	-	-	7:05	-	-	7:11	7:17	7:25	-	-	-
17H	6:36	6:57	-	-	7:04	-	7:11	-	7:17	-	-	7:24	-	-	-
17K	6:44	7:05	-	-	-	7:14	-	7:24	-	-	-	7:31	-	-	-
✱ **17G**	6:52	7:13	-	7:19	-	-	-	-	-	-	-	-	7:30	7:32	7:42

On four Federal holidays, Columbus Day, Veterans' Day, Martin L. King Day, and Presidents' Day, Metrobus will run on a Saturday supplemental schedule. On these holidays, trips marked with an asterisk (✱) will operate.

17

B,M – Kings Park Line
G,H,K,L– Kings Park Express Line

Kings Park-North Springfield Line

Northbound to Pentagon station

**Monday thru Friday —
Lunes a viernes**

Route Number	Burke Centre Park & Ride Lot	Guinea Rd. & Olley La.	Clydesdale Rd. & Eastbourne Dr.	Edsall Rd. & Industrial Dr.	Braddock & Inverchapel Rds.	Leesville Blvd. & Appomatox Ct.	Braddock & Ravensworth Rds.	Rt. 236 & Braddock Rd.	Rt. 236 & Oasis Dr.	PENTAGON
AM Service — Servicio matutino										
17M	-	-	-	5:56	-	6:00	6:12	6:21	6:25	6:40
17M	-	-	-	6:26	-	6:30	6:42	6:51	6:55	7:10
17M	-	-	-	6:55	-	6:59	7:11	7:20	7:25	7:40
17M	-	-	-	7:29	-	7:34	7:46	7:55	7:59	8:10
17M	-	-	-	7:59	-	8:04	8:16	8:25	8:29	8:40
17B	8:20	8:32	8:39	-	8:43	8:49	-	8:55	8:59	9:10
17B	9:10	9:22	9:29	-	9:33	9:39	-	9:45	9:49	10:00

On four Federal holidays, Columbus Day, Veterans' Day, Martin L. King Day, and Presidents' Day, Metrobus will run on a Saturday supplemental schedule. On these holidays, the weekday trips will operate.

El Día de la Raza, el Día de los Veteranos, el Día de Martin Luther King Jr. y el Día de los Presidentes, Metrobus operará con el horario de entre semana en esta ruta.

For weekday midday service in the Braddock Road corridor to and from the Pentagon, see the Fairfax Connector Route 306 GMU-Pentagon Line timetable. For Fairfax Connector information call (703) 339-7200, TDD (703) 339-1608, www.fairfaxconnector.com.

Southbound to North Springfield/Burke Centre VRE/Park & Ride

**Monday thru Friday —
Lunes a viernes**

Route Number	Pentagon	Rt. 236 & Oasis Dr.	Braddock Rd. & Irvin Ct.	Braddock & Ravensworth Rds.	Leesville Blvd. & Appomatox Ct. (NORTH SPRINGFIELD)	Braddock & Inverchapel Rds.	Clydesdale Rd. & Southampton Dr.	Edsall Rd. & Industrial Dr.	Guinea Rd. & Harford La.	BURKE CENTRE PARK & RIDE LOT
PM Service — Servicio vespertino										
17B	3:40	3:50	3:55	-	4:02	4:10	4:14	-	4:21	4:28
17M	4:10	4:22	4:27	4:34	4:46	-	-	4:50	-	-
17M	4:40	4:52	4:57	5:04	5:16	-	-	5:20	-	-
17M	5:10	5:23	5:29	5:38	5:50	-	-	5:54	-	-
17M	5:40	5:53	5:59	6:08	6:20	-	-	6:24	-	-
17M	6:10	6:22	6:27	6:35	6:47	-	-	6:51	-	-
17M	6:45	6:57	7:02	7:10	7:22	-	-	7:26	-	-
17B	7:20	7:31	7:36	-	7:44	7:52	7:57	-	8:03	8:08

On four Federal holidays, Columbus Day, Veterans' Day, Martin L. King Day, and Presidents' Day, Metrobus will run on a Saturday supplemental schedule. On these holidays, the weekday trips will operate.

El Día de la Raza, el Día de los Veteranos, el Día de Martin Luther King Jr. y el Día de los Presidentes, Metrobus operará con el horario de entre semana en esta ruta.

For weekday midday service in the Braddock Road corridor to and from the Pentagon, see the Fairfax Connector Route 306 GMU-Pentagon Line timetable. For Fairfax Connector information call (703) 339-7200, TDD (703) 339-1608, www.fairfaxconnector.com.

How to use this timetable

- Use the map to find the stops closest to where you will get on and off the bus.
- Select the schedule (Weekday, Saturday, Sunday) for when you will travel. Along the top of the schedule, find the stop at or nearest the point where you will get on the bus. Follow that column down to the time you want to leave.
- Use the same method to find the times the bus is scheduled to arrive at the stop where you will get off the bus.
- If the bus stop is not listed, use the time shown for the bus stop before it as the time to wait at the stop.
- The end-of-the-line or last stop is listed in ALL CAPS on the schedule.

Cómo Usar este Horario

- Use este mapa para localizar las paradas más cercanas a donde se subirá y bajará del autobús.
- Seleccione el horario (Entre semana, sábado, domingo) de cuando viajará. A lo largo de la parte superior del horario, localice la parada o el punto más cercano a la parada en la que se subirá al autobús. Siga esa columna hacia abajo hasta la hora en la que desee salir.
- Utilice el mismo método para localizar las horas en que el autobús está programado para llegar a la parada en donde desea bajarse del autobús.
- Si la parada del autobús no está listada use la hora que se muestra en la parada anterior como la hora de espera en la parada.
- El final de la ruta o la última parada del autobús aparece en letras MAYÚSCULAS en el horario.

English-Español Effective 6-26-16

29K,N

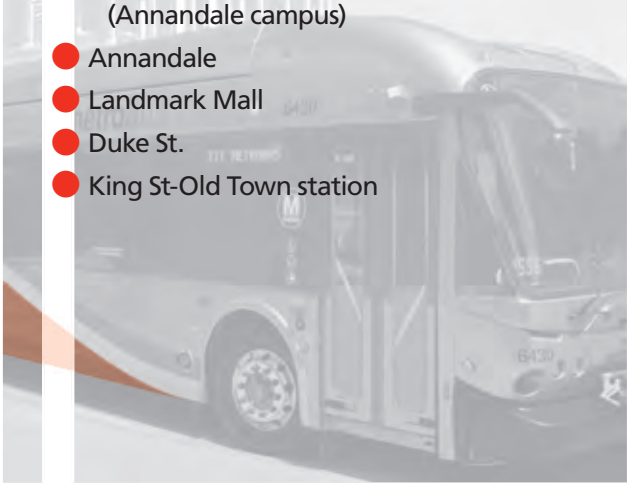
Alexandria-Fairfax Line

metrobus

LIMITED STOPS ON DUKE STREET AT ALL TIMES
between King St – Old Town station and Landmark Mall (See map for list of designated stops)

Serves these locations-
Brinda servicio a estas ubicaciones

- George Mason University (29K)
- Vienna station (29N)
- City of Fairfax
- Fair City Mall
- Pickett Shopping Center
- Northern Virginia Community College (Annandale campus)
- Annandale
- Landmark Mall
- Duke St.
- King St-Old Town station



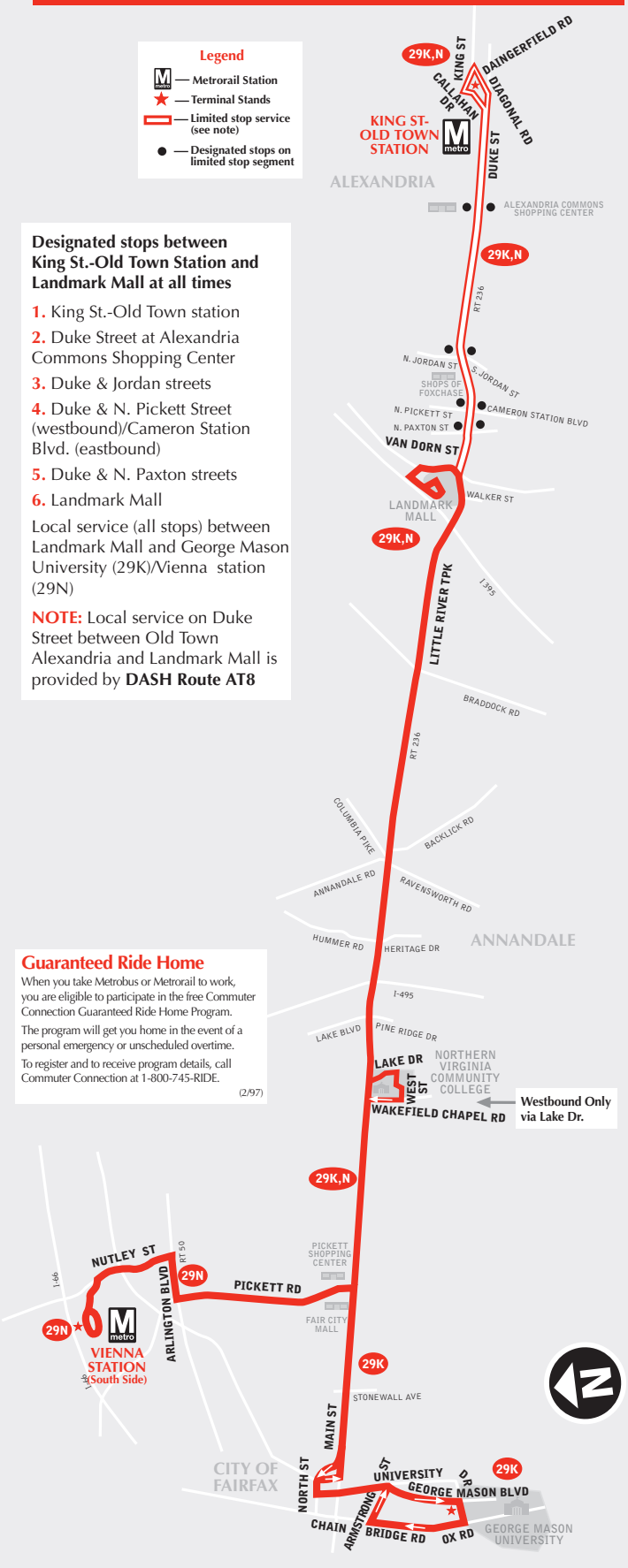
www.wmata.com
Information Anytime 202-637-7000 TTY 202-962-2033

Washington Metropolitan Area Transit Authority

A District of Columbia, Maryland and Virginia Transit Partnership

29K,N
Alexandria-Fairfax Line

For route and schedule information
Call 202-637-7000
www.wmata.com



Designated stops between King St.-Old Town Station and Landmark Mall at all times

1. King St.-Old Town station
2. Duke Street at Alexandria Commons Shopping Center
3. Duke & Jordan streets
4. Duke & N. Pickett Street (westbound)/Cameron Station Blvd. (eastbound)
5. Duke & N. Paxton streets
6. Landmark Mall

Local service (all stops) between Landmark Mall and George Mason University (29K)/Vienna station (29N)

NOTE: Local service on Duke Street between Old Town Alexandria and Landmark Mall is provided by **DASH Route AT8**

Guaranteed Ride Home

When you take Metrobus or Metrorail to work, you are eligible to participate in the free Commuter Connection Guaranteed Ride Home Program.

The program will get you home in the event of a personal emergency or unscheduled overtime.

To register and to receive program details, call Commuter Connection at 1-800-745-RIDE.

(2/97)

29K,N

Alexandria-Fairfax Line

Eastbound to King St-Old Town station

Monday thru Friday — Lunes a viernes

Route Number	Vienna (south side) Metro	Univ. Dr. & Geo. Mason Blvd. (George Mason Univ.)	Route 236 & Stone-wall Ave.	Arlington Blvd. & Pickett Rd.	Route 236 & Lake Dr. (NVCC)	Route 236 & Ravens-worth Rd.	Route 236 & Brad-dock Rd.	Duke & Walker Sts.	Land-mark Mall *	Duke & Jordan Sts. *	Duke St. opposite Alex-andria Commons Shopping Ctr. *	KING ST-OLD TOWN Metro *
AM Service — Servicio matutino												
29N	5:30	-	-	5:41	5:53	6:02	6:09	6:17	-	6:21	6:25	6:31
29K	-	6:00	6:11	-	6:23	6:32	6:39	6:47	-	6:51	6:55	7:01
29N	6:30	-	-	6:41	6:53	7:02	7:09	7:17	-	7:21	7:25	7:31
29K	-	7:00	7:11	-	7:23	7:32	7:39	7:47	-	7:51	7:55	8:01
29N	7:22	-	-	7:33	7:45	7:54	8:01	8:09	8:13	8:19	8:23	8:29
29K	-	7:52	8:03	-	8:15	8:24	8:31	8:39	8:43	8:49	8:52	8:58
29N	8:31	-	-	8:38	8:50	8:57	9:03	9:09	9:13	9:19	9:22	9:28
29K	-	8:59	9:09	-	9:20	9:27	9:33	9:39	9:43	9:49	9:52	9:58
29N	9:31	-	-	9:38	9:50	9:57	10:03	10:09	10:13	10:19	10:22	10:28
29K	-	9:59	10:09	-	10:20	10:27	10:33	10:39	10:43	10:49	10:52	10:58
29N	10:31	-	-	10:38	10:50	10:57	11:03	11:09	11:13	11:19	11:22	11:28
29K	-	10:53	11:04	-	11:15	11:24	11:31	11:39	11:43	11:51	11:55	12:00
29N	11:23	-	-	11:33	11:45	11:54	12:01	12:09	12:13	12:21	12:25	12:30
29K	-	11:53	12:04	-	12:15	12:24	12:31	12:39	12:43	12:51	12:55	1:00
PM Service — Servicio vespertino												
29N	12:23	-	-	12:33	12:45	12:54	1:01	1:09	1:13	1:21	1:25	1:30
29K	-	12:53	1:04	-	1:15	1:24	1:31	1:39	1:43	1:51	1:55	2:00
29N	1:23	-	-	1:33	1:45	1:54	2:01	2:09	2:13	2:21	2:25	2:30
29K	-	1:50	2:02	-	2:14	2:23	2:32	2:39	2:43	2:50	2:54	3:02
29N	2:29	-	-	2:41	2:54	3:03	3:12	3:19	3:23	3:30	3:34	3:42
29K	-	3:00	3:12	-	3:24	3:33	3:42	3:49	3:53	4:00	4:04	4:12
29N	3:29	-	-	3:41	3:54	4:03	4:12	4:19	4:23	4:30	4:34	4:42
29K	-	4:00	4:12	-	4:24	4:33	4:42	4:49	4:53	5:00	5:04	5:12
29N	4:29	-	-	4:41	4:54	5:03	5:12	5:19	5:23	5:30	5:34	5:42
29K	-	5:00	5:12	-	5:24	5:33	5:42	5:49	5:53	6:00	6:04	6:12
29N	5:29	-	-	5:41	5:54	6:03	6:12	6:19	6:23	6:30	6:34	6:42
29K	-	6:00	6:12	-	6:24	6:33	6:42	6:49	6:53	7:00	7:04	7:12
29N	6:28	-	-	6:35	6:47	6:54	7:00	7:06	7:10	7:16	7:19	7:25
29K	-	7:00	7:10	-	7:17	7:24	7:30	7:36	7:40	7:46	7:49	7:55
29N	7:28	-	-	7:35	7:47	7:54	8:00	8:06	8:10	8:16	8:19	8:25
29K	-	8:00	8:10	-	8:17	8:24	8:30	8:36	8:40	8:46	8:49	8:55
29N	8:28	-	-	8:35	8:47	8:54	9:00	9:06	9:10	9:16	9:19	9:25
29K	-	8:50	9:00	-	9:07	9:14	9:20	9:26	9:30	9:36	9:39	9:45
29K	-	9:40	9:50	-	9:57	10:04	10:10	10:16	10:20	10:26	10:29	10:35
29K	-	10:40	10:50	-	10:57	11:04	11:10	11:16	11:20	11:26	11:29	11:35

**—Limited stop segment – see map for list of designated stops*

29K,N

Alexandria-Fairfax Line

Westbound To George Mason University/Vienna station

Monday thru Friday — Lunes a viernes

Route Number	King St-Old Town ✱	Duke St. at Alexandria Commons Shopping Ctr. ✱	Duke & Jordan Sts. ✱	Landmark Mall ✱	Duke & Walker Sts.	Route 236 & Braddock Rd.	Route 236 & Annandale Rd.	Lake Dr. opposite Godwin Bldg. (NVCC)	Arlington Blvd. & Pickett Rd.	Route 236 & Stonewall Ave	Univ. Dr. & Geo. Mason Blvd. (GEO. MASON UNIV.)	VIENNA (south side)
AM Service — Servicio matutino												
29K	5:40	5:44	5:47	-	5:53	5:57	6:06	6:15	-	6:26	6:33	-
29N	6:10	6:14	6:17	-	6:23	6:27	6:36	6:45	6:56	-	-	7:06
29K	6:40	6:44	6:47	-	6:53	6:57	7:06	7:15	-	7:26	7:33	-
29N	7:10	7:19	7:22	-	7:29	7:38	7:47	7:56	8:09	-	-	8:20
29K	7:40	7:49	7:52	-	7:59	8:08	8:17	8:26	-	8:37	8:47	-
29N	8:10	8:19	8:22	8:28	8:33	8:42	8:51	9:00	9:13	-	-	9:24
29K	8:40	8:49	8:52	8:58	9:03	9:12	9:21	9:30	-	9:41	9:51	-
29N	9:10	9:19	9:22	9:28	9:33	9:42	9:51	10:00	10:13	-	-	10:24
29K	9:40	9:46	9:50	9:56	10:00	10:07	10:16	10:25	-	10:36	10:43	-
29N	10:10	10:16	10:20	10:26	10:30	10:37	10:46	10:55	11:06	-	-	11:16
29K	10:40	10:46	10:50	10:56	11:00	11:07	11:16	11:25	-	11:36	11:43	-
29N	11:10	11:16	11:20	11:26	11:30	11:37	11:46	11:55	12:06	-	-	12:16
29K	11:40	11:46	11:50	11:56	12:00	12:07	12:16	12:25	-	12:36	12:43	-
PM Service — Servicio vespertino												
29N	12:10	12:16	12:20	12:26	12:30	12:37	12:46	12:55	1:06	-	-	1:16
29K	12:40	12:46	12:50	12:56	1:00	1:07	1:16	1:25	-	1:36	1:43	-
29N	1:10	1:16	1:20	1:26	1:30	1:37	1:46	1:55	2:06	-	-	2:16
29K	1:40	1:46	1:50	1:56	2:00	2:07	2:16	2:25	-	2:36	2:43	-
29N	2:10	2:16	2:20	2:26	2:30	2:37	2:46	2:55	3:06	-	-	3:16
29K	2:40	2:46	2:50	2:56	3:00	3:07	3:16	3:25	-	3:36	3:43	-
29N	3:10	3:17	3:21	3:29	3:33	3:41	3:51	4:00	4:12	-	-	4:24
29K	3:40	3:47	3:51	3:59	4:03	4:11	4:21	4:30	-	4:42	4:50	-
29N	4:10	4:17	4:21	4:29	4:33	4:41	4:51	5:00	5:12	-	-	5:24
29K	4:40	4:47	4:51	4:59	5:03	5:11	5:21	5:30	-	5:42	5:50	-
29N	5:10	5:17	5:21	5:29	5:33	5:41	5:51	6:00	6:12	-	-	6:24
29K	5:40	5:47	5:51	5:59	6:03	6:11	6:21	6:30	-	6:42	6:50	-
29N	6:10	6:17	6:21	6:29	6:33	6:41	6:51	7:00	7:12	-	-	7:24
29K	6:40	6:47	6:51	6:59	7:03	7:11	7:21	7:30	-	7:42	7:50	-
29N	7:10	7:14	7:17	7:22	7:26	7:30	7:39	7:48	7:59	-	-	8:09
29K	7:40	7:44	7:47	7:52	7:56	8:00	8:09	8:18	-	8:28	8:36	-
29N	8:10	8:14	8:17	8:22	8:26	8:30	8:39	8:48	8:59	-	-	9:09
29K	8:40	8:44	8:47	8:52	8:56	9:00	9:09	9:18	-	9:28	9:36	-
29N	9:10	9:14	9:17	9:22	9:26	9:30	9:39	9:48	9:59	-	-	10:09
29K	9:40	9:44	9:47	9:52	9:56	10:00	10:09	10:18	-	10:28	10:36	-
29N	10:10	10:14	10:17	10:22	10:26	10:30	10:39	10:48	10:59	-	-	11:09

✱—*Limited stop segment – see map for list of designated stops*

29K,N

Alexandria-Fairfax Line

Eastbound to King St-Old Town station

Saturday — En sábados

Route Number	Vienna (south side) Metro	Univ. Dr. & Geo. Mason Blvd. (George Mason Univ.)	Route 236 & Stone-wall Ave.	Arlington Blvd. & Pickett Rd.	Route 236 & Lake Dr. (NVCC)	Route 236 & Ravens-worth Rd.	Route 236 & Brad-dock Rd.	Duke & Walker Sts.	Land-mark Mall *	Duke & Jordan Sts. *	Duke St. opposite Alex-andria Commons Shopping Ctr. *	KING ST-OLD TOWN Metro *
AM Service — Servicio matutino												
29N	7:13	-	-	7:20	7:29	7:36	7:44	7:50	-	7:56	7:59	8:05
29K	-	8:00	8:10	-	8:19	8:26	8:34	8:41	8:44	8:51	8:55	9:01
29N	8:30	-	-	8:38	8:49	8:56	9:04	9:11	9:14	9:21	9:25	9:31
29K	-	9:00	9:10	-	9:19	9:26	9:34	9:41	9:44	9:51	9:55	10:01
29N	9:30	-	-	9:38	9:49	9:56	10:04	10:11	10:14	10:21	10:25	10:31
29K	-	9:57	10:07	-	10:16	10:25	10:33	10:40	10:44	10:51	10:55	11:01
29N	10:26	-	-	10:34	10:45	10:54	11:02	11:10	11:14	11:21	11:25	11:31
29K	-	10:49	10:59	-	11:08	11:17	11:26	11:39	11:43	11:51	11:55	12:01
29N	11:29	-	-	11:37	11:48	11:57	12:06	12:19	12:23	12:31	12:35	12:41
29K	-	11:59	12:09	-	12:18	12:27	12:36	12:49	12:53	1:01	1:05	1:11
PM Service — Servicio vespertino												
29N	12:29	-	-	12:37	12:48	12:57	1:06	1:19	1:23	1:31	1:35	1:41
29K	-	12:59	1:09	-	1:18	1:27	1:36	1:49	1:53	2:01	2:05	2:11
29N	1:29	-	-	1:37	1:48	1:57	2:06	2:19	2:23	2:31	2:35	2:41
29K	-	1:59	2:09	-	2:18	2:27	2:36	2:49	2:53	3:01	3:05	3:11
29N	2:29	-	-	2:37	2:48	2:57	3:06	3:19	3:23	3:31	3:35	3:41
29K	-	2:59	3:09	-	3:18	3:27	3:36	3:49	3:53	4:01	4:05	4:11
29N	3:29	-	-	3:37	3:48	3:57	4:06	4:19	4:23	4:31	4:35	4:41
29K	-	3:59	4:09	-	4:18	4:27	4:36	4:49	4:53	5:01	5:05	5:11
29N	4:29	-	-	4:37	4:48	4:57	5:06	5:19	5:23	5:31	5:35	5:41
29K	-	4:59	5:09	-	5:18	5:27	5:36	5:49	5:53	6:01	6:05	6:11
29N	5:29	-	-	5:37	5:48	5:57	6:06	6:19	6:23	6:31	6:35	6:41
29K	-	5:59	6:09	-	6:18	6:27	6:36	6:49	6:53	7:01	7:05	7:11
29N	6:29	-	-	6:37	6:48	6:57	7:06	7:19	7:23	7:31	7:35	7:41
29K	-	6:59	7:09	-	7:18	7:27	7:36	7:49	7:53	8:01	8:05	8:11
29N	7:28	-	-	7:38	7:48	7:55	8:01	8:09	8:13	8:21	8:25	8:31
29K	-	7:59	8:09	-	8:18	8:25	8:31	8:39	8:43	8:51	8:55	9:01
29N	8:28	-	-	8:38	8:48	8:55	9:01	9:09	9:13	9:21	9:25	9:31
29K	-	8:59	9:09	-	9:18	9:25	9:31	9:39	9:43	9:51	9:55	10:01
29N	9:28	-	-	9:38	9:48	9:55	10:01	10:09	10:13	10:21	10:25	10:31

—Limited stop segment – see map for list of designated stops

29K,N

Alexandria-Fairfax Line

Westbound To Vienna station

Saturday — En sábados

Route Number	King St-Old Town ✱	Duke St. at Alexandria Commons Shopping Ctr. ✱	Duke & Jordan Sts. ✱	Landmark Mall ✱	Duke & Walker Sts.	Route 236 & Braddock Rd.	Route 236 & Annandale Rd.	Lake Dr. opposite Godwin Bldg. (NVCC)	Arlington Blvd. & Pickett Rd.	Route 236 & Stonewall Ave	Univ. Dr. & Geo. Mason Blvd. (GEO. MASON UNIV.)	VIENNA (south side)
AM Service — Servicio matutino												
29N	6:10	6:15	6:20	-	6:25	6:31	6:38	6:44	6:54	-	-	7:00
29K	6:40	6:45	6:50	-	6:55	7:01	7:08	7:14	-	7:25	7:33	-
29N	7:10	7:15	7:20	-	7:25	7:31	7:38	7:44	7:54	-	-	8:00
29K	7:40	7:45	7:50	-	7:55	8:01	8:08	8:14	-	8:25	8:33	-
29N	8:10	8:15	8:20	8:26	8:29	8:36	8:44	8:52	9:03	-	-	9:09
29K	8:40	8:45	8:50	8:56	8:59	9:06	9:14	9:22	-	9:33	9:41	-
29N	9:10	9:15	9:20	9:26	9:29	9:36	9:44	9:52	10:03	-	-	10:09
29K	9:40	9:45	9:50	9:56	9:59	10:06	10:14	10:22	-	10:33	10:41	-
29N	10:10	10:16	10:21	10:29	10:33	10:40	10:48	10:57	11:08	-	-	11:14
29K	10:40	10:46	10:51	10:59	11:03	11:10	11:18	11:27	-	11:38	11:46	-
29N	11:10	11:16	11:21	11:29	11:33	11:40	11:48	11:57	12:08	-	-	12:14
29K	11:40	11:46	11:51	11:59	12:03	12:10	12:18	12:27	-	12:38	12:46	-
PM Service — Servicio vespertino												
29N	12:10	12:16	12:21	12:29	12:33	12:40	12:48	12:57	1:08	-	-	1:14
29K	12:40	12:46	12:51	12:59	1:03	1:10	1:18	1:27	-	1:38	1:46	-
29N	1:10	1:16	1:21	1:29	1:33	1:40	1:48	1:57	2:08	-	-	2:14
29K	1:40	1:46	1:51	1:59	2:03	2:10	2:18	2:27	-	2:38	2:46	-
29N	2:10	2:18	2:24	2:32	2:37	2:45	2:54	3:03	3:16	-	-	3:23
29K	2:40	2:48	2:54	3:02	3:07	3:15	3:24	3:33	-	3:44	3:52	-
29N	3:10	3:18	3:24	3:32	3:37	3:45	3:54	4:03	4:16	-	-	4:23
29K	3:40	3:48	3:54	4:02	4:07	4:15	4:24	4:33	-	4:44	4:52	-
29N	4:10	4:18	4:24	4:32	4:37	4:45	4:54	5:03	5:16	-	-	5:23
29K	4:40	4:48	4:54	5:02	5:07	5:15	5:24	5:33	-	5:44	5:52	-
29N	5:10	5:15	5:21	5:29	5:34	5:43	5:51	5:59	6:11	-	-	6:17
29K	5:40	5:45	5:51	5:59	6:04	6:13	6:21	6:29	-	6:40	6:48	-
29N	6:10	6:15	6:21	6:29	6:34	6:43	6:51	6:59	7:11	-	-	7:17
29K	6:40	6:45	6:51	6:59	7:04	7:13	7:21	7:29	-	7:40	7:48	-
29N	7:10	7:15	7:18	7:26	7:31	7:38	7:45	7:53	8:04	-	-	8:10
29K	7:40	7:45	7:48	7:56	8:01	8:08	8:15	8:23	-	8:34	8:42	-
29N	8:10	8:15	8:18	8:26	8:31	8:38	8:45	8:53	9:04	-	-	9:10

✱—*Limited stop segment – see map for list of designated stops*

29K,N

Alexandria-Fairfax Line

Eastbound to King St-Old Town station

Sunday — En domingo

Route Number	Vienna (south side)	Univ. Dr. & Geo. Mason Blvd. (George Mason Univ.)	Route 236 & Stone-wall Ave.	Arlington Blvd. & Pickett Rd.	Route 236 & Lake Dr. (NVCC)	Route 236 & Ravens-worth Rd.	Route 236 & Brad-dock Rd.	Duke & Walker Sts.	Land-mark Mall *	Duke & Jordan Sts. *	Duke St. opposite Alex-andria Commons Shopping Ctr. *	KING ST-OLD TOWN *
AM Service — Servicio matutino												
29N	7:12	-	-	7:21	7:30	7:37	7:42	7:49	-	7:55	7:59	8:05
29K	-	8:01	8:11	-	8:20	8:27	8:32	8:39	8:43	8:49	8:53	8:59
29N	8:32	-	-	8:41	8:50	8:57	9:02	9:09	9:13	9:19	9:23	9:29
29K	-	9:01	9:11	-	9:20	9:27	9:32	9:39	9:43	9:49	9:53	9:59
29N	9:32	-	-	9:41	9:50	9:57	10:02	10:09	10:13	10:19	10:23	10:29
29K	-	9:54	10:04	-	10:13	10:21	10:29	10:38	10:43	10:51	10:55	11:01
29N	10:23	-	-	10:31	10:43	10:51	10:59	11:08	11:13	11:21	11:25	11:31
29K	-	10:54	11:04	-	11:13	11:21	11:29	11:38	11:43	11:51	11:55	12:01
29N	11:23	-	-	11:31	11:43	11:51	11:59	12:08	12:13	12:21	12:25	12:31
29K	-	11:54	12:04	-	12:13	12:21	12:29	12:38	12:43	12:51	12:55	1:01
PM Service — Servicio vespertino												
29N	12:23	-	-	12:31	12:43	12:51	12:59	1:08	1:13	1:21	1:25	1:31
29K	-	12:54	1:04	-	1:13	1:21	1:29	1:38	1:43	1:51	1:55	2:01
29N	1:23	-	-	1:31	1:43	1:51	1:59	2:08	2:13	2:21	2:25	2:31
29K	-	1:54	2:04	-	2:13	2:21	2:29	2:38	2:43	2:51	2:55	3:01
29N	2:23	-	-	2:31	2:43	2:51	2:59	3:08	3:13	3:21	3:25	3:31
29K	-	2:54	3:04	-	3:13	3:21	3:29	3:38	3:43	3:51	3:55	4:01
29N	3:23	-	-	3:31	3:43	3:51	3:59	4:08	4:13	4:21	4:25	4:31
29K	-	3:54	4:04	-	4:13	4:21	4:29	4:38	4:43	4:51	4:55	5:01
29N	4:23	-	-	4:31	4:43	4:51	4:59	5:08	5:13	5:21	5:25	5:31
29K	-	4:54	5:04	-	5:13	5:21	5:29	5:38	5:43	5:51	5:55	6:01
29N	5:23	-	-	5:31	5:43	5:51	5:59	6:08	6:13	6:21	6:25	6:31
29K	-	5:59	6:09	-	6:18	6:26	6:33	6:39	6:43	6:51	6:55	7:01
29N	6:31	-	-	6:39	6:48	6:56	7:03	7:09	7:13	7:21	7:25	7:31
29K	-	6:59	7:09	-	7:18	7:26	7:33	7:39	7:43	7:51	7:55	8:01
29N	7:31	-	-	7:39	7:48	7:56	8:03	8:09	8:13	8:21	8:25	8:31
29K	-	7:59	8:09	-	8:18	8:26	8:33	8:39	8:43	8:51	8:55	9:01
29N	8:31	-	-	8:39	8:48	8:56	9:03	9:09	9:13	9:21	9:25	9:31
29K	-	8:59	9:09	-	9:18	9:26	9:33	9:39	9:43	9:51	9:55	10:01
29N	9:39	-	-	9:46	9:54	10:01	10:06	10:10	10:13	10:21	10:24	10:30

**—Limited stop segment – see map for list of designated stops*

29K,N

Alexandria-Fairfax Line

Westbound To Vienna station

Sunday — En domingo

Route Number	King St-Old Town (metro) *	Duke St. at Alexandria Commons Shopping Ctr. *	Duke & Jordan Sts. *	Landmark Mall *	Duke & Walker Sts.	Route 236 & Braddock Rd.	Route 236 & Annandale Rd.	Lake Dr. opposite Godwin Bldg. (NVCC)	Arlington Blvd. & Pickett Rd.	Route 236 & Stonewall Ave	Univ. Dr. & Geo. Mason Blvd. (GEO. MASON UNIV.)	VIENNA (south side) (metro)
AM Service — Servicio matutino												
29N	6:10	6:15	6:20	-	6:25	6:30	6:36	6:42	6:53	-	-	6:59
29K	6:40	6:45	6:50	-	6:55	7:00	7:06	7:12	-	7:23	7:31	-
29N	7:10	7:15	7:20	-	7:25	7:30	7:36	7:42	7:53	-	-	7:59
29K	7:40	7:45	7:50	-	7:55	8:00	8:06	8:12	-	8:23	8:31	-
29N	8:10	8:15	8:20	8:26	8:30	8:35	8:41	8:47	8:58	-	-	9:04
29K	8:40	8:45	8:50	8:56	9:00	9:05	9:11	9:17	-	9:28	9:36	-
29N	9:10	9:15	9:20	9:27	9:32	9:37	9:43	9:50	10:02	-	-	10:08
29K	9:40	9:45	9:50	9:57	10:02	10:07	10:13	10:20	-	10:31	10:39	-
29N	10:10	10:15	10:20	10:27	10:32	10:37	10:43	10:50	11:02	-	-	11:08
29K	10:40	10:45	10:50	10:57	11:02	11:07	11:13	11:20	-	11:31	11:39	-
29N	11:10	11:15	11:20	11:27	11:32	11:37	11:43	11:50	12:02	-	-	12:08
29K	11:40	11:45	11:50	11:57	12:02	12:07	12:13	12:20	-	12:31	12:39	-
PM Service — Servicio vespertino												
29N	12:10	12:15	12:20	12:27	12:32	12:37	12:43	12:50	1:02	-	-	1:08
29K	12:40	12:45	12:50	12:57	1:02	1:07	1:13	1:20	-	1:31	1:39	-
29N	1:10	1:17	1:22	1:31	1:35	1:42	1:50	1:57	2:08	-	-	2:15
29K	1:40	1:47	1:52	2:01	2:05	2:12	2:20	2:27	-	2:38	2:46	-
29N	2:10	2:17	2:22	2:31	2:35	2:42	2:50	2:57	3:08	-	-	3:15
29K	2:40	2:47	2:52	3:01	3:05	3:12	3:20	3:27	-	3:38	3:46	-
29N	3:10	3:17	3:22	3:31	3:35	3:42	3:50	3:57	4:08	-	-	4:15
29K	3:40	3:47	3:52	4:01	4:05	4:12	4:20	4:27	-	4:38	4:46	-
29N	4:10	4:17	4:22	4:31	4:35	4:42	4:50	4:57	5:08	-	-	5:15
29K	4:40	4:47	4:52	5:01	5:05	5:12	5:20	5:27	-	5:38	5:46	-
29N	5:10	5:15	5:21	5:29	5:32	5:39	5:46	5:54	6:05	-	-	6:12
29K	5:40	5:45	5:51	5:59	6:02	6:09	6:16	6:24	-	6:35	6:43	-
29N	6:10	6:15	6:21	6:29	6:32	6:39	6:46	6:54	7:05	-	-	7:12
29K	6:40	6:45	6:51	6:59	7:02	7:09	7:16	7:24	-	7:35	7:43	-
29N	7:10	7:15	7:21	7:29	7:32	7:39	7:46	7:54	8:05	-	-	8:12
29K	7:40	7:45	7:51	7:59	8:02	8:09	8:16	8:24	-	8:35	8:43	-
29N	8:10	8:15	8:19	8:26	8:29	8:34	8:41	8:48	8:58	-	-	9:02

✱—*Limited stop segment – see map for list of designated stops*

APPENDIX D
PEAK HOUR VEHICULAR, PEDESTRIAN, & BICYCLE COUNTS

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: School Street & Ox Road
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Maria & Judith
INPUTED BY: Jose

SOUTHBOUND ROAD: Ox Rd
NORTHBOUND ROAD: Ox Rd
WESTBOUND ROAD: School Street
EASTBOUND ROAD: School Street

Time Period	Southbound Ox Rd					Westbound School Street					Northbound Ox Rd					Eastbound School Street					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	0	37	2	39		1	0	1	2		2	116	0	118		0	2	1	3		157	5	162
6:15 AM - 6:30 AM	4	43	3	50		0	0	4	4		7	195	1	203		2	1	3	6		253	10	263
6:30 AM - 6:45 AM	0	66	0	66		3	1	2	6		3	218	0	221		0	6	3	9		287	15	302
6:45 AM - 7:00 AM	0	79	2	81		1	0	4	5		12	250	3	265		2	0	2	4		346	9	355
7:00 AM - 7:15 AM	2	129	4	135		2	1	4	7		14	270	0	284		2	3	2	7		419	14	433
7:15 AM - 7:30 AM	0	123	3	126		5	0	5	10		7	267	0	274		2	6	2	10		400	20	420
7:30 AM - 7:45 AM	5	135	2	142		7	1	8	16		10	299	0	309		3	9	8	20		451	36	487
7:45 AM - 8:00 AM	5	123	1	129		4	3	6	13		9	302	1	312		4	7	7	18		441	31	472
8:00 AM - 8:15 AM	4	162	10	176		6	1	7	14		10	297	0	307		5	7	2	14		483	28	511
8:15 AM - 8:30 AM	2	142	12	156		9	3	4	16		13	285	2	300		1	6	3	10		456	26	482
8:30 AM - 8:45 AM	2	153	10	165		2	2	7	11		11	254	1	266		2	1	3	6		431	17	448
8:45 AM - 9:00 AM	0	0	0	0		0	0	0	0		8	330	4	342		3	1	1	5		342	5	347
Total	24	1192	49	1265		40	12	52	104		106	3083	12	3201		26	49	37	112		4466	216	4682
AM One Hour Volumes																							
6:00 AM - 7:00 AM	4	225	7	236	0.73	5	1	11	17	0.71	24	779	4	807	0.76	4	9	9	22	0.61	1043	39	1082
6:15 AM - 7:15 AM	6	317	9	332	0.61	6	2	14	22	0.79	36	933	4	973	0.86	6	10	10	26	0.72	1305	48	1353
6:30 AM - 7:30 AM	2	397	9	408	0.76	11	2	15	28	0.70	36	1005	3	1044	0.92	6	15	9	30	0.75	1452	58	1510
6:45 AM - 7:45 AM	7	466	11	484	0.85	15	2	21	38	0.59	43	1086	3	1132	0.92	9	18	14	41	0.51	1616	79	1695
7:00 AM - 8:00 AM	12	510	10	532	0.94	18	5	23	46	0.72	40	1138	1	1179	0.94	11	25	19	55	0.69	1711	101	1812
7:15 AM - 8:15 AM	14	543	16	573	0.81	22	5	26	53	0.83	36	1165	1	1202	0.96	14	29	19	62	0.78	1775	115	1890
7:30 AM - 8:30 AM	**16**	**562**	**25**	**603**	**0.86**	**26**	**8**	**25**	**59**	**0.92**	**42**	**1183**	**3**	**1228**	**0.98**	**13**	**29**	**20**	**62**	**0.78**	**1831**	**121**	**1952**
7:45 AM - 8:45 AM	13	580	33	626	0.89	21	9	24	54	0.84	43	1138	4	1185	0.95	12	21	15	48	0.67	1811	102	1913
8:00 AM - 9:00 AM	8	457	32	497	0.71	17	6	18	41	0.64	42	1166	7	1215	0.89	11	15	9	35	0.63	1712	76	1788
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	1	170	6	177		2	1	4	7		8	131	4	143		4	1	3	8		320	15	335
4:15 PM - 4:30 PM	4	333	7	344		8	10	9	27		6	191	4	201		1	2	2	5		545	32	577
4:30 PM - 4:45 PM	4	310	7	321		7	4	15	26		4	175	1	180		3	4	3	10		501	36	537
4:45 PM - 5:00 PM	2	338	8	348		13	3	13	29		14	156	7	177		4	3	4	11		525	40	565
5:00 PM - 5:15 PM	2	251	7	260		4	5	8	17		3	161	3	167		4	3	5	12		427	29	456
5:15 PM - 5:30 PM	10	244	12	266		13	2	8	23		4	148	3	155		0	3	4	7		421	30	451
5:30 PM - 5:45 PM	5	265	12	282		11	8	8	27		6	105	31	142		0	6	2	8		424	35	459
5:45 PM - 6:00 PM	4	289	13	306		16	5	8	29		7	149	16	172		5	1	2	8		478	37	515
6:00 PM - 6:15 PM	2	210	3	215		5	5	6	16		9	149	4	162		2	0	3	5		377	21	398
6:15 PM - 6:30 PM	6	236	18	260		7	8	10	25		3	135	1	139		1	6	4	11		399	36	435
6:30 PM - 6:45 PM	7	219	12	238		5	2	9	16		8	148	8	164		7	2	5	14		402	30	432
6:45 PM - 7:00 PM	2	227	8	237		5	8	7	20		7	189	3	199		2	0	0	2		436	22	458
Total	49	3092	113	3254		96	61	105	262		79	1837	85	2001		33	31	37	101		5255	363	5618
PM One Hour Volumes																							
4:00 PM - 5:00 PM	11	1151	28	1190	0.85	30	18	41	89	0.77	32	653	16	701	0.87	12	10	12	34	0.77	1891	123	2014
4:15 PM - 5:15 PM	**12**	**1232**	**29**	**1273**	**0.91**	**32**	**22**	**45**	**99**	**0.85**	**27**	**683**	**15**	**725**	**0.90**	**12**	**12**	**14**	**38**	**0.79**	**1998**	**137**	**2135**
4:30 PM - 5:30 PM	18	1143	34	1195	0.86	37	14	44	95	0.82	25	640	14	679	0.94	11	13	16	40	0.83	1874	135	2009
4:45 PM - 5:45 PM	19	1098	39	1156	0.83	41	18	37	96	0.83	27	570	44	641	0.91	8	15	15	38	0.79	1797	134	1931
5:00 PM - 6:00 PM	21	1049	44	1114	0.91	44	20	32	96	0.83	20	563	53	636	0.92	9	13	13	35	0.73	1750	131	1881
5:15 PM - 6:15 PM	21	1008	40	1069	0.87	45	20	30	95	0.82	26	551	54	631	0.92	7	10	11	28	0.88	1700	123	1823
5:30 PM - 6:30 PM	17	1000	46	1063	0.87	39	26	32	97	0.84	25	538	52	615	0.89	8	13	11	32	0.73	1678	129	1807
5:45 PM - 6:45 PM	19	954	46	1019	0.83	33	20	33	86	0.74	27	581	29	637	0.93	15	9	14	38	0.68	1656	124	1780
6:00 PM - 7:00 PM	17	892	41	950	0.91	22	23	32	77	0.77	27	621	16	664	0.83	12	8	12	32	0.57	1614	109	1723

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: School Street & Ox Road
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Maria
INPUTED BY: Jose

SOUTHBOUND ROAD: Ox Rd
NORTHBOUND ROAD: Ox Rd
WESTBOUND ROAD: School Street
EASTBOUND ROAD: School Street

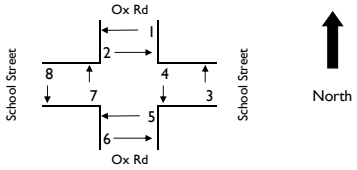
Time Period	Southbound Ox Rd				Westbound School Street				Northbound Ox Rd				Eastbound School Street				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
AM 15 Minute Volumes																			
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:45 AM - 8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	0	5	0	0	0	0	0	1	0	1	0	0	0	0	6	0	6
AM One Hour Volumes																			
6:00 AM - 7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:15 AM - 7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 AM - 7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:45 AM - 7:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
7:00 AM - 8:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
7:15 AM - 8:15 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4	0	4
7:30 AM - 8:30 AM	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**0**	**4**
7:45 AM - 8:45 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
8:00 AM - 9:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2
PM 15 Minute Volumes																			
4:00 PM - 4:15 PM	0	1	0	1	0	1	1	2	0	0	0	0	0	0	0	0	1	2	3
4:15 PM - 4:30 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3
4:30 PM - 4:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	1	1	2
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
6:30 PM - 6:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	1	3	1	2	1	4	0	4	0	4	0	2	0	2	7	6	13
PM One Hour Volumes																			
4:00 PM - 5:00 PM	0	2	1	3	1	1	1	3	0	1	0	1	0	1	0	1	4	4	8
4:15 PM - 5:15 PM	**0**	**1**	**1**	**2**	**1**	**0**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**3**	**2**	**5**
4:30 PM - 5:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	1	1	2
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
5:15 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3	0	3
5:30 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	3	1	4
5:45 PM - 6:45 PM	0	0	0	0	0	1	0	1	0	2	0	2	0	1	0	1	2	2	4
6:00 PM - 7:00 PM	0	0	0	0	0	1	0	1	0	2	0	2	0	1	0	1	2	2	4

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: School Street & Ox Road
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Judith
INPUTED BY: Jose



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
AM 15 Minute Volumes													
6:00 AM - 6:15 AM	1	0	0	0	0	0	0	0					
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0					
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0					
6:45 AM - 7:00 AM	0	0	1	0	0	1	1	0					
7:00 AM - 7:15 AM	0	0	0	1	0	0	1	1					
7:15 AM - 7:30 AM	0	0	0	3	0	0	0	1					
7:30 AM - 7:45 AM	0	0	0	1	0	0	0	0					
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0					
8:00 AM - 8:15 AM	0	1	0	1	0	0	0	1					
8:15 AM - 8:30 AM	1	0	0	1	0	0	0	4					
8:30 AM - 8:45 AM	0	1	2	0	0	0	0	4					
8:45 AM - 9:00 AM	1	0	1	2	0	0	0	5					
Total	3	2	4	9	0	1	2	16					
AM One Hour Volumes													
6:00 AM - 7:00 AM	1	0	1	0	0	1	1	0	1	1	1	1	4
6:15 AM - 7:15 AM	0	0	1	1	0	1	2	1	0	2	1	3	6
6:30 AM - 7:30 AM	0	0	1	4	0	1	2	2	0	5	1	4	10
6:45 AM - 7:45 AM	0	0	1	5	0	1	2	2	0	6	1	4	11
7:00 AM - 8:00 AM	0	0	0	5	0	0	1	2	0	5	0	3	8
7:15 AM - 8:15 AM	0	1	0	5	0	0	0	2	1	5	0	2	8
7:30 AM - 8:30 AM	**1**	**1**	**0**	**3**	**0**	**0**	**0**	**5**	**2**	**3**	**0**	**5**	**10**
7:45 AM - 8:45 AM	1	2	2	2	0	0	0	9	3	4	0	9	16
8:00 AM - 9:00 AM	2	2	3	4	0	0	0	14	4	7	0	14	25
PM 15 Minute Volumes													
4:00 PM - 4:15 PM	0	1	2	3	0	0	3	4					
4:15 PM - 4:30 PM	0	1	4	0	0	0	3	8					
4:30 PM - 4:45 PM	1	0	2	0	0	0	2	1					
4:45 PM - 5:00 PM	0	0	2	0	0	0	4	4					
5:00 PM - 5:15 PM	0	0	1	0	0	0	3	1					
5:15 PM - 5:30 PM	0	0	3	1	0	0	3	4					
5:30 PM - 5:45 PM	1	0	1	0	0	0	1	3					
5:45 PM - 6:00 PM	1	0	0	0	0	0	3	0					
6:00 PM - 6:15 PM	0	1	3	0	0	0	1	2					
6:15 PM - 6:30 PM	0	1	3	0	0	0	2	3					
6:30 PM - 6:45 PM	0	0	0	0	0	0	1	1					
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	3					
Total	3	4	21	4	0	0	26	34					
PM One Hour Volumes													
4:00 PM - 5:00 PM	1	2	10	3	0	0	12	17	3	13	0	29	45
4:15 PM - 5:15 PM	**1**	**1**	**9**	**0**	**0**	**0**	**12**	**14**	**2**	**9**	**0**	**26**	**37**
4:30 PM - 5:30 PM	1	0	8	1	0	0	12	10	1	9	0	22	32
4:45 PM - 5:45 PM	1	0	7	1	0	0	11	12	1	8	0	23	32
5:00 PM - 6:00 PM	2	0	5	1	0	0	10	8	2	6	0	18	26
5:15 PM - 6:15 PM	2	1	7	1	0	0	8	9	3	8	0	17	28
5:30 PM - 6:30 PM	2	2	7	0	0	0	7	8	4	7	0	15	26
5:45 PM - 6:45 PM	1	2	6	0	0	0	7	6	3	6	0	13	22
6:00 PM - 7:00 PM	0	2	6	0	0	0	4	9	2	6	0	13	21

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Santa Clara Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Halid
INPUTED BY: agan

SOUTHBOUND ROAD: Santa Clara Drive
NORTHBOUND ROAD: Santa Clara Drive
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: 0

Time Period	Southbound Santa Clara Drive					Westbound University Drive					Northbound Santa Clara Drive					Eastbound 0					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	0	0	1	1		1	0	4	5		5	0	0	5		0	0	0	0		6	5	11
6:15 AM - 6:30 AM	0	0	2	2		0	0	5	5		10	0	0	10		0	0	0	0		12	5	17
6:30 AM - 6:45 AM	0	1	4	5		1	0	1	2		14	0	0	14		0	0	0	0		19	2	21
6:45 AM - 7:00 AM	0	0	1	1		3	0	4	7		13	0	0	13		0	0	0	0		14	7	21
7:00 AM - 7:15 AM	0	0	4	4		0	0	4	4		13	0	0	13		0	0	0	0		17	4	21
7:15 AM - 7:30 AM	0	1	1	2		1	0	9	10		17	0	0	17		0	0	0	0		19	10	29
7:30 AM - 7:45 AM	0	2	4	6		2	0	10	12		32	0	0	32		0	0	0	0		38	12	50
7:45 AM - 8:00 AM	0	0	4	4		1	0	8	9		30	0	0	30		0	0	0	0		34	9	43
8:00 AM - 8:15 AM	0	0	2	2		3	0	15	18		16	0	0	16		0	0	0	0		18	18	36
8:15 AM - 8:30 AM	0	0	3	3		0	0	15	15		17	0	0	17		0	0	0	0		20	15	35
8:30 AM - 8:45 AM	0	1	2	3		3	0	11	14		15	0	0	15		0	0	0	0		18	14	32
8:45 AM - 9:00 AM	0	0	2	2		1	0	11	12		34	1	0	35		0	0	0	0		37	12	49
Total	0	5	30	35		16	0	97	113		216	1	0	217		0	0	0	0		252	113	365
AM One Hour Volumes																							
6:00 AM - 7:00 AM	0	1	8	9	0.45	5	0	14	19	0.68	42	0	0	42	0.75	0	0	0	0	0.00	51	19	70
6:15 AM - 7:15 AM	0	1	11	12	0.60	4	0	14	18	0.64	50	0	0	50	0.89	0	0	0	0	0.00	62	18	80
6:30 AM - 7:30 AM	0	2	10	12	0.60	5	0	18	23	0.58	57	0	0	57	0.84	0	0	0	0	0.00	69	23	92
6:45 AM - 7:45 AM	0	3	10	13	0.54	6	0	27	33	0.69	75	0	0	75	0.59	0	0	0	0	0.00	88	33	121
7:00 AM - 8:00 AM	0	3	13	16	0.67	4	0	31	35	0.73	92	0	0	92	0.72	0	0	0	0	0.00	108	35	143
7:15 AM - 8:15 AM	0	3	11	14	0.58	7	0	42	49	0.68	95	0	0	95	0.74	0	0	0	0	0.00	109	49	158
7:30 AM - 8:30 AM	0	2	13	15	0.63	6	0	48	54	0.75	95	0	0	95	0.74	0	0	0	0	0.00	110	54	164
7:45 AM - 8:45 AM	0	1	11	12	0.75	7	0	49	56	0.78	78	0	0	78	0.65	0	0	0	0	0.00	90	56	146
8:00 AM - 9:00 AM	**0**	**1**	**9**	**10**	**0.83**	**7**	**0**	**52**	**59**	**0.82**	**82**	**1**	**0**	**83**	**0.59**	**0**	**0**	**0**	**0**	**0.00**	**93**	**59**	**152**
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	0	0	10	10		6	0	26	32		32	3	0	35		0	0	0	0		45	32	77
4:15 PM - 4:30 PM	0	0	3	3		3	0	25	28		23	1	0	24		0	0	0	0		27	28	55
4:30 PM - 4:45 PM	0	0	6	6		4	0	27	31		24	1	0	25		0	0	0	0		31	31	62
4:45 PM - 5:00 PM	0	0	1	1		3	0	32	35		20	0	0	20		0	0	0	0		21	35	56
5:00 PM - 5:15 PM	0	0	1	1		5	0	26	31		25	4	0	29		0	0	0	0		30	31	61
5:15 PM - 5:30 PM	0	0	6	6		12	0	29	41		20	0	0	20		0	0	0	0		26	41	67
5:30 PM - 5:45 PM	0	0	3	3		7	0	12	19		23	0	0	23		0	0	0	0		26	19	45
5:45 PM - 6:00 PM	0	0	2	2		5	0	24	29		12	0	0	12		0	0	0	0		14	29	43
6:00 PM - 6:15 PM	0	0	2	2		5	0	19	24		18	1	0	19		0	0	0	0		21	24	45
6:15 PM - 6:30 PM	0	0	5	5		6	0	8	14		12	1	0	13		0	0	0	0		18	14	32
6:30 PM - 6:45 PM	0	0	5	5		4	0	14	18		14	0	0	14		0	0	0	0		19	18	37
6:45 PM - 7:00 PM	0	0	6	6		5	0	21	26		13	0	0	13		0	0	0	0		19	26	45
Total	0	0	50	50		65	0	263	328		236	11	0	247		0	0	0	0		297	328	625
PM One Hour Volumes																							
4:00 PM - 5:00 PM	**0**	**0**	**20**	**20**	**0.50**	**16**	**0**	**110**	**126**	**0.90**	**99**	**5**	**0**	**104**	**0.74**	**0**	**0**	**0**	**0**	**0.00**	**124**	**126**	**250**
4:15 PM - 5:15 PM	0	0	11	11	0.46	15	0	110	125	0.89	92	6	0	98	0.84	0	0	0	0	0.00	109	125	234
4:30 PM - 5:30 PM	0	0	14	14	0.58	24	0	114	138	0.84	89	5	0	94	0.81	0	0	0	0	0.00	108	138	246
4:45 PM - 5:45 PM	0	0	11	11	0.46	27	0	99	126	0.77	88	4	0	92	0.79	0	0	0	0	0.00	103	126	229
5:00 PM - 6:00 PM	0	0	12	12	0.50	29	0	91	120	0.73	80	4	0	84	0.72	0	0	0	0	0.00	96	120	216
5:15 PM - 6:15 PM	0	0	13	13	0.54	29	0	84	113	0.69	73	1	0	74	0.80	0	0	0	0	0.00	87	113	200
5:30 PM - 6:30 PM	0	0	12	12	0.60	23	0	63	86	0.74	65	2	0	67	0.73	0	0	0	0	0.00	79	86	165
5:45 PM - 6:45 PM	0	0	14	14	0.70	20	0	65	85	0.73	56	2	0	58	0.76	0	0	0	0	0.00	72	85	157
6:00 PM - 7:00 PM	0	0	18	18	0.75	20	0	62	82	0.79	57	2	0	59	0.78	0	0	0	0	0.00	77	82	159

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Santa Clara Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Halid
INPUTED BY: agan

SOUTHBOUND ROAD: Santa Clara Drive
NORTHBOUND ROAD: Santa Clara Drive
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: 0

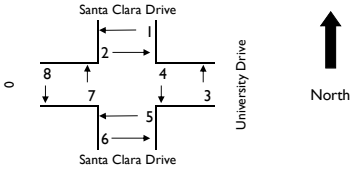
Time Period	Southbound Santa Clara Drive				Westbound University Drive				Northbound Santa Clara Drive				Eastbound 0				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
AM 15 Minute Volumes																			
6:00 AM - 6:15 AM				0				0				0				0	0	0	0
6:15 AM - 6:30 AM				0				0		1		1				0	1	0	1
6:30 AM - 6:45 AM				0				0				0				0	0	0	0
6:45 AM - 7:00 AM				0				0	1			1				0	1	0	1
7:00 AM - 7:15 AM				0				0				0				0	0	0	0
7:15 AM - 7:30 AM		1		1				0				0				0	1	0	1
7:30 AM - 7:45 AM		2		2				0	1			1				0	3	0	3
7:45 AM - 8:00 AM		1		1				0		1		1				0	2	0	2
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		2		2				0				0				0	2	0	2
8:45 AM - 9:00 AM		1		1				0				0				0	1	0	1
Total	0	7	0	7	0	0	0	0	2	2	0	4	0	0	0	0	11	0	11
AM One Hour Volumes																			
6:00 AM - 7:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2	0	2
6:15 AM - 7:15 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2	0	2
6:30 AM - 7:30 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2	0	2
6:45 AM - 7:45 AM	0	3	0	3	0	0	0	0	2	0	0	2	0	0	0	0	5	0	5
7:00 AM - 8:00 AM	0	4	0	4	0	0	0	0	1	1	0	2	0	0	0	0	6	0	6
7:15 AM - 8:15 AM	0	4	0	4	0	0	0	0	1	1	0	2	0	0	0	0	6	0	6
7:30 AM - 8:30 AM	0	3	0	3	0	0	0	0	1	1	0	2	0	0	0	0	5	0	5
7:45 AM - 8:45 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4	0	4
8:00 AM - 9:00 AM	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**
PM 15 Minute Volumes																			
4:00 PM - 4:15 PM				0				0				0				0	0	0	0
4:15 PM - 4:30 PM		1		1				0	1			1				0	2	0	2
4:30 PM - 4:45 PM		1		1				0		3		3				0	4	0	4
4:45 PM - 5:00 PM				0				0		1		1				0	1	0	1
5:00 PM - 5:15 PM				0				0		2		2				0	2	0	2
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	1			1				0	1	0	1
6:00 PM - 6:15 PM		1		1				0		1		1				0	2	0	2
6:15 PM - 6:30 PM		1		1				0				0				0	1	0	1
6:30 PM - 6:45 PM				0				0				0				0	0	0	0
6:45 PM - 7:00 PM				0				0	1			1				0	1	0	1
Total	0	4	0	4	0	0	0	0	3	7	0	10	0	0	0	0	14	0	14
PM One Hour Volumes																			
4:00 PM - 5:00 PM	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**4**	**0**	**5**	**0**	**0**	**0**	**0**	**7**	**0**	**7**
4:15 PM - 5:15 PM	0	2	0	2	0	0	0	0	1	6	0	7	0	0	0	0	9	0	9
4:30 PM - 5:30 PM	0	1	0	1	0	0	0	0	0	6	0	6	0	0	0	0	7	0	7
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3	0	3
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	3	0	3
5:15 PM - 6:15 PM	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0	3	0	3
5:30 PM - 6:30 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4
5:45 PM - 6:45 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4
6:00 PM - 7:00 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4	0	4

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Santa Clara Dr.
LOCATION: Fairfax County,VA
DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Halid
INPUTED BY: agan



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

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Chancery Park Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Matt
INPUTED BY: agan

SOUTHBOUND ROAD: Chancery Park Drive
NORTHBOUND ROAD: Chancery Park Drive
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound Chancery Park Drive					Westbound University Drive					Northbound Chancery Park Drive					Eastbound University Drive					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	0	0	0	0		0	4	0	4		0	0	0	0		0	7	0	7		0	11	11
6:15 AM - 6:30 AM	0	0	0	0		0	2	0	2		0	0	0	0		0	9	0	9		0	11	11
6:30 AM - 6:45 AM	0	0	3	3		0	2	0	2		0	0	0	0		0	14	0	14		3	16	19
6:45 AM - 7:00 AM	0	0	0	0		1	5	0	6		0	0	0	0		0	13	0	13		0	19	19
7:00 AM - 7:15 AM	0	0	0	0		0	6	0	6		0	0	0	0		0	13	0	13		0	19	19
7:15 AM - 7:30 AM	1	0	0	1		1	8	0	9		0	0	0	0		0	14	0	14		1	23	24
7:30 AM - 7:45 AM	0	0	2	2		1	9	0	10		0	0	0	0		0	38	0	38		2	48	50
7:45 AM - 8:00 AM	1	0	3	4		2	12	0	14		0	0	0	0		0	36	1	37		4	51	55
8:00 AM - 8:15 AM	3	0	2	5		1	15	0	16		0	0	0	0		0	20	0	20		5	36	41
8:15 AM - 8:30 AM	0	0	2	2		2	17	0	19		0	0	0	0		0	19	1	20		2	39	41
8:30 AM - 8:45 AM	0	0	1	1		0	20	0	20		0	0	0	0		0	8	0	8		1	28	29
8:45 AM - 9:00 AM	0	0	1	1		1	15	0	16		0	0	0	0		0	37	0	37		1	53	54
Total	5	0	14	19		9	115	0	124		0	0	0	0		0	228	2	230		19	354	373
AM One Hour Volumes																							
6:00 AM - 7:00 AM	0	0	3	3	0.25	1	13	0	14	0.58	0	0	0	0	0.00	0	43	0	43	0.77	3	57	60
6:15 AM - 7:15 AM	0	0	3	3	0.25	1	15	0	16	0.67	0	0	0	0	0.00	0	49	0	49	0.88	3	65	68
6:30 AM - 7:30 AM	1	0	3	4	0.33	2	21	0	23	0.64	0	0	0	0	0.00	0	54	0	54	0.96	4	77	81
6:45 AM - 7:45 AM	1	0	2	3	0.38	3	28	0	31	0.78	0	0	0	0	0.00	0	78	0	78	0.51	3	109	112
7:00 AM - 8:00 AM	2	0	5	7	0.44	4	35	0	39	0.70	0	0	0	0	0.00	0	101	1	102	0.67	7	141	148
7:15 AM - 8:15 AM	5	0	7	12	0.60	5	44	0	49	0.77	0	0	0	0	0.00	0	108	1	109	0.72	12	158	170
7:30 AM - 8:30 AM	4	0	9	13	0.65	6	53	0	59	0.78	0	0	0	0	0.00	0	113	2	115	0.76	13	174	187
7:45 AM - 8:45 AM	4	0	8	12	0.60	5	64	0	69	0.86	0	0	0	0	0.00	0	83	2	85	0.57	12	154	166
8:00 AM - 9:00 AM	**3**	**0**	**6**	**9**	**0.45**	**4**	**67**	**0**	**71**	**0.89**	**0**	**0**	**0**	**0**	**0.00**	**0**	**84**	**1**	**85**	**0.57**	**9**	**156**	**165**
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	2	0	2	4		6	26	0	32		0	0	0	0		0	39	1	40		4	72	76
4:15 PM - 4:30 PM	1	0	0	1		0	28	0	28		0	0	0	0		0	30	1	31		1	59	60
4:30 PM - 4:45 PM	1	0	1	2		7	31	0	38		0	0	0	0		0	29	3	32		2	70	72
4:45 PM - 5:00 PM	0	0	2	2		2	33	0	35		0	0	0	0		0	19	1	20		2	55	57
5:00 PM - 5:15 PM	2	0	0	2		4	32	0	36		0	0	0	0		0	28	1	29		2	65	67
5:15 PM - 5:30 PM	7	0	1	8		2	33	0	35		0	0	0	0		0	27	1	28		8	63	71
5:30 PM - 5:45 PM	1	0	1	2		1	11	0	12		0	0	0	0		0	17	1	18		2	30	32
5:45 PM - 6:00 PM	0	0	2	2		7	37	0	44		0	0	0	0		0	22	0	22		2	66	68
6:00 PM - 6:15 PM	0	0	1	1		4	27	0	31		0	0	0	0		0	20	1	21		1	52	53
6:15 PM - 6:30 PM	0	0	1	1		2	18	0	20		0	0	0	0		0	17	0	17		1	37	38
6:30 PM - 6:45 PM	2	0	0	2		0	24	0	24		0	0	0	0		0	18	0	18		2	42	44
6:45 PM - 7:00 PM	1	0	1	2		1	17	0	18		0	0	0	0		0	18	1	19		2	37	39
Total	17	0	12	29		36	317	0	353		0	0	0	0		0	284	11	295		29	648	677
PM One Hour Volumes																							
4:00 PM - 5:00 PM	**4**	**0**	**5**	**9**	**0.56**	**15**	**118**	**0**	**133**	**0.88**	**0**	**0**	**0**	**0**	**0.00**	**0**	**117**	**6**	**123**	**0.77**	**9**	**256**	**265**
4:15 PM - 5:15 PM	4	0	3	7	0.88	13	124	0	137	0.90	0	0	0	0	0.00	0	106	6	112	0.88	7	249	256
4:30 PM - 5:30 PM	10	0	4	14	0.44	15	129	0	144	0.95	0	0	0	0	0.00	0	103	6	109	0.85	14	253	267
4:45 PM - 5:45 PM	10	0	4	14	0.44	9	109	0	118	0.82	0	0	0	0	0.00	0	91	4	95	0.82	14	213	227
5:00 PM - 6:00 PM	10	0	4	14	0.44	14	113	0	127	0.72	0	0	0	0	0.00	0	94	3	97	0.84	14	224	238
5:15 PM - 6:15 PM	8	0	5	13	0.41	14	108	0	122	0.69	0	0	0	0	0.00	0	86	3	89	0.79	13	211	224
5:30 PM - 6:30 PM	1	0	5	6	0.75	14	93	0	107	0.61	0	0	0	0	0.00	0	76	2	78	0.89	6	185	191
5:45 PM - 6:45 PM	2	0	4	6	0.75	13	106	0	119	0.68	0	0	0	0	0.00	0	77	1	78	0.89	6	197	203
6:00 PM - 7:00 PM	3	0	3	6	0.75	7	86	0	93	0.75	0	0	0	0	0.00	0	73	2	75	0.89	6	168	174

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Chancyery Park Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Matt
INPUTED BY: agan

SOUTHBOUND ROAD: Chancery Park Drive
NORTHBOUND ROAD: Chancery Park Drive
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

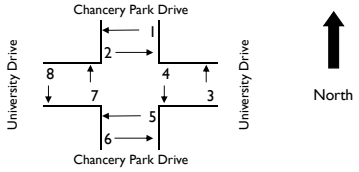
Time Period	Southbound Chancery Park Drive				Westbound University Drive				Northbound Chancery Park Drive				Eastbound University Drive				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
AM 15 Minute Volumes																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

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Dr. & Chancery Park Dr.
LOCATION: Fairfax County,VA
DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Matt
INPUTED BY: agan



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
AM 15 Minute Volumes													
6:00 AM - 6:15 AM													
6:15 AM - 6:30 AM													
6:30 AM - 6:45 AM													
6:45 AM - 7:00 AM													
7:00 AM - 7:15 AM	1	1											
7:15 AM - 7:30 AM													
7:30 AM - 7:45 AM													
7:45 AM - 8:00 AM	1	2											
8:00 AM - 8:15 AM		1											
8:15 AM - 8:30 AM		2											
8:30 AM - 8:45 AM	3	4											
8:45 AM - 9:00 AM	3	4											
Total	8	14	0	0	0	0	0	0					
AM 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	1	1	0	0	0	0	0	0	2	0	0	0	2
6:30 AM - 7:30 AM	1	1	0	0	0	0	0	0	2	0	0	0	2
6:45 AM - 7:45 AM	1	1	0	0	0	0	0	0	2	0	0	0	2
7:00 AM - 8:00 AM	2	3	0	0	0	0	0	0	5	0	0	0	5
7:15 AM - 8:15 AM	1	3	0	0	0	0	0	0	4	0	0	0	4
7:30 AM - 8:30 AM	1	5	0	0	0	0	0	0	6	0	0	0	6
7:45 AM - 8:45 AM	4	9	0	0	0	0	0	0	13	0	0	0	13
8:00 AM - 9:00 AM	**6**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**17**
PM 15 Minute Volumes													
4:00 PM - 4:15 PM	9	19											
4:15 PM - 4:30 PM	17												
4:30 PM - 4:45 PM	2												
4:45 PM - 5:00 PM	1												
5:00 PM - 5:15 PM		1											
5:15 PM - 5:30 PM													
5:30 PM - 5:45 PM		2											
5:45 PM - 6:00 PM													
6:00 PM - 6:15 PM													
6:15 PM - 6:30 PM													
6:30 PM - 6:45 PM	1	2											
6:45 PM - 7:00 PM													
Total	30	24	0	0	0	0	0	0					
PM One Hour Volumes													
4:00 PM - 5:00 PM	**29**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**0**	**0**	**0**	**48**
4:15 PM - 5:15 PM	20	1	0	0	0	0	0	0	21	0	0	0	21
4:30 PM - 5:30 PM	3	1	0	0	0	0	0	0	4	0	0	0	4
4:45 PM - 5:45 PM	1	3	0	0	0	0	0	0	4	0	0	0	4
5:00 PM - 6:00 PM	0	3	0	0	0	0	0	0	3	0	0	0	3
5:15 PM - 6:15 PM	0	2	0	0	0	0	0	0	2	0	0	0	2
5:30 PM - 6:30 PM	0	2	0	0	0	0	0	0	2	0	0	0	2
5:45 PM - 6:45 PM	1	2	0	0	0	0	0	0	3	0	0	0	3
6:00 PM - 7:00 PM	1	2	0	0	0	0	0	0	3	0	0	0	3

McLean, Virginia

Turning Movement Count - Total Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & St. Edwards Pl Lot P Driveway
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Zilko
INPUTED BY: Jose

SOUTHBOUND ROAD: St. Edwards Pl Lot P Driveway
NORTHBOUND ROAD: St. Edwards Pl Lot P Driveway
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound St. Edwards Pl Lot P Driveway					Westbound University Drive					Northbound St. Edwards Pl Lot P Driveway					Eastbound University Drive					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
15 Minute Volumes																							
6:00 AM - 6:15 AM							5		5								6		6			11	11
6:15 AM - 6:30 AM			1	1			5		5							1	14		15		1	20	21
6:30 AM - 6:45 AM	1		3	4		3	7		10								16		16		4	26	30
6:45 AM - 7:00 AM			2	2			12	1	13								21		21		2	34	36
7:00 AM - 7:15 AM			1	1		2	8		10							1	17		18		1	28	29
7:15 AM - 7:30 AM			1	1		3	21		24		1		1				21		21		2	45	47
7:30 AM - 7:45 AM	1		3	4			13		13		1		1				52		52		5	65	70
7:45 AM - 8:00 AM			2	2			19	3	22								41		41		2	63	65
8:00 AM - 8:15 AM	1	1	2	4		3	18		21		1	1		2			21		21		6	42	48
8:15 AM - 8:30 AM	1		2	3		1	13		14				1	1		2	18		20		4	34	38
8:30 AM - 8:45 AM	1		1	2		2	21	3	26				1	1		1	23	2	26		3	52	55
8:45 AM - 9:00 AM	2		1	3			13	4	17		1		1	2		2	36	2	40		5	57	62
9:00 AM - 9:15 AM			1	1		1	24		25								29		29		1	54	55
9:15 AM - 9:30 AM	1			1		2	10	3	15							2	25		27		1	42	43
9:30 AM - 9:45 AM			2	2		3	12	1	16								17	1	18		2	34	36
9:45 AM - 10:00 AM	1			1			10	2	12							1	12		13		1	25	26
10:00 AM - 10:15 AM			1	1		3	10	4	17		2			2		1	15		16		3	33	36
10:15 AM - 10:30 AM			1	1		1	19	6	26		3			3		1	15		16		4	42	46
10:30 AM - 10:45 AM						1	11	1	13		1			1			10		10		1	23	24
10:45 AM - 11:00 AM						2	13	3	18		2			2			15		15		2	33	35
11:00 AM 11:15 AM			2	2			7	3	10		3			3			16		16		5	26	31
11:15 AM 11:30 AM							7	2	9		1			1		1	7		8		1	17	18
11:30 AM 11:45 AM			1	1		1	9	1	11		2		1	3		1	11		12		4	23	27
11:45 AM 12:00 PM	1			1		2	8	2	12		3			3			22		22		4	34	38
12:00 PM 12:15 PM			3	3		1	10	1	12		3			3			10		10		6	22	28
12:15 PM 12:30 PM			2	2		1	17	1	19		1			1			20		20		3	39	42
12:30 PM 12:45 PM			3	3		1	7		8		2		2	4		2	13		15		7	23	30
12:45 PM 1:00 PM	1		2	3		2	17	4	23		2			2			15	1	16		5	39	44
1:00 PM 1:15 PM			1	1		1	21	3	25		2		1	3		2	21		23		4	48	52
1:15 PM 1:30 PM	1		1	2		2	15		17		3			3			12	1	13		5	30	35
1:30 PM 1:45 PM			2	2		1	19	1	21		5		2	7			10		10		9	31	40
1:45 PM 2:00 PM			2	2			7		7		4			4		1	14	1	16		6	23	29
2:00 PM 2:15 PM			1	1		3	15		18		4			4			19		19		5	37	42
2:15 PM 2:30 PM			1	1		2	13	5	20		3			3			15		15		4	35	39
2:30 PM 2:45 PM			3	3		4	17	1	22		1		1	2			26		26		5	48	53
2:45 PM 3:00 PM			2	2			19		19		12			12			25	3	28		14	47	61
3:00 PM 3:15 PM	2		1	3		4	15		19		6		1	7			18	1	19		10	38	48
3:15 PM 3:30 PM						4	28	1	33		7			7			24	1	25		7	58	65
3:30 PM 3:45 PM			2	2		2	37		39		3			3			13		13		5	52	57
3:45 PM 4:00 PM	1			1			34	2	36		6		2	8			7		7		9	43	52
4:00 PM 4:15 PM			1	1		2	33	3	38		3			3			41		41		4	79	83
4:15 PM 4:30 PM	1		2	3		2	31	1	34		9		1	10			31	2	33		13	67	80
4:30 PM 4:45 PM			2	2			37	2	39		13		3	16		1	23	1	25		18	64	82
4:45 PM 5:00 PM						3	25		28		3			3			15	1	16		3	44	47
5:00 PM 5:15 PM	2		1	3		1	22		23		3		1	4			16	1	17		7	40	47
5:15 PM 5:30 PM			1	1		1	27		28		2		2	4			15	2	17		5	45	50
5:30 PM 5:45 PM			1	1		1	24		25				2	2			20		20		3	45	48
5:45 PM 6:00 PM			4	4		2	31		33		3			3			16	3	19		7	52	59
6:00 PM 6:15 PM	1		3	4		3	32		35		3		1	4			20		20		8	55	63
6:15 PM 6:30 PM			1	1		1	26		27		4		1	5			22		22		6	49	55
6:30 PM 6:45 PM	1			1		2	31	1	34								14	1	15		1	49	50
6:45 PM 7:00 PM	2			2												3	28	4	35		2	35	37
Total	22	1	69	92		76	905	65	1046		128	1	24	153		23	1003	28	1054		245	2100	2345
One Hour Volumes																							
6:00 AM - 7:00 AM	1		6	7	0.4375	3	29	1	33	0.6346154						1	57		58	0.69048	7	91	98
6:15 AM - 7:15 AM	1		7	8	0.5	5	32	1	38	0.7307692						2	68		70	0.83333	8	108	116
6:30 AM - 7:30 AM	1		7	8	0.5	8	48	1	57	0.59375	1			1	0.25	1	75		76	0.90476	9	133	142
6:45 AM - 7:45 AM	1		7	8	0.5	5	54	1	60	0.625	2			2	0.5	1	111		112	0.53846	10	172	182
7:00 AM - 8:00 AM	1		7	8	0.5	5	61	3	69	0.71875	2			2	0.5	1	131		132	0.63462	10	201	211
7:15 AM - 8:15 AM	2	1	8	11	0.6875	6	71	3	80	0.8333333	3	1		4	0.5		135		135	0.64904	15	215	230
7:30 AM - 8:30 AM	3	1	9	13	0.8125	4	63	3	70	0.7954545	2	1	1	4	0.5	2	132		134	0.64423	17	204	221
7:45 AM - 8:45 AM	3	1	7	11	0.6875	6	71	6	83	0.7980769	1	1	2	4	0.5	3	103	2	108	0.65854	15	191	206
8:00 AM - 9:00 AM	**5**	**1**	**6**	**12**	**0.75**	**6**	**65**	**7**	**78**	**0.75**	**2**	**1**	**3**	**6**	**0.75**	**5**	**98**	**4**	**107**	**0.66875**	**18**	**185**	**203**
8:15 AM - 9:15 AM	4		5	9	0.75	4	71	7	82	0.7884615	1		3	4	0.5	5	106	4	115	0.71875	13	197	210
8:30 AM - 9:30 AM	4		3	7	0.5833333	5	68	10	83	0.7980769	1		2	3	0.375	5	113	4	122	0.7625	10	205	215
8:45 AM - 9:45 AM	3		4	7	0.5833333	6	59	8	73	0.73	1		1	2	0.25	4	107	3	114	0.7125	9	187	196
9:00 AM 10:00 AM	2		3	5	0.625	6	56	6	68	0.68						3	83	1	87	0.75	5	155	160
9:15 AM 10:15 AM	2		3	5	0.625	8	42	10	60	0.8823529	2			2	0.25	4	69	1	74	0.68519	7	134	141
9:30 AM 10:30 AM	1		4	5	0.625	7	51	13	71	0.6826923	5			5	0.41667	3	59	1	63	0.875	10	134	144
9:45 AM 10:45 AM	1		2	3	0.75	5	50	13	68	0.6538462	6			6	0.5	3	52		55	0.85938	9	123	132
10:00 AM 11:00 AM			2	2	0.5	7	53	14	74	0.7115385	8			8	0.66667	2	55		57	0.89063	10	131	141
10:15 AM 11:15 AM			3	3	0.375	4	50	13	67	0.6442308	9			9	0.75	1	56		57	0.89063	12	124	136
10:30 AM 11:30 AM			2	2	0.25	3	38	9	50	0.6944444	7			7	0.58333	1	48		49	0.76563	9	99	108
10:45 AM 11:45 AM			3	3	0.375	3	36	9	48	0.6666667	8		1	9	0.75	2	49		51	0.79688	12	99	111
11:00 AM 12:00 PM	1		3	4	0.5	3	31	8	42	0.875	9		1	10	0.83333	2	56		58	0.65909	14	100	114
11:15 AM 12:15 PM	1		4	5	0.4166667	4	34	6	44	0.9166667	9		1	10	0.83333	2	50		52	0.59091	15	96	111
11:30 AM 12:30 PM	1		6	7	0.5833333	5	44	5	54	0.7105263	9		1	10	0.83333	1	63		64	0.72727	17	118	135
11:45 AM 12:45 PM	1		8	9	0.75	5	42	4	51	0.6710526	9		2	11	0.6875	2	65		67	0.76136	20	118	138
12:00 PM 1:00 PM	1		10	11	0.9166667	5	51	6	62	0.673913	8		2	10	0.625	2	58	1	61	0.7625	21	123	144
12:15 PM 1:15 PM	1		8	9	0.75	5	62	8	75	0.75	7		3	10	0.625	4	69	1	74	0.80435	19	149	168
12:30 PM 1:30 PM	2		7	9	0.75	6	60	7	73	0.73	9		3	12	0.75	4	61	2	67	0.72826	21	140	161
12:45 PM 1:45 PM	2		6	8	0.6666667	6	72	8	86	0.86	12		3	15	0.53571	2	58	2	62	0.67391	23	148	171
1:00 PM 2:00 PM	1		6	7	0.875	4	62	4	70	0.7	14		3	17	0.60714	3	57	2	62	0.67391	24	132	156
1:15 PM 2:15 PM	1		6	7	0.875	6	56	1	63	0.75	16		2	18	0.64286	1	55	2	58	0.76316	25	121	146
1:30 PM 2:30 PM			6	6	0.75	6	54	6	66	0.7857143	16		2	18	0.64286	1	58	1	60	0.78947	24	126	150
1:45 PM 2:45 PM			7	7	0.5833333	9	52	6	67	0.7613636	12		1	13	0.8125	1	74	1	76	0.73077	20	143	163
2:00 PM 3:00 PM			7	7	0.5833333	9	64	6	79	0.8977273	20		1	21	0.4375		85	3	88	0.78571	28	167	195
2:15 PM 3:15 PM	2		7	9	0.75	10	64	6	80	0.9090909	22		2	24	0.5		84	4	88	0.78571	33	168	201
2:30 PM 3:30 PM	2		6	8	0.6666667	12	79	2	93	0.7045455	26		2	28	0.58333		93	5	98	0.875	36	191	227
2:45 PM 3:45 PM	2		5	7	0.5833333	10	99	1	110	0.7051282	28		1	29	0.60417		80	5	85	0.75893	36	195	231
3:00 PM 4:00 PM	3		3	6	0.5	10	114	3	127	0.8141026	22		3	25	0.78125		62	2	64	0.64	31	191	222
3:15 PM 4:15 PM	1		3	4	0.5	8	132	6	146	0.9358974	19		2	21	0.65625		85	1	86	0.52439	25	232	257
3:30 PM 4:30 PM	2		5	7	0.5833333	6	135	6	147	0.9423077	21		3	24	0.6		92	2	94	0.57317	31	241	272
3:45 PM 4:45 PM	2		5	7	0.5833333	4	135	8	147	0.9423077	31		6	37	0.57813	1	102	3	106	0.64634	44	253	297
4:00 PM 5:00 PM	**1**		**5**	**6**	**0.5**	**7**	**126**	**6**	**139**	**0.8910256**	**28**		**4**	**32**	**0.5**	**1**	**110**	**4**	**115**	**0.70122**	**38**	**254**	**292**
4:15 PM 5:15 PM	3		5	8	0.6666667	6	115	3	124	0.7948718	28		5	33	0.51563	1	85	5	91	0.68939	41	215	256
4:30 PM 5:30 PM	2		4	6	0.5	5	111	2	118	0.7564103	21		6	27	0.42188	1	69	5	75	0.75	33	193	226
4:45 PM 5:45 PM	2		3	5	0.4166667	6	98		104	0.9285714	8		5	13	0.8125		66	4	70	0.875	18	174	192
5:00 PM 6:00 PM	2		7	9	0.5625	5	104		109	0.8257576	8		5	13	0.8125		67	6	73	0.9125	22	182	204
5:15 PM 6:15 PM	1		9	10	0.625	7	114		121	0.8642857	8		5	13	0.8125		71	5	76	0.95	23	197	220
5:30 PM 6:30 PM	1		9	10	0.625	7	113		120	0.8571429	10		4	14	0.7		78	3	81	0.92045	24	201	225
5:45 PM 6:45 PM	2		8	10	0.625	8	120	1	129	0.9214286	10		2	12	0.6		72	4	76	0.86364	22	205	227
6:00 PM - 7:00 PM	4		4	8	0.5	6	89	1	96	0.6857143	7		2	9	0.45	3	84	5	92	0.65714	17	188	205

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & St. Edwards Pl Lot P Driveway
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Ziko
INPUTED BY: Jose

SOUTHBOUND ROAD: St. Edwards Pl Lot P Driveway
NORTHBOUND ROAD: St. Edwards Pl Lot P Driveway
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound St. Edwards Pl Lot P Driveway				Westbound University Drive				Northbound St. Edwards Pl Lot P Driveway				Eastbound University Drive				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	0	0		0	0	0				
6:15 AM - 6:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 AM - 6:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 AM - 7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:00 AM - 7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:15 AM - 7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:30 AM - 7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:45 AM - 8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:00 AM - 8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:15 AM - 8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:30 AM - 8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:45 AM - 9:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:00 AM - 9:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:15 AM - 9:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:30 AM - 9:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:45 AM - 10:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:00 AM - 10:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:15 AM - 10:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:30 AM - 10:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:45 AM - 11:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:00 AM - 11:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:15 AM - 11:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:30 AM - 11:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:45 AM - 12:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:00 PM - 12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:15 PM - 12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:30 PM - 12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:45 PM - 1:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:00 PM - 1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:15 PM - 1:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:30 PM - 1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:45 PM - 2:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:00 PM - 2:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:15 PM - 2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:30 PM - 2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:45 PM - 3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:00 PM - 3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:15 PM - 3:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:30 PM - 3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:45 PM - 4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:00 PM - 4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:15 PM - 4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:30 PM - 4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:45 PM - 5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:00 PM - 5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:15 PM - 5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:30 PM - 5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:45 PM - 6:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:00 PM - 6:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:15 PM - 6:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 PM - 6:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 PM - 7:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Volumes																			
6:00 AM - 7:00 AM																			
6:15 AM - 7:15 AM																			
6:30 AM - 7:30 AM																			
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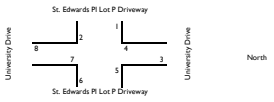
5:30 PM - 6:30 PM																			
5:45 PM - 6:45 PM																			
6:00 PM - 7:00 PM																			

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W + A JOB NO: 7379
INTERSECTION: University Drive & St. Edwards Pl Lot P Driveway
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Zilko
INPUTED BY: Jose



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	0	0	0					
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0					
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0					
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0					
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0					
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0					
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0					
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0					
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0					
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0					
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0					
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0					
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0					
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0					
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0					
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0					
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0					
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0					
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0					
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0					
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0					
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0					
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0					
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0					
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0					
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0					
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0					
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0					
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0					
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0					
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0					
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0					
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0					
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0					
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0					
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0					
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0					
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0					
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0					
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0					
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0					
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0					
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0					
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0					
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0					
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0					
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0					
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0					
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0					
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0					
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0					
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0					
Total	0	0	0	0	0	0	0	0					
One Hour Volumes													
6:00 AM - 7:00 AM													
6:15 AM - 7:15 AM													
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5:15 PM - 6:15 PM													
5:30 PM - 6:30 PM													
5:45 PM - 6:45 PM													
6:00 PM - 7:00 PM													

McLean, Virginia

Turning Movement Count - Total Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & St Johns Pl Lot O Driveway
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Muris
INPUTED BY: Jose

SOUTHBOUND ROAD: St Johns Pl Lot O Driveway
NORTHBOUND ROAD: St Johns Pl Lot O Driveway
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound St Johns Pl Lot O Driveway					Westbound University Drive					Northbound St Johns Pl Lot O Driveway					Eastbound University Drive					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
15 Minute Volumes																							
6:00 AM - 6:15 AM			1	1			2	1	3								11		11		1	14	15
6:15 AM - 6:30 AM			1	1			6	4	10		1		1				17		17		2	27	29
6:30 AM - 6:45 AM			1	1			10	5	15							1	17		18		1	33	34
6:45 AM - 7:00 AM							12	1	13								21		21			34	34
7:00 AM - 7:15 AM			1	1			13	3	16								21		21		1	37	38
7:15 AM - 7:30 AM	1		1	2		1	25	1	27							2	26	1	29		2	56	58
7:30 AM - 7:45 AM			1	1			12		12								58		58		1	70	71
7:45 AM - 8:00 AM						1	22	1	24		2		2				40		40		2	64	66
8:00 AM - 8:15 AM			2	2			20	3	23		1		1			1	24		25		3	48	51
8:15 AM - 8:30 AM							12	1	13		2	1	3				22		22		3	35	38
8:30 AM - 8:45 AM			2	2			23	6	29		4		4			2	21		23		6	52	58
8:45 AM - 9:00 AM							19	7	26		3		3			2	37		39		3	65	68
9:00 AM - 9:15 AM	7			7			24	3	27			1	1			2	36	2	40		8	67	75
9:15 AM - 9:30 AM	1		2	3		2	13	7	22		1		1				28		28		4	50	54
9:30 AM - 9:45 AM			1	1			15	2	17		1		1			1	16		17		2	34	36
9:45 AM - 10:00 AM							14	2	16		2	1	3				16		16		3	32	35
10:00 AM - 10:15 AM							18	8	26							2	17	1	20			46	46
10:15 AM - 10:30 AM			1	1		1	28	4	33							1	23	1	25		1	58	59
10:30 AM - 10:45 AM	1		1	2			12	5	17		6		6				15		15		8	32	40
10:45 AM - 11:00 AM	1		1	2			18	4	22								19	1	20		2	42	44
11:00 AM 11:15 AM							9	4	13		2		2			1	18		19		2	32	34
11:15 AM 11:30 AM			1	1			11	2	13		2		2				8		8		3	21	24
11:30 AM 11:45 AM			1	1			15	5	20		2		2			1	14	1	16		3	36	39
11:45 AM 12:00 PM	1		1	2		1	9	7	17		2		2				25		25		4	42	46
12:00 PM 12:15 PM	2		1	3		1	14	3	18		3	1	4				22		22		7	40	47
12:15 PM 12:30 PM			1	1		1	20	2	23		5		5			1	21		22		6	45	51
12:30 PM 12:45 PM							11	3	14		2		2			1	22		23		2	37	39
12:45 PM 1:00 PM	1		1	2			20	2	22		4	1	5				19		19		7	41	48
1:00 PM 1:15 PM			2	2		1	25	2	28		1		1			2	25		27		3	55	58
1:15 PM 1:30 PM							17	9	26		5		5				19		19		5	45	50
1:30 PM 1:45 PM	1			1			18	2	20		4	1	5				18		18		6	38	44
1:45 PM 2:00 PM			1	1			12	3	15		1		1				23		23		2	38	40
2:00 PM 2:15 PM			2	2			22	2	24		3	1	4				24		24		6	48	54
2:15 PM 2:30 PM						2	22	6	30		1		1				19		19		1	49	50
2:30 PM 2:45 PM	1		1	2			20	3	23		5		5				28	1	29		7	52	59
2:45 PM 3:00 PM			1	1			15	1	16		3	5	8			1	41	1	43		9	59	68
3:00 PM 3:15 PM			1	1			20	1	21		6		6				24		24		7	45	52
3:15 PM 3:30 PM			1	1		4	32	1	37		3		3				29		29		4	66	70
3:30 PM 3:45 PM							36	5	41								18		18			59	59
3:45 PM 4:00 PM	4		2	6			34	5	39		3		3				9		9		9	48	57
4:00 PM 4:15 PM	5		1	6			30	3	33		6		6				38	2	40		12	73	85
4:15 PM 4:30 PM			1	1			34	1	35		7		7				44		44		8	79	87
4:30 PM 4:45 PM	1			1		1	39	2	42		2	1	3			1	33	1	35		4	77	81
4:45 PM 5:00 PM			1	1			26	1	27		3		3				20		20		4	47	51
5:00 PM 5:15 PM							27	1	28		5	1	6				22		22		6	50	56
5:15 PM 5:30 PM	1		2	3			28	5	33		2	1	3				21		21		6	54	60
5:30 PM 5:45 PM							27	1	28		6		6				26		26		6	54	60
5:45 PM 6:00 PM	1		4	5		2	31		33		8		8				26		26		13	59	72
6:00 PM 6:15 PM						1	37	1	39		4	1	5			1	28		29		5	68	73
6:15 PM 6:30 PM	1			1			28	2	30		5	1	6				32		32		7	62	69
6:30 PM 6:45 PM	2		1	3			27	2	29		5	1	6				16	1	17		9	46	55
6:45 PM 7:00 PM	2			2												1	30		31		2	31	33
Total	34	0	43	77		19	1034	155	1208		133	0	18	151		24	1247	13	1284		228	2492	2720
One Hour Volumes																							
6:00 AM - 7:00 AM			3	3	0.75		30	11	41	0.683	1		1	0.25		1	66		67	0.798	4	108	112
6:15 AM - 7:15 AM			3	3	0.75		41	13	54	0.844	1		1	0.25		1	76		77	0.917	4	131	135
6:30 AM - 7:30 AM	1		3	4	0.5	1	60	10	71	0.657						3	85	1	89	0.767	4	160	164
6:45 AM - 7:45 AM	1		3	4	0.5	1	62	5	68	0.63						2	126	1	129	0.556	4	197	201
7:00 AM - 8:00 AM	1		3	4	0.5	2	72	5	79	0.731	2		2	0.25		2	145	1	148	0.638	6	227	233
7:15 AM - 8:15 AM	1		4	5	0.625	2	79	5	86	0.796	3		3	0.375		3	148	1	152	0.655	8	238	246
7:30 AM - 8:30 AM			3	3	0.375	1	66	5	72	0.75	5	1	6	0.5		1	144		145	0.625	9	217	226
7:45 AM - 8:45 AM			4	4	0.5	1	77	11	89	0.767	9	1	10	0.625		3	107		110	0.688	14	199	213
8:00 AM - 9:00 AM			**4**	**4**	**0.5**		**74**	**17**	**91**	**0.784**	**10**	**1**	**11**	**0.688**		**5**	**104**		**109**	**0.699**	**15**	**200**	**215**
8:15 AM - 9:15 AM	7		2	9	0.321		78	17	95	0.819	9	2	11	0.688		6	116	2	124	0.775	20	219	239
8:30 AM - 9:30 AM	8		4	12	0.429	2	79	23	104	0.897	8	1	9	0.563		6	122	2	130	0.813	21	234	255
8:45 AM - 9:45 AM	8		3	11	0.393	2	71	19	92	0.852	5	1	6	0.5		5	117	2	124	0.775	17	216	233
9:00 AM 10:00 AM	8		3	11	0.393	2	66	14	82	0.759	4	2	6	0.5		3	96	2	101	0.631	17	183	200
9:15 AM 10:15 AM	1		3	4	0.333	2	60	19	81	0.779	4	1	5	0.417		3	77	1	81	0.723	9	162	171
9:30 AM 10:30 AM			2	2	0.5	1	75	16	92	0.697	3	1	4	0.333		4	72	2	78	0.78	6	170	176
9:45 AM 10:45 AM	1		2	3	0.375	1	72	19	92	0.697	8	1	9	0.375		3	71	2	76	0.76	12	168	180
10:00 AM 11:00 AM	2		3	5	0.625	1	76	21	98	0.742	6		6	0.25		3	74	3	80	0.8	11	178	189
10:15 AM 11:15 AM	2		3	5	0.625	1	67	17	85	0.644	8		8	0.333		2	75	2	79	0.79	13	164	177
10:30 AM 11:30 AM	2		3	5	0.625		50	15	65	0.739	10		10	0.417		1	60	1	62	0.775	15	127	142
10:45 AM 11:45 AM	1		3	4	0.5		53	15	68	0.773	6		6	0.75		2	59	2	63	0.788	10	131	141
11:00 AM 12:00 PM	1		3	4	0.5	1	44	18	63	0.788	8		8	1		2	65	1	68	0.68	12	131	143
11:15 AM 12:15 PM	3		4	7	0.583	2	49	17	68	0.85	9	1	10	0.625		1	69	1	71	0.71	17	139	156
11:30 AM 12:30 PM	3		4	7	0.583	3	58	17	78	0.848	12	1	13	0.65		2	82	1	85	0.85	20	163	183
11:45 AM 12:45 PM	3		3	6	0.5	3	54	15	72	0.783	12	1	13	0.65		2	90		92	0.92	19	164	183
12:00 PM 1:00 PM	3		3	6	0.5	2	65	10	77	0.837	14	2	16	0.8		2	84		86	0.935	22	163	185
12:15 PM 1:15 PM	1		4	5	0.625	2	76	9	87	0.777	12	1	13	0.65		4	87		91	0.843	18	178	196
12:30 PM 1:30 PM	1		3	4	0.5	1	73	16	90	0.804	12	1	13	0.65		3	85		88	0.815	17	178	195
12:45 PM 1:45 PM	2		3	5	0.625	1	80	15	96	0.857	14	2	16	0.8		2	81		83	0.769	21	179	200
1:00 PM 2:00 PM	1		3	4	0.5	1	72	16	89	0.795	11	1	12	0.6		2	85		87	0.806	16	176	192
1:15 PM 2:15 PM	1		3	4	0.5		69	16	85	0.817	13	2	15	0.75			84		84	0.875	19	169	188
1:30 PM 2:30 PM	1		3	4	0.5	2	74	13	89	0.742	9	2	11	0.55			84		84	0.875	15	173	188
1:45 PM 2:45 PM	1		4	5	0.625	2	76	14	92	0.767	10	1	11	0.55			94	1	95	0.819	16	187	203
2:00 PM 3:00 PM	1		4	5	0.625	2	79	12	93	0.775	12	6	18	0.563		1	112	2	115	0.669	23	208	231
2:15 PM 3:15 PM	1		3	4	0.5	2	77	11	90	0.75	15	5	20	0.625		1	112	2	115	0.669	24	205	229
2:30 PM 3:30 PM	1		4	5	0.625	4	87	6	97	0.655	17	5	22	0.688		1	122	2	125	0.727	27	222	249
2:45 PM 3:45 PM			3	3	0.75	4	103	8	115	0.701	12	5	17	0.531		1	112	1	114	0.663	20	229	249
3:00 PM 4:00 PM	4		4	8	0.333	4	122	12	138	0.841	12		12	0.5			80		80	0.69	20	218	238
3:15 PM 4:15 PM	9		4	13	0.542	4	132	14	150	0.915	12		12	0.5			94	2	96	0.6	25	246	271
3:30 PM 4:30 PM	9		4	13	0.542		134	14	148	0.902	16		16	0.571			109	2	111	0.631	29	259	288
3:45 PM 4:45 PM	10		4	14	0.583	1	137	11	149	0.887	18	1	19	0.679		1	124	3	128	0.727	33	277	310
4:00 PM 5:00 PM	**6**		**3**	**9**	**0.375**	**1**	**129**	**7**	**137**	**0.815**	**18**	**1**	**19**	**0.679**		**1**	**135**	**3**	**139**	**0.79**	**28**	**276**	**304**
4:15 PM 5:15 PM	1		2	3	0.75	1	126	5	132	0.786	17	2	19	0.679		1	119	1	121	0.688	22	253	275
4:30 PM 5:30 PM	2		3	5	0.417	1	120	9	130	0.774	12	3	15	0.625		1	96	1	98	0.7	20	228	248
4:45 PM 5:45 PM	1		3	4	0.333		108	8	116	0.879	16	2	18	0.75			89		89	0.856	22	205	227
5:00 PM 6:00 PM	2		6	8	0.4	2	113	7	122	0.924	21	2	23	0.719			95		95	0.913	31	217	248
5:15 PM 6:15 PM	2		6	8	0.4	3	123	7	133	0.853	20	2	22	0.688		1	101		102	0.879	30	235	265
5:30 PM 6:30 PM	2		4	6	0.3	3	123	4	130	0.833	23	2	25	0.781		1	112		113	0.883	31	243	274
5:45 PM 6:45 PM	4		5	9	0.45	3	123	5	131	0.84	22	3	25	0.781		1	102	1	104	0.813	34	235	269
6:00 PM - 7:00 PM	5		1	6	0.5	1	92	5	98	0.628	14	3	17	0.708		2	106	1	109	0.852	23	207	230

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & St Johns Pl Lot O Drive
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Muris
INPUTED BY: Jose

SOUTHBOUND ROAD: St Johns Pl Lot O Driveway
NORTHBOUND ROAD: St Johns Pl Lot O Driveway
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound St Johns Pl Lot O Driveway				Westbound University Drive				Northbound St Johns Pl Lot O Driveway				Eastbound University Drive				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	0	0		0	0	0				
6:15 AM - 6:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 AM - 6:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 AM - 7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:00 AM - 7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:15 AM - 7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:30 AM - 7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:45 AM - 8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:00 AM - 8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:15 AM - 8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:30 AM - 8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:45 AM - 9:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:00 AM - 9:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:15 AM - 9:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:30 AM - 9:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:45 AM - 10:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:00 AM - 10:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:15 AM - 10:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:30 AM - 10:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:45 AM - 11:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:00 AM - 11:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:15 AM - 11:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:30 AM - 11:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:45 AM - 12:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:00 PM - 12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:15 PM - 12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:30 PM - 12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:45 PM - 1:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:00 PM - 1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:15 PM - 1:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:30 PM - 1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:45 PM - 2:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:00 PM - 2:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:15 PM - 2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:30 PM - 2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:45 PM - 3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:00 PM - 3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:15 PM - 3:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:30 PM - 3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:45 PM - 4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:00 PM - 4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:15 PM - 4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:30 PM - 4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:45 PM - 5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:00 PM - 5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:15 PM - 5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:30 PM - 5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:45 PM - 6:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:00 PM - 6:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:15 PM - 6:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 PM - 6:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 PM - 7:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Volumes																			
6:00 AM - 7:00 AM																			
6:15 AM - 7:15 AM																			
6:30 AM - 7:30 AM																			
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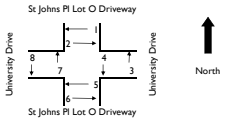
5:45 PM - 6:45 PM																			
6:00 PM - 7:00 PM																			

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W + A JOB NO: 7379
INTERSECTION: University Drive & St Johns Pl Lot O Drivewa
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Muris
INPUTED BY: Jose



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	0	0	0					
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0					
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0					
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0					
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0					
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0					
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0					
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0					
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0					
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0					
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0					
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0					
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	0					
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	0					
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	0					
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	0					
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	0					
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	0					
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	0					
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	0					
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	0					
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	0					
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	0					
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	0					
12:00 PM - 12:15 PM	0	0	0	0	0	0	0	0					
12:15 PM - 12:30 PM	0	0	0	0	0	0	0	0					
12:30 PM - 12:45 PM	0	0	0	0	0	0	0	0					
12:45 PM - 1:00 PM	0	0	0	0	0	0	0	0					
1:00 PM - 1:15 PM	0	0	0	0	0	0	0	0					
1:15 PM - 1:30 PM	0	0	0	0	0	0	0	0					
1:30 PM - 1:45 PM	0	0	0	0	0	0	0	0					
1:45 PM - 2:00 PM	0	0	0	0	0	0	0	0					
2:00 PM - 2:15 PM	0	0	0	0	0	0	0	0					
2:15 PM - 2:30 PM	0	0	0	0	0	0	0	0					
2:30 PM - 2:45 PM	0	0	0	0	0	0	0	0					
2:45 PM - 3:00 PM	0	0	0	0	0	0	0	0					
3:00 PM - 3:15 PM	0	0	0	0	0	0	0	0					
3:15 PM - 3:30 PM	0	0	0	0	0	0	0	0					
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	0					
3:45 PM - 4:00 PM	0	0	0	0	0	0	0	0					
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0					
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0					
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0					
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0					
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0					
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0					
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0					
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0					
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0					
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0					
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0					
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0					
Total	0	0	0	0	0	0	0	0					
One Hour Volumes													
6:00 AM - 7:00 AM													
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5:15 PM - 6:15 PM													
5:30 PM - 6:30 PM													
5:45 PM - 6:45 PM													
6:00 PM - 7:00 PM													

McLean, Virginia

Turning Movement Count - Total Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & St Johns Pl Lot M Driveway
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Jose
INPUTED BY: Jose

SOUTHBOUND ROAD: St Johns Pl Lot M Driveway
NORTHBOUND ROAD: St Johns Pl Lot M Driveway
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound St Johns Pl Lot M Driveway					Westbound University Drive					Northbound St Johns Pl Lot M Driveway					Eastbound University Drive					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
15 Minute Volumes																							
6:00 AM - 6:15 AM							4	2	6		1			1		1	11		12		1	18	19
6:15 AM - 6:30 AM							8	18	26		2		1	3			18		18		3	44	47
6:30 AM - 6:45 AM							14	17	31								18		18			49	49
6:45 AM - 7:00 AM	1			1		3	10	5	18		1			1			19		19		2	37	39
7:00 AM - 7:15 AM	1		1	2			16	13	29		2			2			23		23		4	52	56
7:15 AM - 7:30 AM	1		1	2			27	25	52		3			3			23	1	24		5	76	81
7:30 AM - 7:45 AM			1	1		1	12	7	20		3			3			60		60		4	80	84
7:45 AM - 8:00 AM						2	23	7	32		17			17		1	45		46		17	78	95
8:00 AM - 8:15 AM			3	3		2	24	10	36		12			12			25		25		15	61	76
8:15 AM - 8:30 AM			1	1		1	15	19	35		15			15		1	22		23		16	58	74
8:30 AM - 8:45 AM			3	3			30	45	75		14			14		3	19		22		17	97	114
8:45 AM - 9:00 AM			1	1		1	26	29	56		7			7			42		42		8	98	106
9:00 AM - 9:15 AM	6		3	9		2	27	20	49		6			6			34	3	37		15	86	101
9:15 AM - 9:30 AM	2		2	4		1	25	12	38		7			7		1	29	1	31		11	69	80
9:30 AM - 9:45 AM			1	1			18	15	33		3			3			20		20		4	53	57
9:45 AM - 10:00 AM			1	1		1	15	16	32		3			3		1	16		17		4	49	53
10:00 AM - 10:15 AM							29	22	51		9			9		1	20	1	22		9	73	82
10:15 AM - 10:30 AM	1		1	2		1	34	22	57		11		1	12			21	1	22		14	79	93
10:30 AM - 10:45 AM			1	1			18	13	31		4			4			21		21		5	52	57
10:45 AM - 11:00 AM						1	22	7	30		9		1	10		2	17	1	20		10	50	60
11:00 AM - 11:15 AM			2	2		2	14	7	23		4			4		1	20		21		6	44	50
11:15 AM - 11:30 AM			1	1		2	13	13	28		6			6		1	10		11		7	39	46
11:30 AM - 11:45 AM						1	20	13	34		8			8		1	15	1	17		8	51	59
11:45 AM - 12:00 PM			1	1		1	18	22	41		8			8		1	26		27		9	68	77
12:00 PM - 12:15 PM	1			1		2	20	13	35		12			12		1	25		26		13	61	74
12:15 PM - 12:30 PM							24	14	38		4			4		1	27		28		4	66	70
12:30 PM - 12:45 PM			1	1		1	14	14	29		11			11		1	22		23		12	52	64
12:45 PM - 1:00 PM			2	2		4	23	17	44		5			5			20	1	21		7	65	72
1:00 PM - 1:15 PM						2	25	21	48		7		1	8			29		29		8	77	85
1:15 PM - 1:30 PM	1			1		1	27	15	43		16			16		1	21	1	23		17	66	83
1:30 PM - 1:45 PM			1	1			20	10	30		20			20			24		24		21	54	75
1:45 PM - 2:00 PM						1	15	11	27		7			7			26		26		7	53	60
2:00 PM - 2:15 PM			1	1		1	25	10	36		3		1	4			28		28		5	64	69
2:15 PM - 2:30 PM						1	30	17	48		17			17			21		21		17	69	86
2:30 PM - 2:45 PM						1	25	20	46		21			21			34		34		21	80	101
2:45 PM - 3:00 PM			3	3			17	18	35		20			20			43	1	44		23	79	102
3:00 PM - 3:15 PM			1	1			21	18	39		31			31			32		32		32	71	103
3:15 PM - 3:30 PM		1		1		3	38	11	52		7		1	8			31	2	33		9	85	94
3:30 PM - 3:45 PM	1			1			42	9	51		10			10		1	19		20		11	71	82
3:45 PM - 4:00 PM						2	39	13	54		16			16		1	18	1	20		16	74	90
4:00 PM - 4:15 PM	2			2		1	34	17	52		26			26			50	1	51		28	103	131
4:15 PM - 4:30 PM						1	35	14	50		25		1	26			50	2	52		26	102	128
4:30 PM - 4:45 PM	2		1	3		3	39	12	54		25			25			43		43		28	97	125
4:45 PM - 5:00 PM							30	14	44		10			10		1	21	1	23		10	67	77
5:00 PM - 5:15 PM			1	1		1	28	8	37		12			12			28		28		13	65	78
5:15 PM - 5:30 PM						1	34	8	43		13			13		2	25	2	29		13	72	85
5:30 PM - 5:45 PM			2	2			26	5	31		17		2	19			31		31		21	62	83
5:45 PM - 6:00 PM							36	6	42		17			17			37	1	38		17	80	97
6:00 PM - 6:15 PM							41	10	51		17			17		1	31		32		17	83	100
6:15 PM - 6:30 PM			1	1		2	28	15	45		9	1	2	12		1	33	1	35		13	80	93
6:30 PM - 6:45 PM	1		2	3		3	32	7	42		17		1	18		3	17	1	21		21	63	84
6:45 PM - 7:00 PM																	38		38			38	38
Total	20	1	40	61		53	1230	726	2009		550	1	12	563		29	1398	24	1451		624	3460	4084
One Hour Volumes																							
6:00 AM - 7:00 AM	1			1	0.25	3	36	42	81	0.6532258	4		1	5	0.41667	1	66		67	0.8816	6	148	154
6:15 AM - 7:15 AM	2		1	3	0.375	3	48	53	104	0.8387097	5		1	6	0.5		78		78	0.8478	9	182	191
6:30 AM - 7:30 AM	3		2	5	0.625	3	67	60	130	0.625	6			6	0.5		83	1	84	0.875	11	214	225
6:45 AM - 7:45 AM	3		3	6	0.75	4	65	50	119	0.5721154	9			9	0.75		125	1	126	0.525	15	245	260
7:00 AM - 8:00 AM	2		3	5	0.625	3	78	52	133	0.6394231	25			25	0.36765	1	151	1	153	0.6375	30	286	316
7:15 AM - 8:15 AM	1		5	6	0.5	5	86	49	140	0.6730769	35			35	0.51471	1	153	1	155	0.6458	41	295	336
7:30 AM - 8:30 AM			5	5	0.4166667	6	74	43	123	0.8541667	47			47	0.69118	2	152		154	0.6417	52	277	329
7:45 AM - 8:45 AM			7	7	0.5833333	5	92	81	178	0.5933333	58			58	0.85294	5	111		116	0.6304	65	294	359
8:00 AM - 9:00 AM			**8**	**8**	**0.666667**	**4**	**95**	**103**	**202**	**0.673333**	**48**			**48**	**0.8**	**4**	**108**		**112**	**0.6667**	**56**	**314**	**370**
8:15 AM - 9:15 AM	6		8	14	0.3888889	4	98	113	215	0.7166667	42			42	0.7	4	117	3	124	0.7381	56	339	395
8:30 AM - 9:30 AM	8		9	17	0.4722222	4	108	106	218	0.7266667	34			34	0.60714	4	124	4	132	0.7857	51	350	401
8:45 AM - 9:45 AM	8		7	15	0.4166667	4	96	76	176	0.7857143	23			23	0.82143	1	125	4	130	0.7738	38	306	344
9:00 AM - 10:00 AM	8		7	15	0.4166667	4	85	63	152	0.7755102	19			19	0.67857	2	99	4	105	0.7095	34	257	291
9:15 AM - 10:15 AM	2		4	6	0.375	2	87	65	154	0.754902	22			22	0.61111	3	85	2	90	0.7258	28	244	272
9:30 AM - 10:30 AM	1		3	4	0.5	2	96	75	173	0.7587719	26		1	27	0.5625	2	77	2	81	0.9205	31	254	285
9:45 AM - 10:45 AM	1		3	4	0.5	2	96	73	171	0.75	27		1	28	0.58333	2	78	2	82	0.9318	32	253	285
10:00 AM - 11:00 AM	1		2	3	0.375	2	103	64	169	0.7412281	33		2	35	0.72917	3	79	3	85	0.9659	38	254	292
10:15 AM - 11:15 AM	1		4	5	0.625	4	88	49	141	0.6184211	28		2	30	0.625	3	79	2	84	0.9545	35	225	260
10:30 AM - 11:30 AM			4	4	0.5	5	67	40	112	0.9032258	23		1	24	0.6	4	68	1	73	0.869	28	185	213
10:45 AM - 11:45 AM			3	3	0.375	6	69	40	115	0.8455882	27		1	28	0.7	5	62	2	69	0.8214	31	184	215
11:00 AM - 12:00 PM			4	4	0.5	6	65	55	126	0.7682927	26			26	0.8125	4	71	1	76	0.7037	30	202	232
11:15 AM - 12:15 PM	1		2	3	0.75	6	71	61	138	0.8414634	34			34	0.70833	4	76	1	81	0.75	37	219	256
11:30 AM - 12:30 PM	1		1	2	0.5	4	82	62	148	0.902439	32			32	0.66667	4	93	1	98	0.875	34	246	280
11:45 AM - 12:45 PM	1		2	3	0.75	4	76	63	143	0.8719512	35			35	0.72917	4	100		104	0.9286	38	247	285
12:00 PM - 1:00 PM	1		3	4	0.5	7	81	58	146	0.8295455	32			32	0.66667	3	94	1	98	0.875	36	244	280
12:15 PM - 1:15 PM			3	3	0.375	7	86	66	159	0.828125	27		1	28	0.63636	2	98	1	101	0.8707	31	260	291
12:30 PM - 1:30 PM	1		3	4	0.5	8	89	67	164	0.8541667	39		1	40	0.625	2	92	2	96	0.8276	44	260	304
12:45 PM - 1:45 PM	1		3	4	0.5	7	95	63	165	0.859375	48		1	49	0.6125	1	94	2	97	0.8362	53	262	315
1:00 PM - 2:00 PM	1		1	2	0.5	4	87	57	148	0.7708333	50		1	51	0.6375	1	100	1	102	0.8793	53	250	303
1:15 PM - 2:15 PM	1		2	3	0.75	3	87	46	136	0.7906977	46		1	47	0.5875	1	99	1	101	0.9018	50	237	287
1:30 PM - 2:30 PM			2	2	0.5	3	90	48	141	0.734375	47		1	48	0.6		99		99	0.8839	50	240	290
1:45 PM - 2:45 PM			1	1	0.25	4	95	58	157	0.8177083	48		1	49	0.58333		109		109	0.8015	50	266	316
2:00 PM - 3:00 PM			4	4	0.3333333	3	97	65	165	0.859375	61		1	62	0.7381		126	1	127	0.7216	66	292	358
2:15 PM - 3:15 PM			4	4	0.3333333	2	93	73	168	0.875	89			89	0.71774		130	1	131	0.7443	93	299	392
2:30 PM - 3:30 PM		1	4	5	0.4166667	4	101	67	172	0.8269231	79		1	80	0.64516		140	3	143	0.8125	85	315	400
2:45 PM - 3:45 PM	1	1	4	6	0.5	3	118	56	177	0.8509615	68		1	69	0.55645	1	125	3	129	0.733	75	306	381
3:00 PM - 4:00 PM	1	1	1	3	0.75	5	140	51	196	0.9074074	64		1	65	0.52419	2	100	3	105	0.7955	68	301	369
3:15 PM - 4:15 PM	3	1		4	0.5	6	153	50	209	0.9675926	59		1	60	0.57692	2	118	4	124	0.6078	64	333	397
3:30 PM - 4:30 PM	3			3	0.375	4	150	53	207	0.9583333	77		1	78	0.75	2	137	4	143	0.6875	81	350	431
3:45 PM - 4:45 PM	4		1	5	0.4166667	7	147	56	210	0.9722222	92		1	93	0.89423	1	161	4	166	0.7981	98	376	474
4:00 PM - 5:00 PM	**4**		**1**	**5**	**0.416667**	**5**	**138**	**57**	**200**	**0.925926**	**86**		**1**	**87**	**0.83654**	**1**	**164**	**4**	**169**	**0.8125**	**92**	**369**	**461**
4:15 PM - 5:15 PM	2		2	4	0.3333333	5	132	48	185	0.8564815	72		1	73	0.70192	1	142	3	146	0.7019	77	331	408
4:30 PM - 5:30 PM	2		2	4	0.3333333	5	131	42	178	0.8240741	60			60	0.6	3	117	3	123	0.7151	64	301	365
4:45 PM - 5:45 PM			3	3	0.375	2	118	35	155	0.8806818	52		2	54	0.71053	3	105	3	111	0.8952	57	266	323
5:00 PM - 6:00 PM			3	3	0.375	2	124	27	153	0.8895349	59		2	61	0.80263	2	121	3	126	0.8289	64	279	343
5:15 PM - 6:15 PM			2	2	0.25	1	137	29	167	0.8186275	64		2	66	0.86842	3	124	3	130	0.8553	68	297	365
5:30 PM - 6:30 PM			3	3	0.375	2	131	36	169	0.8284314	60	1	4	65	0.85526	2	132	2	136	0.8947	68	305	373
5:45 PM - 6:45 PM	1		3	4	0.3333333	5	137	38	180	0.8823529	60	1	3	64	0.88889	5	118	3	126	0.8289	68	306	374
6:00 PM - 7:00 PM	1		3	4	0.3333333	5	101	32	138	0.6764706	43	1	3	47	0.65278	5	119	2	126	0.8289	51	264	315

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT:	One University	**DATE:**	11/14/2017	**SOUTHBOUND ROAD:**	St Johns Pl Lot M Driveway
W+A JOB NO:	7379	**DAY:**	Tuesday	**NORTHBOUND ROAD:**	St Johns Pl Lot M Driveway
INTERSECTION:	University Drive & St Johns Pl Lot M Driveway	**WEATHER:**	clear	**WESTBOUND ROAD:**	University Drive
LOCATION:	Fairfax County	**COUNTED BY:**	Jose	**EASTBOUND ROAD:**	University Drive
		INPUTED BY:	Jose		

Time Period	Southbound St Johns Pl Lot M Driveway				Westbound University Drive				Northbound St Johns Pl Lot M Driveway				Eastbound University Drive				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	0	0		0	0	0				
6:15 AM - 6:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 AM - 6:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 AM - 7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:00 AM - 7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:15 AM - 7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:30 AM - 7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:45 AM - 8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:00 AM - 8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:15 AM - 8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:30 AM - 8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:45 AM - 9:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:00 AM - 9:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:15 AM - 9:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:30 AM - 9:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:45 AM - 10:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:00 AM - 10:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:15 AM - 10:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:30 AM - 10:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:45 AM - 11:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:00 AM - 11:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:15 AM - 11:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:30 AM - 11:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:45 AM - 12:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:00 PM - 12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:15 PM - 12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:30 PM - 12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:45 PM - 1:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:00 PM - 1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:15 PM - 1:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:30 PM - 1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:45 PM - 2:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:00 PM - 2:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:15 PM - 2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:30 PM - 2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:45 PM - 3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:00 PM - 3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:15 PM - 3:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:30 PM - 3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:45 PM - 4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:00 PM - 4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:15 PM - 4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:30 PM - 4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:45 PM - 5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:00 PM - 5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:15 PM - 5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:30 PM - 5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:45 PM - 6:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:00 PM - 6:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:15 PM - 6:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 PM - 6:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 PM - 7:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Volumes																			
6:00 AM - 7:00 AM																			
6:15 AM - 7:15 AM																			
6:30 AM - 7:30 AM																			
6:45 AM - 7:45 AM																			
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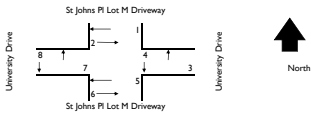
5:15 PM - 6:15 PM																			
5:30 PM - 6:30 PM																			
5:45 PM - 6:45 PM																			
6:00 PM - 7:00 PM																			

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W + A JOB NO: 7379
INTERSECTION: University Drive & St Johns Pl Lot M Driveway
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Jose
INPUTED BY: Jose



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	0	0	0					
6:15 AM	-	6:30 AM	0	0	0	0	0	0	0	0					
6:30 AM	-	6:45 AM	0	0	0	0	0	0	0	0					
6:45 AM	-	7:00 AM	0	0	0	0	0	0	0	0					
7:00 AM	-	7:15 AM	0	0	0	0	0	0	0	0					
7:15 AM	-	7:30 AM	0	0	0	0	0	0	0	0					
7:30 AM	-	7:45 AM	0	0	0	0	0	0	0	0					
7:45 AM	-	8:00 AM	0	0	0	0	0	0	0	0					
8:00 AM	-	8:15 AM	0	0	0	0	0	0	0	0					
8:15 AM	-	8:30 AM	0	0	0	0	0	0	0	0					
8:30 AM	-	8:45 AM	0	0	0	0	0	0	0	0					
8:45 AM	-	9:00 AM	0	0	0	0	0	0	0	0					
9:00 AM	-	9:15 AM	0	0	0	0	0	0	0	0					
9:15 AM	-	9:30 AM	0	0	0	0	0	0	0	0					
9:30 AM	-	9:45 AM	0	0	0	0	0	0	0	0					
9:45 AM	-	10:00 AM	0	0	0	0	0	0	0	0					
10:00 AM	-	10:15 AM	0	0	0	0	0	0	0	0					
10:15 AM	-	10:30 AM	0	0	0	0	0	0	0	0					
10:30 AM	-	10:45 AM	0	0	0	0	0	0	0	0					
10:45 AM	-	11:00 AM	0	0	0	0	0	0	0	0					
11:00 AM	-	11:15 AM	0	0	0	0	0	0	0	0					
11:15 AM	-	11:30 AM	0	0	0	0	0	0	0	0					
11:30 AM	-	11:45 AM	0	0	0	0	0	0	0	0					
11:45 AM	-	12:00 PM	0	0	0	0	0	0	0	0					
12:00 PM	-	12:15 PM	0	0	0	0	0	0	0	0					
12:15 PM	-	12:30 PM	0	0	0	0	0	0	0	0					
12:30 PM	-	12:45 PM	0	0	0	0	0	0	0	0					
12:45 PM	-	1:00 PM	0	0	0	0	0	0	0	0					
1:00 PM	-	1:15 PM	0	0	0	0	0	0	0	0					
1:15 PM	-	1:30 PM	0	0	0	0	0	0	0	0					
1:30 PM	-	1:45 PM	0	0	0	0	0	0	0	0					
1:45 PM	-	2:00 PM	0	0	0	0	0	0	0	0					
2:00 PM	-	2:15 PM	0	0	0	0	0	0	0	0					
2:15 PM	-	2:30 PM	0	0	0	0	0	0	0	0					
2:30 PM	-	2:45 PM	0	0	0	0	0	0	0	0					
2:45 PM	-	3:00 PM	0	0	0	0	0	0	0	0					
3:00 PM	-	3:15 PM	0	0	0	0	0	0	0	0					
3:15 PM	-	3:30 PM	0	0	0	0	0	0	0	0					
3:30 PM	-	3:45 PM	0	0	0	0	0	0	0	0					
3:45 PM	-	4:00 PM	0	0	0	0	0	0	0	0					
4:00 PM	-	4:15 PM	0	0	0	0	0	0	0	0					
4:15 PM	-	4:30 PM	0	0	0	0	0	0	0	0					
4:30 PM	-	4:45 PM	0	0	0	0	0	0	0	0					
4:45 PM	-	5:00 PM	0	0	0	0	0	0	0	0					
5:00 PM	-	5:15 PM	0	0	0	0	0	0	0	0					
5:15 PM	-	5:30 PM	0	0	0	0	0	0	0	0					
5:30 PM	-	5:45 PM	0	0	0	0	0	0	0	0					
5:45 PM	-	6:00 PM	0	0	0	0	0	0	0	0					
6:00 PM	-	6:15 PM	0	0	0	0	0	0	0	0					
6:15 PM	-	6:30 PM	0	0	0	0	0	0	0	0					
6:30 PM	-	6:45 PM	0	0	0	0	0	0	0	0					
6:45 PM	-	7:00 PM	0	0	0	0	0	0	0	0					
Total			0	0	0	0	0	0	0	0					
One Hour Volumes															
6:00 AM	-	7:00 AM													
6:15 AM	-	7:15 AM													
6:30 AM	-	7:30 AM													
6:45 AM	-	7:45 AM													
7:00 AM	-	8:00 AM													
7:15 AM	-	8:15 AM													
7:30 AM	-	8:30 AM													
7:45 AM	-	8:45 AM													
8:00 AM	**-**	**9:00 AM**													
8:15 AM	-	9:15 AM													
8:30 AM	-	9:30 AM													
8:45 AM	-	9:45 AM													
9:00 AM	-	10:00 AM													
9:15 AM	-	10:15 AM													
9:30 AM	-	10:30 AM													
9:45 AM	-	10:45 AM													
10:00 AM	-	11:00 AM													
10:15 AM	-	11:15 AM													
10:30 AM	-	11:30 AM													
10:45 AM	-	11:45 AM													
11:00 AM	-	12:00 PM													
11:15 AM	-	12:15 PM													
11:30 AM	-	12:30 PM													
11:45 AM	-	12:45 PM													
12:00 PM	-	1:00 PM													
12:15 PM	-	1:15 PM													
12:30 PM	-	1:30 PM													
12:45 PM	-	1:45 PM													
1:00 PM	-	2:00 PM													
1:15 PM	-	2:15 PM													
1:30 PM	-	2:30 PM													
1:45 PM	-	2:45 PM													
2:00 PM	-	3:00 PM													
2:15 PM	-	3:15 PM													
2:30 PM	-	3:30 PM													
2:45 PM	-	3:45 PM													
3:00 PM	-	4:00 PM													
3:15 PM	-	4:15 PM													
3:30 PM	-	4:30 PM													
3:45 PM	-	4:45 PM													
4:00 PM	**-**	**5:00 PM**													
4:15 PM	-	5:15 PM													
4:30 PM	-	5:30 PM													
4:45 PM	-	5:45 PM													
5:00 PM	-	6:00 PM													
5:15 PM	-	6:15 PM													
5:30 PM	-	6:30 PM													
5:45 PM	-	6:45 PM													
6:00 PM	-	7:00 PM													

McLean, Virginia

Turning Movement Count - Total Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & University Plaza
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Jose
INPUTED BY: Jose

SOUTHBOUND ROAD: University Plaza
NORTHBOUND ROAD: University Plaza
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period			Southbound University Plaza					Westbound University Drive					Northbound University Plaza					Eastbound University Drive					North & South	East & West	Total
			Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
15 Minute Volumes																									
6:00 AM	-	6:15 AM							5		5								13		13			18	18
6:15 AM	-	6:30 AM						1	30		31								17	2	19			50	50
6:30 AM	-	6:45 AM						3	32		35								18		18			53	53
6:45 AM	-	7:00 AM						5	24		29								22	1	23			52	52
7:00 AM	-	7:15 AM						3	33		36								26		26			62	62
7:15 AM	-	7:30 AM	2			2		1	48		49								27	1	28		2	77	79
7:30 AM	-	7:45 AM	1		1	2			18		18								61		61		2	79	81
7:45 AM	-	8:00 AM						3	35		38								66		66			104	104
8:00 AM	-	8:15 AM	1		3	4		2	35		37								37	1	38		4	75	79
8:15 AM	-	8:30 AM	1			1			30		30								26		26		1	56	57
8:30 AM	-	8:45 AM						1	63		64								18		18			82	82
8:45 AM	-	9:00 AM			2	2			54		54								34		34		2	88	90
9:00 AM	-	9:15 AM	1		3	4		2	46		48								39		39		4	87	91
9:15 AM	-	9:30 AM	2		4	6			32		32								42		42		6	74	80
9:30 AM	-	9:45 AM							35		35								22		22			57	57
9:45 AM	-	10:00 AM							31		31								19		19			50	50
10:00 AM	-	10:15 AM			1	1		1	47		48								26		26		1	74	75
10:15 AM	-	10:30 AM	1			1			53		53								21		21		1	74	75
10:30 AM	-	10:45 AM			1	1			30		30								18	1	19		1	49	50
10:45 AM	-	11:00 AM	2		1	3		3	23		26								18		18		3	44	47
11:00 AM		11:15 AM			2	2		1	20		21								17		17		2	38	40
11:15 AM		11:30 AM							25		25								13	1	14			39	39
11:30 AM		11:45 AM			2	2		2	28		30								22		22		2	52	54
11:45 AM		12:00 PM	1		1	2		1	32		33								27		27		2	60	62
12:00 PM		12:15 PM						1	31		32								35		35			67	67
12:15 PM		12:30 PM			1	1		1	30		31								23	1	24		1	55	56
12:30 PM		12:45 PM	1			1			28		28								33		33		1	61	62
12:45 PM		1:00 PM			2	2		3	44		47								27		27		2	74	76
1:00 PM		1:15 PM			1	1			46		46								27	1	28		1	74	75
1:15 PM		1:30 PM			1	1		2	38		40								29		29		1	69	70
1:30 PM		1:45 PM			2	2		2	23		25								48		48		2	73	75
1:45 PM		2:00 PM						1	25		26								29	1	30			56	56
2:00 PM		2:15 PM						3	33		36								24		24			60	60
2:15 PM		2:30 PM			2	2		2	43		45								41		41		2	86	88
2:30 PM		2:45 PM						3	42		45								46	3	49			94	94
2:45 PM		3:00 PM			2	2		2	31		33								52		52		2	85	87
3:00 PM		3:15 PM			4	4			34		34								48	1	49		4	83	87
3:15 PM		3:30 PM	1		8	9		3	46		49								39		39		9	88	97
3:30 PM		3:45 PM			1	1		2	37		39								19	1	20		1	59	60
3:45 PM		4:00 PM	1		3	4		2	47		49								29		29		4	78	82
4:00 PM		4:15 PM			1	1		1	53		54								64		64		1	118	119
4:15 PM		4:30 PM			2	2		1	47		48								50		50		2	98	100
4:30 PM		4:45 PM							43		43								61		61			104	104
4:45 PM		5:00 PM							38		38								29		29			67	67
5:00 PM		5:15 PM			1	1		1	43		44								36		36		1	80	81
5:15 PM		5:30 PM			4	4		5	46		51								31		31		4	82	86
5:30 PM		5:45 PM			2	2			32		32								37		37		2	69	71
5:45 PM		6:00 PM			2	2		2	35		37								46		46		2	83	85
6:00 PM		6:15 PM			1	1		3	45		48								51		51		1	99	100
6:15 PM		6:30 PM	2		3	5		1	47		48								49	3	52		5	100	105
6:30 PM		6:45 PM	1			1			35		35								27		27		1	62	63
6:45 PM		7:00 PM	2			2													55	2	57		2	57	59
Total			20	0	64	84		70	1851	0	1921		0	0	0	0		0	1734	20	1754		84	3675	3759
One Hour Volumes																									
6:00 AM	-	7:00 AM						9	91		100	0.714285714							70	3	73	0.7935		173	173
6:15 AM	-	7:15 AM						12	119		131	0.909722222							83	3	86	0.8269		217	217
6:30 AM	-	7:30 AM	2			2	0.25	12	137		149	0.760204082							93	2	95	0.8482	2	244	246
6:45 AM	-	7:45 AM	3		1	4	0.5	9	123		132	0.673469388							136	2	138	0.5656	4	270	274
7:00 AM	-	8:00 AM	3		1	4	0.5	7	134		141	0.719387755							180	1	181	0.6856	4	322	326
7:15 AM	-	8:15 AM	4		4	8	0.5	6	136		142	0.724489796							191	2	193	0.7311	8	335	343
7:30 AM	-	8:30 AM	3		4	7	0.4375	5	118		123	0.809210526							190	1	191	0.7235	7	314	321
7:45 AM	-	8:45 AM	2		3	5	0.3125	6	163		169	0.66015625							147	1	148	0.5606	5	317	322
8:00 AM	**-**	**9:00 AM**	**2**		**5**	**7**	**0.4375**	**3**	**182**		**185**	**0.72265625**							**115**	**1**	**116**	**0.763**	**7**	**301**	**308**
8:15 AM	-	9:15 AM	2		5	7	0.4375	3	193		196	0.765625							117		117	0.75	7	313	320
8:30 AM	-	9:30 AM	3		9	12	0.5	3	195		198	0.7734375							133		133	0.7917	12	331	343
8:45 AM	-	9:45 AM	3		9	12	0.5	2	167		169	0.782407407							137		137	0.8155	12	306	318
9:00 AM		10:00 AM	3		7	10	0.416666667	2	144		146	0.760416667							122		122	0.7262	10	268	278
9:15 AM		10:15 AM	2		5	7	0.291666667	1	145		146	0.760416667							109		109	0.6488	7	255	262
9:30 AM		10:30 AM	1		1	2	0.5	1	166		167	0.787735849							88		88	0.8462	2	255	257
9:45 AM		10:45 AM	1		2	3	0.75	1	161		162	0.764150943							84	1	85	0.8173	3	247	250
10:00 AM		11:00 AM	3		3	6	0.5	4	153		157	0.740566038							83	1	84	0.8077	6	241	247
10:15 AM		11:15 AM	3		4	7	0.583333333	4	126		130	0.613207547							74	1	75	0.8929	7	205	212
10:30 AM		11:30 AM	2		4	6	0.5	4	98		102	0.85							66	2	68	0.8947	6	170	176
10:45 AM		11:45 AM	2		5	7	0.583333333	6	96		102	0.85							70	1	71	0.8068	7	173	180
11:00 AM		12:00 PM	1		5	6	0.75	4	105		109	0.825757576							79	1	80	0.7407	6	189	195
11:15 AM		12:15 PM	1		3	4	0.5	4	116		120	0.909090909							97	1	98	0.7	4	218	222
11:30 AM		12:30 PM	1		4	5	0.625	5	121		126	0.954545455							107	1	108	0.7714	5	234	239
11:45 AM		12:45 PM	2		2	4	0.5	3	121		124	0.939393939							118	1	119	0.85	4	243	247
12:00 PM		1:00 PM	1		3	4	0.5	5	133		138	0.734042553							118	1	119	0.85	4	257	261
12:15 PM		1:15 PM	1		4	5	0.625	4	148		152	0.808510638							110	2	112	0.8485	5	264	269
12:30 PM		1:30 PM	1		4	5	0.625	5	156		161	0.856382979							116	1	117	0.8864	5	278	283
12:45 PM		1:45 PM			6	6	0.75	7	151		158	0.840425532							131	1	132	0.6875	6	290	296
1:00 PM		2:00 PM			4	4	0.5	5	132		137	0.744565217							133	2	135	0.7031	4	272	276
1:15 PM		2:15 PM			3	3	0.375	8	119		127	0.79375							130	1	131	0.6823	3	258	261
1:30 PM		2:30 PM			4	4	0.5	8	124		132	0.733333333							142	1	143	0.7448	4	275	279
1:45 PM		2:45 PM			2	2	0.25	9	143		152	0.844444444							140	4	144	0.7347	2	296	298
2:00 PM		3:00 PM			4	4	0.5	10	149		159	0.883333333							163	3	166	0.7981	4	325	329
2:15 PM		3:15 PM			8	8	0.5	7	150		157	0.872222222							187	4	191	0.9183	8	348	356
2:30 PM		3:30 PM	1		14	15	0.416666667	8	153		161	0.821428571							185	4	189	0.9087	15	350	365
2:45 PM		3:45 PM	1		15	16	0.444444444	7	148		155	0.790816327							158	2	160	0.7692	16	315	331
3:00 PM		4:00 PM	2		16	18	0.5	7	164		171	0.87244898							135	2	137	0.699	18	308	326
3:15 PM		4:15 PM	2		13	15	0.416666667	8	183		191	0.884259259							151	1	152	0.5938	15	343	358
3:30 PM		4:30 PM	1		7	8	0.5	6	184		190	0.87962963							162	1	163	0.6367	8	353	361
3:45 PM		4:45 PM	1		6	7	0.4375	4	190		194	0.898148148							204		204	0.7969	7	398	405
4:00 PM		**5:00 PM**			**3**	**3**	**0.375**	**2**	**181**		**183**	**0.847222222**							**204**		**204**	**0.797**	**3**	**387**	**390**
4:15 PM		5:15 PM			3	3	0.375	2	171		173	0.901041667							176		176	0.7213	3	349	352
4:30 PM		5:30 PM			5	5	0.3125	6	170		176	0.862745098							157		157	0.6434	5	333	338
4:45 PM		5:45 PM			7	7	0.4375	6	159		165	0.808823529							133		133	0.8986	7	298	305
5:00 PM		6:00 PM			9	9	0.5625	8	156		164	0.803921569							150		150	0.8152	9	314	323
5:15 PM		6:15 PM			9	9	0.5625	10	158		168	0.823529412							165		165	0.8088	9	333	342
5:30 PM		6:30 PM	2		8	10	0.5	6	159		165	0.859375							183	3	186	0.8942	10	351	361
5:45 PM		6:45 PM	3		6	9	0.45	6	162		168	0.875							173	3	176	0.8462	9	344	353
6:00 PM	-	7:00 PM	5		4	9	0.45	4	127		131	0.682291667							182	5	187	0.8202	9	318	327

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & University Plaza
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Jose
INPUTED BY: Jose

SOUTHBOUND ROAD: University Plaza
NORTHBOUND ROAD: University Plaza
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

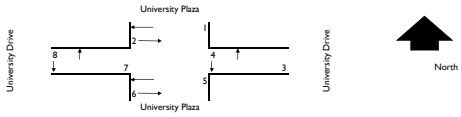
Time Period	Southbound University Plaza				Westbound University Drive				Northbound University Plaza				Eastbound University Drive				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:15 AM - 6:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:30 AM - 6:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 AM - 7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:00 AM - 7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
7:15 AM - 7:30 AM	0	0	0		0	0	0		0	0	0		0	2	0	2		2	2
7:30 AM - 7:45 AM	0	0	0		0	2	0	2	0	0	0		0	0	0			2	2
7:45 AM - 8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:00 AM - 8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:15 AM - 8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
8:30 AM - 8:45 AM	0	0	0		0	0	0		0	0	0		0	1	0	1		1	1
8:45 AM - 9:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:00 AM - 9:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:15 AM - 9:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:30 AM - 9:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
9:45 AM - 10:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:00 AM - 10:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:15 AM - 10:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:30 AM - 10:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
10:45 AM - 11:00 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:00 AM - 11:15 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:15 AM - 11:30 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:30 AM - 11:45 AM	0	0	0		0	0	0		0	0	0		0	0	0				
11:45 AM - 12:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:00 PM - 12:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:15 PM - 12:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:30 PM - 12:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
12:45 PM - 1:00 PM	0	0	0		0	0	0		0	0	0		0	1	0	1		1	1
1:00 PM - 1:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:15 PM - 1:30 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
1:30 PM - 1:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
1:45 PM - 2:00 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
2:00 PM - 2:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:15 PM - 2:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:30 PM - 2:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
2:45 PM - 3:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:00 PM - 3:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:15 PM - 3:30 PM	0	0	0		0	0	0		0	0	0		0	1	0	1		1	1
3:30 PM - 3:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
3:45 PM - 4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:00 PM - 4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:15 PM - 4:30 PM	0	0	0		0	1	0	1	0	0	0		0	2	0	2		3	3
4:30 PM - 4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
4:45 PM - 5:00 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
5:00 PM - 5:15 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
5:15 PM - 5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:30 PM - 5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
5:45 PM - 6:00 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
6:00 PM - 6:15 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:15 PM - 6:30 PM	0	0	0		0	1	0	1	0	0	0		0	0	0			1	1
6:30 PM - 6:45 PM	0	0	0		0	0	0		0	0	0		0	0	0				
6:45 PM - 7:00 PM	0	0	0		0	0	0		0	0	0		0	0	0				
Total	0	0	0	0	0	9	0	9	0	0	0	0	0	7	0	7	0	16	16
One Hour Volumes																			
6:00 AM - 7:00 AM																			
6:15 AM - 7:15 AM																			
6:30 AM - 7:30 AM														2		2		2	2
6:45 AM - 7:45 AM						2		2						2		2		4	4
7:00 AM - 8:00 AM						2		2						2		2		4	4
7:15 AM - 8:15 AM						2		2						2		2		4	4
7:30 AM - 8:30 AM						2		2										2	2
7:45 AM - 8:45 AM														1		1		1	1
8:00 AM - 9:00 AM														**1**		**1**		**1**	**1**
8:15 AM - 9:15 AM														1		1		1	1
8:30 AM - 9:30 AM														1		1		1	1
8:45 AM - 9:45 AM																			
9:00 AM - 10:00 AM																			
9:15 AM - 10:15 AM																			
9:30 AM - 10:30 AM																			
9:45 AM - 10:45 AM																			
10:00 AM - 11:00 AM																			
10:15 AM - 11:15 AM																			
10:30 AM - 11:30 AM																			
10:45 AM - 11:45 AM																			
11:00 AM - 12:00 PM																			
11:15 AM - 12:15 PM																			
11:30 AM - 12:30 PM																			
11:45 AM - 12:45 PM																			
12:00 PM - 1:00 PM														1		1		1	1
12:15 PM - 1:15 PM														1		1		1	1
12:30 PM - 1:30 PM						1		1						1		1		2	2
12:45 PM - 1:45 PM						1		1						1		1		2	2
1:00 PM - 2:00 PM						2		2										2	2
1:15 PM - 2:15 PM						2		2										2	2
1:30 PM - 2:30 PM						1		1										1	1
1:45 PM - 2:45 PM						1		1										1	1
2:00 PM - 3:00 PM																			
2:15 PM - 3:15 PM																			
2:30 PM - 3:30 PM														1		1		1	1
2:45 PM - 3:45 PM														1		1		1	1
3:00 PM - 4:00 PM														1		1		1	1
3:15 PM - 4:15 PM														1		1		1	1
3:30 PM - 4:30 PM						1		1						2		2		3	3
3:45 PM - 4:45 PM						1		1						2		2		3	3
4:00 PM - 5:00 PM						**2**		**2**						**2**		**2**		**4**	**4**
4:15 PM - 5:15 PM						3		3						2		2		5	5
4:30 PM - 5:30 PM						2		2										2	2
4:45 PM - 5:45 PM						2		2										2	2
5:00 PM - 6:00 PM						2		2										2	2
5:15 PM - 6:15 PM						1		1										1	1
5:30 PM - 6:30 PM						2		2										2	2
5:45 PM - 6:45 PM						2		2										2	2
6:00 PM - 7:00 PM						1		1										1	1

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W + A JOB NO: 7379
INTERSECTION: University Drive & University Plaza
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Jose
INPUTED BY: Jose



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	1	0	0	0	3	0	0					
6:15 AM	-	6:30 AM	0	2	0	0	1	2	0	0					
6:30 AM	-	6:45 AM	0	0	0	0	0	2	0	0					
6:45 AM	-	7:00 AM	0	1	0	0	0	0	0	0					
7:00 AM	-	7:15 AM	0	1	0	0	1	2	0	0					
7:15 AM	-	7:30 AM	0	0	0	0	0	1	0	0					
7:30 AM	-	7:45 AM	0	2	0	0	1	0	0	0					
7:45 AM	-	8:00 AM	0	1	0	0	0	4	0	0					
8:00 AM	-	8:15 AM	0	1	0	0	1	2	0	0					
8:15 AM	-	8:30 AM	0	1	0	0	0	1	0	0					
8:30 AM	-	8:45 AM	0	0	0	0	0	3	0	0					
8:45 AM	-	9:00 AM	0	1	0	0	0	2	0	0					
9:00 AM	-	9:15 AM	0	1	0	0	0	1	0	0					
9:15 AM	-	9:30 AM	0	2	0	0	2	1	0	0					
9:30 AM	-	9:45 AM	0	1	0	0	2	7	0	0					
9:45 AM	-	10:00 AM	1	0	0	0	0	3	0	0					
10:00 AM	-	10:15 AM	0	0	0	0	1	8	1	0					
10:15 AM	-	10:30 AM	1	1	0	0	0	7	0	0					
10:30 AM	-	10:45 AM	1	0	0	0	0	3	0	0					
10:45 AM	-	11:00 AM	0	2	0	0	1	3	0	0					
11:00 AM	-	11:15 AM	0	0	0	0	0	1	0	0					
11:15 AM	-	11:30 AM	0	0	0	0	0	3	0	0					
11:30 AM	-	11:45 AM	1	0	0	0	0	9	0	0					
11:45 AM	-	12:00 PM	0	3	0	0	7	8	2	0					
12:00 PM	-	12:15 PM	2	2	0	0	0	3	0	0					
12:15 PM	-	12:30 PM	1	1	0	0	2	4	0	0					
12:30 PM	-	12:45 PM	1	1	0	0	1	2	0	0					
12:45 PM	-	1:00 PM	1	2	0	0	2	2	0	3					
1:00 PM	-	1:15 PM	0	1	0	0	1	11	0	0					
1:15 PM	-	1:30 PM	0	1	0	0	10	3	0	0					
1:30 PM	-	1:45 PM	0	1	0	0	8	9	0	0					
1:45 PM	-	2:00 PM	1	0	0	0	2	3	0	0					
2:00 PM	-	2:15 PM	1	0	0	0	2	3	0	0					
2:15 PM	-	2:30 PM	0	0	1	0	10	2	0	0					
2:30 PM	-	2:45 PM	1	0	0	0	6	6	0	0					
2:45 PM	-	3:00 PM	1	0	0	0	3	2	0	0					
3:00 PM	-	3:15 PM	0	0	0	0	13	5	0	0					
3:15 PM	-	3:30 PM	0	1	0	0	3	18	0	0					
3:30 PM	-	3:45 PM	1	0	0	0	4	3	0	0					
3:45 PM	-	4:00 PM	0	1	0	0	12	6	0	0					
4:00 PM	-	4:15 PM	7	0	0	0	8	7	0	0					
4:15 PM	-	4:30 PM	0	2	0	0	21	6	0	0					
4:30 PM	-	4:45 PM	2	0	0	0	8	3	0	0					
4:45 PM	-	5:00 PM	0	1	0	0	1	2	0	0					
5:00 PM	-	5:15 PM	0	1	0	0	2	4	0	0					
5:15 PM	-	5:30 PM	0	2	0	0	2	0	0	0					
5:30 PM	-	5:45 PM	0	0	0	0	1	1	0	0					
5:45 PM	-	6:00 PM	0	0	0	1	1	0	0	0					
6:00 PM	-	6:15 PM	0	2	0	0	1	1	0	0					
6:15 PM	-	6:30 PM	0	1	0	0	1	0	0	0					
6:30 PM	-	6:45 PM	0	0	0	0	0	1	0	1					
6:45 PM	-	7:00 PM	0	0	0	1	4	1	0	1					
Total			23	41	1	2	146	184	3	5					
One Hour Volumes															
6:00 AM	-	7:00 AM		4			1	7			4		8		12
6:15 AM	-	7:15 AM		4			2	6			4		8		12
6:30 AM	-	7:30 AM		2			1	5			2		6		8
6:45 AM	-	7:45 AM		4			2	3			4		5		9
7:00 AM	-	8:00 AM		4			2	7			4		9		13
7:15 AM	-	8:15 AM		4			2	7			4		9		13
7:30 AM	-	8:30 AM		5			2	7			5		9		14
7:45 AM	-	8:45 AM		3			1	10			3		11		14
8:00 AM	-	**9:00 AM**		**3**			**1**	**8**			**3**		**9**		**12**
8:15 AM	-	9:15 AM		3				7			3		7		10
8:30 AM	-	9:30 AM		4			2	7			4		9		13
8:45 AM	-	9:45 AM		5			4	11			5		15		20
9:00 AM	-	10:00 AM	1	4			4	12			5		16		21
9:15 AM	-	10:15 AM	1	3			5	19	1		4		24	1	29
9:30 AM	-	10:30 AM	2	2			3	25	1		4		28	1	33
9:45 AM	-	10:45 AM	3	1			1	21	1		4		22	1	27
10:00 AM	-	11:00 AM	2	3			2	21	1		5		23	1	29
10:15 AM	-	11:15 AM	2	3			1	14			5		15		20
10:30 AM	-	11:30 AM	1	2			1	10			3		11		14
10:45 AM	-	11:45 AM	1	2			1	16			3		17		20
11:00 AM	-	12:00 PM	1	3			7	21	2		4		28	2	34
11:15 AM	-	12:15 PM	3	5			7	23	2		8		30	2	40
11:30 AM	-	12:30 PM	4	6			9	24	2		10		33	2	45
11:45 AM	-	12:45 PM	4	7			10	17	2		11		27	2	40
12:00 PM	-	1:00 PM	5	6			5	11		3	11		16	3	30
12:15 PM	-	1:15 PM	3	5			6	19		3	8		25	3	36
12:30 PM	-	1:30 PM	2	5			14	18		3	7		32	3	42
12:45 PM	-	1:45 PM	1	5			21	25		3	6		46	3	55
1:00 PM	-	2:00 PM	1	3			21	26			4		47		51
1:15 PM	-	2:15 PM	2	2			22	18			4		40		44
1:30 PM	-	2:30 PM	2	1	1		22	17			3	1	39		43
1:45 PM	-	2:45 PM	3		1		20	14			3	1	34		38
2:00 PM	-	3:00 PM	3		1		21	13			3	1	34		38
2:15 PM	-	3:15 PM	2		1		32	15			2	1	47		50
2:30 PM	-	3:30 PM	2	1			25	31			3		56		59
2:45 PM	-	3:45 PM	2	1			23	28			3		51		54
3:00 PM	-	4:00 PM	1	2			32	32			3		64		67
3:15 PM	-	4:15 PM	8	2			27	34			10		61		71
3:30 PM	-	4:30 PM	8	3			45	22			11		67		78
3:45 PM	-	4:45 PM	9	3			49	22			12		71		83
4:00 PM	-	**5:00 PM**	**9**	**3**			**38**	**18**			**12**		**56**		**68**
4:15 PM	-	5:15 PM	2	4			32	15			6		47		53
4:30 PM	-	5:30 PM	2	4			13	9			6		22		28
4:45 PM	-	5:45 PM		4			6	7			4		13		17
5:00 PM	-	6:00 PM		3		1	6	5			3	1	11		15
5:15 PM	-	6:15 PM		4		1	5	2			4	1	7		12
5:30 PM	-	6:30 PM		3		1	4	2			3	1	6		10
5:45 PM	-	6:45 PM		3		1	3	2		1	3	1	5	1	10
6:00 PM	-	7:00 PM		3		1	6	3		2	3	1	9	2	15

McLean, Virginia

Turning Movement Count - Total Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: Ox Road & University Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Ali & Meli
INPUTED BY: agan

SOUTHBOUND ROAD: Ox Road - 123
NORTHBOUND ROAD: Ox Road - 123
WESTBOUND ROAD: University Drive - 6871
EASTBOUND ROAD: University Drive - 6871

Time Period			Southbound Ox Road - 123					Westbound University Drive - 6871					Northbound Ox Road - 123					Eastbound University Drive - 6871					North & South	East & West	Total
			Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
15 Minute Volumes																									
6:00 AM	-	6:15 AM	9	32	6	47		5	16	11	32		16	156	44	216		8	2	5	15		263	47	310
6:15 AM	-	6:30 AM	3	33	15	51		2	4	3	9		12	224	20	256		7	5	5	17		307	26	333
6:30 AM	-	6:45 AM	1	53	11	65		7	1	7	15		27	199	11	237		11	4	9	24		302	39	341
6:45 AM	-	7:00 AM	3	55	14	72		7	3	12	22		35	318	21	374		13	4	5	22		446	44	490
7:00 AM	-	7:15 AM	6	84	24	114		3	5	5	13		68	281	20	369		6	3	8	17		483	30	513
7:15 AM	-	7:30 AM	7	89	36	132		6	3	19	28		79	334	14	427		11	4	5	20		559	48	607
7:30 AM	-	7:45 AM	1	118	40	159		10	4	32	46		88	292	24	404		28	18	12	58		563	104	667
7:45 AM	-	8:00 AM	9	116	51	176		9	7	28	44		77	304	22	403		33	8	9	50		579	94	673
8:00 AM	-	8:15 AM	5	128	47	180		8	4	28	40		85	258	38	381		26	38	17	81		561	121	682
8:15 AM	-	8:30 AM	19	99	70	188		8	12	26	46		120	297	52	469		21	6	7	34		657	80	737
8:30 AM	-	8:45 AM	19	90	79	188		14	12	32	58		121	259	36	416		9	14	9	32		604	90	694
8:45 AM	-	9:00 AM	16	108	103	227		13	10	32	55		85	292	37	414		21	12	9	42		641	97	738
9:00 AM	-	9:15 AM	10	87	58	155		17	5	26	48		79	294	40	413		15	13	7	35		568	83	651
9:15 AM	-	9:30 AM	14	111	53	178		7	2	17	26		73	327	22	422		23	6	16	45		600	71	671
9:30 AM	-	9:45 AM	15	90	51	156		14	6	18	38		64	209	32	305		22	7	9	38		461	76	537
9:45 AM	-	#######	12	96	63	171		4	9	20	33		78	225	33	336		14	12	7	33		507	66	573
#######	-	#######	29	119	66	214		12	8	20	40		70	195	36	301		5	10	5	20		515	60	575
#######	-	#######	11	121	79	211		18	8	35	61		67	173	35	275		18	6	10	34		486	95	581
#######	-	#######	16	110	46	172		15	10	22	47		48	151	27	226		16	4	11	31		398	78	476
#######	-	#######	10	129	36	175		16	5	21	42		34	200	20	254		12	5	6	23		429	65	494
#######		#######	8	141	38	187		3	6	22	31		23	147	16	186		9	4	6	19		373	50	423
#######		#######	13	148	48	209		17	11	28	56		49	162	24	235		16	19	8	43		444	99	543
#######		#######	12	172	60	244		8	9	24	41		64	179	33	276		10	5	7	22		520	63	583
#######		12:00 PM	9	170	72	251		35	9	56	100		44	156	33	233		26	14	8	48		484	148	632
12:00 PM		12:15 PM	17	161	56	234		33	10	53	96		37	165	19	221		29	26	6	61		455	157	612
12:15 PM		12:30 PM	11	138	37	186		24	8	43	75		38	148	14	200		21	9	10	40		386	115	501
12:30 PM		12:45 PM	20	154	38	212		21	14	32	67		30	170	21	221		23	14	6	43		433	110	543
12:45 PM		1:00 PM	14	156	53	223		14	11	31	56		48	141	31	220		20	12	11	43		443	99	542
1:00 PM		1:15 PM	6	167	79	252		23	6	45	74		68	158	33	259		18	17	10	45		511	119	630
1:15 PM		1:30 PM	11	123	59	193		24	5	62	91		42	191	31	264		14	16	5	35		457	126	583
1:30 PM		1:45 PM	9	171	51	231		44	7	58	109		50	190	28	268		35	7	8	50		499	159	658
1:45 PM		2:00 PM	9	160	40	209		26	10	43	79		17	160	26	203		21	4	6	31		412	110	522
2:00 PM		2:15 PM	11	154	32	197		13	6	46	65		31	170	13	214		16	11	9	36		411	101	512
2:15 PM		2:30 PM	17	187	38	242		27	4	70	101		45	162	23	230		26	8	8	42		472	143	615
2:30 PM		2:45 PM	20	185	59	264		21	9	63	93		43	161	44	248		25	11	9	45		512	138	650
2:45 PM		3:00 PM	16	245	60	321		46	13	77	136		50	191	27	268		23	19	16	58		589	194	783
3:00 PM		3:15 PM	12	274	34	320		47	17	112	176		47	170	24	241		50	13	16	79		561	255	816
3:15 PM		3:30 PM	20	302	32	354		28	21	57	106		34	133	41	208		26	6	13	45		562	151	713
3:30 PM		3:45 PM	7	228	42	277		13	8	61	82		44	135	27	206		20	6	9	35		483	117	600
3:45 PM		4:00 PM	13	218	45	276		28	17	53	98		74	137	44	255		29	14	7	50		531	148	679
4:00 PM		4:15 PM	13	245	44	302		20	14	86	120		74	126	57	257		34	13	10	57		559	177	736
4:15 PM		4:30 PM	17	282	51	350		27	19	95	141		59	164	25	248		36	13	10	59		598	200	798
4:30 PM		4:45 PM	20	251	51	322		26	19	114	159		48	169	27	244		38	14	10	62		566	221	787
4:45 PM		5:00 PM	20	278	25	323		21	17	82	120		29	160	29	218		55	18	12	85		541	205	746
5:00 PM		5:15 PM	11	250	31	292		34	20	69	123		38	139	30	207		15	14	13	42		499	165	664
5:15 PM		5:30 PM	16	252	54	322		28	27	92	147		44	144	31	219		19	12	20	51		541	198	739
5:30 PM		5:45 PM	6	203	47	256		29	10	67	106		29	146	21	196		24	22	17	63		452	169	621
5:45 PM		6:00 PM	10	233	44	287		24	25	64	113		28	168	33	229		15	9	13	37		516	150	666
6:00 PM		6:15 PM	4	241	32	277		23	9	72	104		29	170	39	238		28	13	14	55		515	159	674
6:15 PM		6:30 PM	8	221	48	277		31	13	96	140		43	155	21	219		20	7	5	32		496	172	668
6:30 PM		6:45 PM	11	221	44	276		30	10	52	92		26	161	24	211		38	13	24	75		487	167	654
6:45 PM		7:00 PM	15	204	55	274									32	32		28	9	22	59		306	59	365
Total			621	8403	2447	11471		983	518	2339	3840		2651	9916	1505	14072		1126	573	519	2218		25543	6058	31601
One Hour Volumes																									
6:00 AM	-	7:00 AM	16	173	46	235	0.816	21	24	33	78	0.6094	90	897	96	1083	0.7239	39	15	24	78	0.8125	1318	156	1474
6:15 AM	-	7:15 AM	13	225	64	302	0.6623	19	13	27	59	0.6705	142	1022	72	1236	0.8262	37	16	27	80	0.8333	1538	139	1677
6:30 AM	-	7:30 AM	17	281	85	383	0.7354	23	12	43	78	0.6964	209	1132	66	1407	0.8238	41	15	27	83	0.8646	1790	161	1951
6:45 AM	-	7:45 AM	17	346	114	477	0.75	26	15	68	109	0.5924	270	1225	79	1574	0.9215	58	29	30	117	0.5043	2051	226	2277
7:00 AM	-	8:00 AM	23	407	151	581	0.8253	28	19	84	131	0.712	312	1211	80	1603	0.9385	78	33	34	145	0.625	2184	276	2460
7:15 AM	-	8:15 AM	22	451	174	647	0.8986	33	18	107	158	0.8587	329	1188	98	1615	0.9456	98	68	43	209	0.6451	2262	367	2629
7:30 AM	-	8:30 AM	34	461	208	703	0.9348	35	27	114	176	0.9565	370	1151	136	1657	0.8833	108	70	45	223	0.6883	2360	399	2759
7:45 AM	-	8:45 AM	52	433	247	732	0.9734	39	35	114	188	0.8103	403	1118	148	1669	0.8897	89	66	42	197	0.608	2401	385	2786
8:00 AM	**-**	**9:00 AM**	**59**	**425**	**299**	**783**	**0.8623**	**43**	**38**	**118**	**199**	**0.8578**	**411**	**1106**	**163**	**1680**	**0.8955**	**77**	**70**	**42**	**189**	**0.5833**	**2463**	**388**	**2851**
8:15 AM	-	9:15 AM	64	384	310	758	0.8348	52	39	116	207	0.8922	405	1142	165	1712	0.9126	66	45	32	143	0.8512	2470	350	2820
8:30 AM	-	9:30 AM	59	396	293	748	0.8238	51	29	107	187	0.806	358	1172	135	1665	0.9864	68	45	41	154	0.8556	2413	341	2754
8:45 AM	-	9:45 AM	55	396	265	716	0.7885	51	23	93	167	0.7591	301	1122	131	1554	0.9206	81	38	41	160	0.8889	2270	327	2597
9:00 AM		#######	51	384	225	660	0.927	42	22	81	145	0.7552	294	1055	127	1476	0.8744	74	38	39	151	0.8389	2136	296	2432
9:15 AM		#######	70	416	233	719	0.84	37	25	75	137	0.8563	285	956	123	1364	0.8081	64	35	37	136	0.7556	2083	273	2356
9:30 AM		#######	67	426	259	752	0.8785	48	31	93	172	0.7049	279	802	136	1217	0.9055	59	35	31	125	0.8224	1969	297	2266
9:45 AM		#######	68	446	254	768	0.8972	49	35	97	181	0.7418	263	744	131	1138	0.8467	53	32	33	118	0.8676	1906	299	2205
#######		#######	66	479	227	772	0.9019	61	31	98	190	0.7787	219	719	118	1056	0.8771	51	25	32	108	0.7941	1828	298	2126
#######		#######	45	501	199	745	0.8827	52	29	100	181	0.7418	172	671	98	941	0.8555	55	19	33	107	0.7868	1686	288	1974
#######		#######	47	528	168	743	0.8888	51	32	93	176	0.7857	154	660	87	901	0.8868	53	32	31	116	0.6744	1644	292	1936
#######		#######	43	590	182	815	0.835	44	31	95	170	0.7589	170	688	93	951	0.8614	47	33	27	107	0.6221	1766	277	2043
#######		12:00 PM	42	631	218	891	0.8875	63	35	130	228	0.57	180	644	106	930	0.8424	61	42	29	132	0.6875	1821	360	2181
#######		12:15 PM	51	651	236	938	0.9343	93	39	161	293	0.7325	194	662	109	965	0.8741	81	64	29	174	0.7131	1903	467	2370
#######		12:30 PM	49	641	225	915	0.9114	100	36	176	312	0.78	183	648	99	930	0.8424	86	54	31	171	0.7008	1845	483	2328
#######		12:45 PM	57	623	203	883	0.8795	113	41	184	338	0.845	149	639	87	875	0.9388	99	63	30	192	0.7869	1758	530	2288
12:00 PM		1:00 PM	62	609	184	855	0.9135	92	43	159	294	0.7656	153	624	85	862	0.9751	93	61	33	187	0.7664	1717	481	2198
12:15 PM		1:15 PM	51	615	207	873	0.8661	82	39	151	272	0.9067	184	617	99	900	0.8687	82	52	37	171	0.95	1773	443	2216
12:30 PM		1:30 PM	51	600	229	880	0.873	82	36	170	288	0.7912	188	660	116	964	0.9129	75	59	32	166	0.9222	1844	454	2298
12:45 PM		1:45 PM	40	617	242	899	0.8919	105	29	196	330	0.7569	208	680	123	1011	0.9431	87	52	34	173	0.865	1910	503	2413
1:00 PM		2:00 PM	35	621	229	885	0.878	117	28	208	353	0.8096	177	699	118	994	0.9272	88	44	29	161	0.805	1879	514	2393
1:15 PM		2:15 PM	40	608	182	830	0.8983	107	28	209	344	0.789	140	711	98	949	0.8853	86	38	28	152	0.76	1779	496	2275
1:30 PM		2:30 PM	46	672	161	879	0.9081	110	27	217	354	0.8119	143	682	90	915	0.8535	98	30	31	159	0.795	1794	513	2307
1:45 PM		2:45 PM	57	686	169	912	0.8636	87	29	222	338	0.8366	136	653	106	895	0.9022	88	34	32	154	0.8556	1807	492	2299
2:00 PM		3:00 PM	64	771	189	1024	0.7975	107	32	256	395	0.7261	169	684	107	960	0.8955	90	49	42	181	0.7802	1984	576	2560
2:15 PM		3:15 PM	65	891	191	1147	0.8933	141	43	322	506	0.7188	185	684	118	987	0.9207	124	51	49	224	0.7089	2134	730	2864
2:30 PM		3:30 PM	68	1006	185	1259	0.8891	142	60	309	511	0.7259	174	655	136	965	0.9002	124	49	54	227	0.7184	2224	738	2962
2:45 PM		3:45 PM	55	1049	168	1272	0.8983	134	59	307	500	0.7102	175	629	119	923	0.861	119	44	54	217	0.6867	2195	717	2912
3:00 PM		4:00 PM	52	1022	153	1227	0.8665	116	63	283	462	0.6563	199	575	136	910	0.8922	125	39	45	209	0.6614	2137	671	2808
3:15 PM		4:15 PM	53	993	163	1209	0.8538	89	60	257	406	0.8458	226	531	169	926	0.9008	109	39	39	187	0.8202	2135	593	2728
3:30 PM		4:30 PM	50	973	182	1205	0.8607	88	58	295	441	0.7819	251	562	153	966	0.9397	119	46	36	201	0.8517	2171	642	2813
3:45 PM		4:45 PM	63	996	191	1250	0.8929	101	69	348	518	0.8145	255	596	153	1004	0.9767	137	54	37	228	0.9194	2254	746	3000
4:00 PM		**5:00 PM**	**70**	**1056**	**171**	**1297**	**0.9264**	**94**	**69**	**377**	**540**	**0.8491**	**210**	**619**	**138**	**967**	**0.9407**	**163**	**58**	**42**	**263**	**0.7735**	**2264**	**803**	**3067**
4:15 PM		5:15 PM	68	1061	158	1287	0.9193	108	75	360	543	0.8538	174	632	111	917	0.9244	144	59	45	248	0.7294	2204	791	2995
4:30 PM		5:30 PM	67	1031	161	1259	0.9745	109	83	357	549	0.8632	159	612	117	888	0.9098	127	58	55	240	0.7059	2147	789	2936
4:45 PM		5:45 PM	53	983	157	1193	0.9234	112	74	310	496	0.8435	140	589	111	840	0.9589	113	66	62	241	0.7088	2033	737	2770
5:00 PM		6:00 PM	43	938	176	1157	0.8983	115	82	292	489	0.8316	139	597	115	851	0.929	73	57	63	193	0.7659	2008	682	2690
5:15 PM		6:15 PM	36	929	177	1142	0.8866	104	71	295	470	0.7993	130	628	124	882	0.9265	86	56	64	206	0.8175	2024	676	2700
5:30 PM		6:30 PM	28	898	171	1097	0.9556	107	57	299	463	0.8268	129	639	114	882	0.9265	87	51	49	187	0.7421	1979	650	2629
5:45 PM		6:45 PM	33	916	168	1117	0.973	108	57	284	449	0.8018	126	654	117	897	0.9422	101	42	56	199	0.6633	2014	648	2662
6:00 PM	-	7:00 PM	38	384	179	1104	0.9964	84	32	220	336	0.6	98	486	116	700	0.7353	114	42	65	221	0.7367	1804	557	2361

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: Ox Road & University Dr.
LOCATION: Fairfax County,VA

DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Meli
INPUTED BY: agan

SOUTHBOUND ROAD: Ox Road - 123
NORTHBOUND ROAD: Ox Road - 123
WESTBOUND ROAD: University Drive - 6871
EASTBOUND ROAD: University Drive - 6871

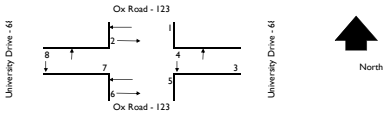
Time Period	Southbound Ox Road - 123				Westbound University Drive - 6871				Northbound Ox Road - 123				Eastbound University Drive - 6871				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
15 Minute Volumes																			
6:00 AM - 6:15 AM	1			1													1		1
6:15 AM - 6:30 AM																			
6:30 AM - 6:45 AM																			
6:45 AM - 7:00 AM																			
7:00 AM - 7:15 AM																			
7:15 AM - 7:30 AM																			
7:30 AM - 7:45 AM																			
7:45 AM - 8:00 AM		1		1			1	1						1		1	1	2	3
8:00 AM - 8:15 AM														1		1		1	1
8:15 AM - 8:30 AM														1		1		1	1
8:30 AM - 8:45 AM														3		3		3	3
8:45 AM - 9:00 AM														3		3		3	3
9:00 AM - 9:15 AM						1		1						1		1		2	2
9:15 AM - 9:30 AM														1		1		1	1
9:30 AM - 9:45 AM		1		1													1		1
9:45 AM - 10:00 AM																			
10:00 AM - 10:15 AM																			
10:15 AM - 10:30 AM		1		1			1	1						2		2	1	3	4
10:30 AM - 10:45 AM		1		1										1		1	1	1	2
10:45 AM - 11:00 AM		1		1										4		4	1	4	5
11:00 AM - 11:15 AM																			
11:15 AM - 11:30 AM		1												1					
11:30 AM - 11:45 AM													1						
11:45 AM - 12:00 PM		1	1			1	1			2				1					
12:00 PM - 12:15 PM														1					
12:15 PM - 12:30 PM		1												2					
12:30 PM - 12:45 PM														1					
12:45 PM - 1:00 PM																			
1:00 PM - 1:15 PM		1				1				1				1					
1:15 PM - 1:30 PM						1								2					
1:30 PM - 1:45 PM		1				1													
1:45 PM - 2:00 PM						1				1									
2:00 PM - 2:15 PM		1				1				1				1					
2:15 PM - 2:30 PM																			
2:30 PM - 2:45 PM														1					
2:45 PM - 3:00 PM		1								1				2					
3:00 PM - 3:15 PM										1				1					
3:15 PM - 3:30 PM		1	1							1				1					
3:30 PM - 3:45 PM						1				2					2				
3:45 PM - 4:00 PM																			
4:00 PM - 4:15 PM																			
4:15 PM - 4:30 PM		1				3				2									
4:30 PM - 4:45 PM																			
4:45 PM - 5:00 PM																			
5:00 PM - 5:15 PM						1								1					
5:15 PM - 5:30 PM														1					
5:30 PM - 5:45 PM																			
5:45 PM - 6:00 PM													1	1					
6:00 PM - 6:15 PM																			
6:15 PM - 6:30 PM																			
6:30 PM - 6:45 PM						1		1										1	1
6:45 PM - 7:00 PM						1		1										1	1
Total	1	14	2	6	0	14	3	5	0	12	0	0	2	36	2	18	6	23	29
One Hour Volumes																			
6:00 AM - 7:00 AM	1			1													1		1
6:15 AM - 7:15 AM																			
6:30 AM - 7:30 AM																			
6:45 AM - 7:45 AM																			
7:00 AM - 8:00 AM		1		1			1	1						1		1	1	2	3
7:15 AM - 8:15 AM		1		1			1	1						2		2	1	3	4
7:30 AM - 8:30 AM		1		1			1	1						3		3	1	4	5
7:45 AM - 8:45 AM		1		1			1	1						6		6	1	7	8
8:00 AM - 9:00 AM														**8**		**8**		**8**	**8**
8:15 AM - 9:15 AM						1		1						8		8		9	9
8:30 AM - 9:30 AM						1		1						8		8		9	9
8:45 AM - 9:45 AM		1		1		1		1						5		5	1	6	7
9:00 AM - 10:00 AM		1		1		1		1						2		2	1	3	4
9:15 AM - 10:15 AM		1		1										1		1	1	1	2
9:30 AM - 10:30 AM		2		2			1	1						2		2	2	3	5
9:45 AM - 10:45 AM		2		2			1	1						3		3	2	4	6
10:00 AM - 11:00 AM		3		3			1	1						7		7	3	8	11
10:15 AM - 11:15 AM		3		3			1	1						7		7	3	8	11
10:30 AM - 11:30 AM		3		2										6		5	2	5	7
10:45 AM - 11:45 AM		2		1									1	5		4	1	4	5
11:00 AM - 12:00 PM		2	1			1	1			2			1	2					
11:15 AM - 12:15 PM		2	1			1	1			2			1	3					
11:30 AM - 12:30 PM		2	1			1	1			2			1	4					
11:45 AM - 12:45 PM		2	1			1	1			2				5					
12:00 PM - 1:00 PM		1												4					
12:15 PM - 1:15 PM		2				1				1				4					
12:30 PM - 1:30 PM		1				2				1				4					
12:45 PM - 1:45 PM		2				3				1				3					
1:00 PM - 2:00 PM		2				4				2				3					
1:15 PM - 2:15 PM		2				4				2				3					
1:30 PM - 2:30 PM		2				3				2				1					
1:45 PM - 2:45 PM		1				2				2				2					
2:00 PM - 3:00 PM		2				1				2				4					
2:15 PM - 3:15 PM		1								2				4					
2:30 PM - 3:30 PM		2	1							3				5					
2:45 PM - 3:45 PM		2	1			1				5				4	2				
3:00 PM - 4:00 PM		1	1			1				4				2	2				
3:15 PM - 4:15 PM		1	1			1				3				1	2				
3:30 PM - 4:30 PM		1				4				4					2				
3:45 PM - 4:45 PM		1				3				2									
4:00 PM - 5:00 PM		**1**				**3**				**2**									
4:15 PM - 5:15 PM		1				4				2				1					
4:30 PM - 5:30 PM						1								2					
4:45 PM - 5:45 PM						1								2					
5:00 PM - 6:00 PM						1							1	3					
5:15 PM - 6:15 PM													1	2					
5:30 PM - 6:30 PM													1	1					
5:45 PM - 6:45 PM						1		1					1	1				1	1
6:00 PM - 7:00 PM						2		2										2	2

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W + A JOB NO: 7379
INTERSECTION: Ox Road & University Dr.
LOCATION: Fairfax County,VA
DATE: 10/24/2018
DAY: Wednesday
WEATHER: clear
COUNTED BY: Ali
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					5	3		2					
6:15 AM	-	6:30 AM			1		2	6							
6:30 AM	-	6:45 AM				3		4							
6:45 AM	-	7:00 AM		2	1	1	2	5							
7:00 AM	-	7:15 AM					1	10							
7:15 AM	-	7:30 AM				1		13		2					
7:30 AM	-	7:45 AM			1		1	9							
7:45 AM	-	8:00 AM		3		5	2	10	2						
8:00 AM	-	8:15 AM		2	1	1	4	14							
8:15 AM	-	8:30 AM					1	14							
8:30 AM	-	8:45 AM					2	29		8					
8:45 AM	-	9:00 AM		4		2				2					
9:00 AM	-	9:15 AM		1		1	2		1	1					
9:15 AM	-	9:30 AM					8								
9:30 AM	-	9:45 AM	1				12	20							
9:45 AM	-	10:00 AM					4	26							
10:00 AM	-	10:15 AM	1	7		9	3	43	1	9					
10:15 AM	-	10:30 AM	1	1		2	18	50	1	10					
10:30 AM	-	10:45 AM		1	1		24	17		4					
10:45 AM	-	11:00 AM		1		1	23	17		3					
11:00 AM	-	11:15 AM		1		1	21	13		2					
11:15 AM	-	11:30 AM	1	1			13	34							
11:30 AM	-	11:45 AM	4	1		4	11	18							
11:45 AM	-	12:00 PM			1		18	30	1	4					
12:00 PM	-	12:15 PM	1		5	1	48	21							
12:15 PM	-	12:30 PM	1		3	1	27	23	3	1					
12:30 PM	-	12:45 PM	1				15	14	2						
12:45 PM	-	1:00 PM			1	1	10	10							
1:00 PM	-	1:15 PM	1		1	2	12	36	2	2					
1:15 PM	-	1:30 PM			1		13	32	2						
1:30 PM	-	1:45 PM	1		1	1	32	13	2	1					
1:45 PM	-	2:00 PM		2	2		21	13	3						
2:00 PM	-	2:15 PM	2		1		10	14	2	2					
2:15 PM	-	2:30 PM					12	10		2					
2:30 PM	-	2:45 PM	3				13	18		2					
2:45 PM	-	3:00 PM	1		2		37	42	3	1					
3:00 PM	-	3:15 PM	2	1			17	8	9	3					
3:15 PM	-	3:30 PM	1			1	20	14	7						
3:30 PM	-	3:45 PM			2		12	5	2	2					
3:45 PM	-	4:00 PM	1	2	3	3	20	23	5	2					
4:00 PM	-	4:15 PM		2			23	18	2						
4:15 PM	-	4:30 PM	2		2	3	27	23	5	6					
4:30 PM	-	4:45 PM		3		3	31	32	3	2					
4:45 PM	-	5:00 PM	1	5		3	38	24	2	2					
5:00 PM	-	5:15 PM	3	1			14	4							
5:15 PM	-	5:30 PM		2			18	8	2						
5:30 PM	-	5:45 PM		3			19	15	4						
5:45 PM	-	6:00 PM		4		2	22	14	3	1					
6:00 PM	-	6:15 PM		1			12	8	2						
6:15 PM	-	6:30 PM		1			19	7		2					
6:30 PM	-	6:45 PM					25	15							
6:45 PM	-	7:00 PM					25	19							
Total			29	52	30	52	769	868	71	78					
One Hour Volumes															
6:00 AM	-	7:00 AM		2	2	4	9	18		2	2	6	27	2	37
6:15 AM	-	7:15 AM		2	2	4	5	25			2	6	30		38
6:30 AM	-	7:30 AM		2	1	5	3	32		2	2	6	35	2	45
6:45 AM	-	7:45 AM		2	2	2	4	37		2	2	4	41	2	49
7:00 AM	-	8:00 AM		3	1	6	4	42	2	2	3	7	46	4	60
7:15 AM	-	8:15 AM		5	2	7	7	46	2	2	5	9	53	4	71
7:30 AM	-	8:30 AM		5	2	6	8	47	2		5	8	55	2	70
7:45 AM	-	8:45 AM		5	1	6	9	67	2	8	5	7	76	10	98
8:00 AM	**-**	**9:00 AM**		**6**	**1**	**3**	**7**	**57**		**10**	**6**	**4**	**64**	**10**	**84**
8:15 AM	-	9:15 AM		5		3	5	43	1	11	5	3	48	12	68
8:30 AM	-	9:30 AM		5		3	12	29	1	11	5	3	41	12	61
8:45 AM	-	9:45 AM	1	5		3	22	20	1	3	6	3	42	4	55
9:00 AM	-	10:00 AM	1	1		1	26	46	1	1	2	1	72	2	77
9:15 AM	-	10:15 AM	2	7		9	27	89	1	9	9	9	116	10	144
9:30 AM	-	10:30 AM	3	8		11	37	139	2	19	11	11	176	21	219
9:45 AM	-	10:45 AM	2	9	1	11	49	136	2	23	11	12	185	25	233
10:00 AM	-	11:00 AM	2	10	1	12	68	127	2	26	12	13	195	28	248
10:15 AM	-	11:15 AM	1	4	1	4	86	97	1	19	5	5	183	20	213
10:30 AM	-	11:30 AM	1	4	1	2	81	81		9	5	3	162	9	179
10:45 AM	-	11:45 AM	5	4		6	68	82		5	9	6	150	5	170
11:00 AM	-	12:00 PM	5	3	1	5	63	95	1	6	8	6	158	7	179
11:15 AM	-	12:15 PM	6	2	6	5	90	103	1	4	8	11	193	5	217
11:30 AM	-	12:30 PM	6	1	9	6	104	92	4	5	7	15	196	9	227
11:45 AM	-	12:45 PM	3		9	2	108	88	6	5	3	11	196	11	221
12:00 PM	-	1:00 PM	3		9	3	100	68	5	1	3	12	168	6	189
12:15 PM	-	1:15 PM	3		5	4	64	83	7	3	3	9	147	10	169
12:30 PM	-	1:30 PM	2		3	3	50	92	6	2	2	6	142	8	158
12:45 PM	-	1:45 PM	2		4	4	67	91	6	3	2	8	158	9	177
1:00 PM	-	2:00 PM	2	2	5	3	78	94	9	3	4	8	172	12	196
1:15 PM	-	2:15 PM	3	2	5	1	76	72	9	3	5	6	148	12	171
1:30 PM	-	2:30 PM	3	2	4	1	75	50	7	5	5	5	125	12	147
1:45 PM	-	2:45 PM	5	2	3		56	55	5	6	7	3	111	11	132
2:00 PM	-	3:00 PM	6		3		72	84	5	7	6	3	156	12	177
2:15 PM	-	3:15 PM	6	1	2		79	78	12	8	7	2	157	20	186
2:30 PM	-	3:30 PM	7	1	2	1	87	82	19	6	8	3	169	25	205
2:45 PM	-	3:45 PM	4	1	4	1	86	69	21	6	5	5	155	27	192
3:00 PM	-	4:00 PM	4	3	5	4	69	50	23	7	7	9	119	30	165
3:15 PM	-	4:15 PM	2	4	5	4	75	60	16	4	6	9	135	20	170
3:30 PM	-	4:30 PM	3	4	7	6	82	69	14	10	7	13	151	24	195
3:45 PM	-	4:45 PM	3	7	5	9	101	96	15	10	10	14	197	25	246
4:00 PM	**-**	**5:00 PM**	**3**	**10**	**2**	**9**	**119**	**97**	**12**	**10**	**13**	**11**	**216**	**22**	**262**
4:15 PM	-	5:15 PM	6	9	2	9	110	83	10	10	15	11	193	20	239
4:30 PM	-	5:30 PM	4	11		6	101	68	7	4	15	6	169	11	201
4:45 PM	-	5:45 PM	4	11		3	89	51	8	2	15	3	140	10	168
5:00 PM	-	6:00 PM	3	10		2	73	41	9	1	13	2	114	10	139
5:15 PM	-	6:15 PM		10		2	71	45	11	1	10	2	116	12	140
5:30 PM	-	6:30 PM		9		2	72	44	9	3	9	2	116	12	139
5:45 PM	-	6:45 PM		6		2	78	44	5	3	6	2	122	8	138
6:00 PM	-	7:00 PM		2			81	49	2	2	2		130	4	136

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & George Mason Boulevard
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Abdul
INPUTED BY: Jose

SOUTHBOUND ROAD: George Mason Boulevard
NORTHBOUND ROAD: George Mason Boulevard
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

Time Period	Southbound George Mason Boulevard					Westbound University Drive					Northbound George Mason Boulevard					Eastbound University Drive					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	2	2	2	6		6	3	2	11		0	2	3	5		5	9	10	24		11	35	46
6:15 AM - 6:30 AM	9	3	8	20		2	11	0	13		1	2	7	10		2	6	16	24		30	37	67
6:30 AM - 6:45 AM	17	1	8	26		4	8	0	12		0	8	3	11		3	14	23	40		37	52	89
6:45 AM - 7:00 AM	12	6	9	27		9	2	0	11		0	4	4	8		2	14	24	40		35	51	86
7:00 AM - 7:15 AM	7	11	12	30		9	7	0	16		4	1	0	5		4	34	40	78		35	94	129
7:15 AM - 7:30 AM	19	11	19	49		12	14	1	27		6	13	6	25		3	29	44	76		74	103	177
7:30 AM - 7:45 AM	15	11	19	45		5	12	1	18		2	16	2	20		4	34	61	99		65	117	182
7:45 AM - 8:00 AM	25	13	20	58		18	5	0	23		2	10	6	18		5	33	40	78		76	101	177
8:00 AM - 8:15 AM	16	14	25	55		11	6	2	19		4	13	4	21		6	41	56	103		76	122	198
8:15 AM - 8:30 AM	22	24	29	75		22	16	3	41		1	9	4	14		4	54	38	96		89	137	226
8:30 AM - 8:45 AM	12	40	35	87		23	14	1	38		0	3	8	11		10	73	33	116		98	154	252
8:45 AM - 9:00 AM	11	32	47	90		15	23	5	43		4	21	6	31		21	66	38	125		121	168	289
Total	167	168	233	568		136	121	15	272		24	102	53	179		69	407	423	899		747	1171	1918
AM One Hour Volumes																							
6:00 AM - 7:00 AM	40	12	27	79	0.73	21	24	2	47	0.90	1	16	17	34	0.77	12	43	73	128	0.80	113	175	288
6:15 AM - 7:15 AM	45	21	37	103	0.86	24	28	0	52	0.81	5	15	14	34	0.77	11	68	103	182	0.58	137	234	371
6:30 AM - 7:30 AM	55	29	48	132	0.67	34	31	1	66	0.61	10	26	13	49	0.49	12	91	131	234	0.75	181	300	481
6:45 AM - 7:45 AM	53	39	59	151	0.77	35	35	2	72	0.67	12	34	12	58	0.58	13	111	169	293	0.74	209	365	574
7:00 AM - 8:00 AM	66	46	70	182	0.78	44	38	2	84	0.78	14	40	14	68	0.68	16	130	185	331	0.84	250	415	665
7:15 AM - 8:15 AM	75	49	83	207	0.89	46	37	4	87	0.81	14	52	18	84	0.84	18	137	201	356	0.86	291	443	734
7:30 AM - 8:30 AM	78	62	93	233	0.78	56	39	6	101	0.62	9	48	16	73	0.87	19	162	195	376	0.91	306	477	783
7:45 AM - 8:45 AM	75	91	109	275	0.79	74	41	6	121	0.74	7	35	22	64	0.76	25	201	167	393	0.85	339	514	853
8:00 AM - 9:00 AM	**61**	**110**	**136**	**307**	**0.85**	**71**	**59**	**11**	**141**	**0.82**	**9**	**46**	**22**	**77**	**0.62**	**41**	**234**	**165**	**440**	**0.88**	**384**	**581**	**965**
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	34	43	30	107		34	22	4	60		4	20	17	41		9	36	15	60		148	120	268
4:15 PM - 4:30 PM	44	25	28	97		35	57	8	100		5	32	10	47		7	36	30	73		144	173	317
4:30 PM - 4:45 PM	35	37	25	97		52	43	7	102		4	26	17	47		2	15	33	50		144	152	296
4:45 PM - 5:00 PM	36	24	26	86		29	24	5	58		1	24	8	33		6	17	21	44		119	102	221
5:00 PM - 5:15 PM	35	39	27	101		28	16	3	47		1	12	5	18		2	16	16	34		119	81	200
5:15 PM - 5:30 PM	47	47	18	112		40	25	4	69		4	24	4	32		2	14	30	46		144	115	259
5:30 PM - 5:45 PM	39	39	31	109		41	25	3	69		2	12	4	18		8	27	27	62		127	131	258
5:45 PM - 6:00 PM	36	24	17	77		39	19	1	59		1	10	3	14		4	33	17	54		91	113	204
6:00 PM - 6:15 PM	44	37	17	98		29	24	5	58		3	17	14	34		2	21	24	47		132	105	237
6:15 PM - 6:30 PM	45	40	18	103		26	15	1	42		1	17	13	31		4	17	14	35		134	77	211
6:30 PM - 6:45 PM	40	42	24	106		26	17	1	44		2	23	6	31		3	22	10	35		137	79	216
6:45 PM - 7:00 PM	43	36	22	101		33	22	0	55		4	26	10	40		5	35	18	58		141	113	254
Total	478	433	283	1194		412	309	42	763		32	243	111	386		54	289	255	598		1580	1361	2941
PM One Hour Volumes																							
4:00 PM - 5:00 PM	**149**	**129**	**109**	**387**	**0.90**	**150**	**146**	**24**	**320**	**0.78**	**14**	**102**	**52**	**168**	**0.89**	**24**	**104**	**99**	**227**	**0.78**	**555**	**547**	**1102**
4:15 PM - 5:15 PM	150	125	106	381	0.94	144	140	23	307	0.75	11	94	40	145	0.77	17	84	100	201	0.69	526	508	1034
4:30 PM - 5:30 PM	153	147	96	396	0.88	149	108	19	276	0.68	10	86	34	130	0.69	12	62	100	174	0.87	526	450	976
4:45 PM - 5:45 PM	157	149	102	408	0.91	138	90	15	243	0.88	8	72	21	101	0.77	18	74	94	186	0.75	509	429	938
5:00 PM - 6:00 PM	157	149	93	399	0.89	148	85	11	244	0.88	8	58	16	82	0.64	16	90	90	196	0.79	481	440	921
5:15 PM - 6:15 PM	166	147	83	396	0.88	149	93	13	255	0.92	10	63	25	98	0.72	16	95	98	209	0.84	494	464	958
5:30 PM - 6:30 PM	164	140	83	387	0.89	135	83	10	228	0.83	7	56	34	97	0.71	18	98	82	198	0.80	484	426	910
5:45 PM - 6:45 PM	165	143	76	384	0.91	120	75	8	203	0.86	7	67	36	110	0.81	13	93	65	171	0.79	494	374	868
6:00 PM - 7:00 PM	172	155	81	408	0.96	114	78	7	199	0.86	10	83	43	136	0.85	14	95	66	175	0.75	544	374	918

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & George Mason Boulevard
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Abdul
INPUTED BY: Jose
SOUTHBOUND ROAD: George Mason Boulevard
NORTHBOUND ROAD: George Mason Boulevard
WESTBOUND ROAD: University Drive
EASTBOUND ROAD: University Drive

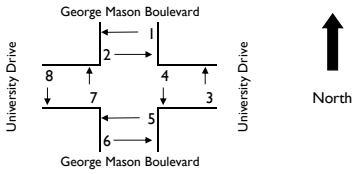
Time Period	Southbound George Mason Boulevard				Westbound University Drive				Northbound George Mason Boulevard				Eastbound University Drive				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
AM 15 Minute Volumes																			
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
7:30 AM - 7:45 AM	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	1	1	2
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
8:45 AM - 9:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	2	0	2	0	6	0	6	0	0	0	0	6	2	8
AM 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	1	0	1	0	0	0	0	1	0	1
6:45 AM - 7:45 AM	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	2	1	3
7:00 AM - 8:00 AM	0	0	0	0	0	1	0	1	0	4	0	4	0	0	0	0	4	1	5
7:15 AM - 8:15 AM	0	0	0	0	0	1	0	1	0	4	0	4	0	0	0	0	4	1	5
7:30 AM - 8:30 AM	0	0	0	0	0	1	0	1	0	4	0	4	0	0	0	0	4	1	5
7:45 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4	0	4
8:00 AM - 9:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**1**	**3**
PM 15 Minute Volumes																			
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
4:30 PM - 4:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
4:45 PM - 5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
6:15 PM - 6:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	5	0	5	0	0	0	0	0	4	0	4	0	0	0	0	9	0	9
PM One Hour Volumes																			
4:00 PM - 5:00 PM	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**6**	**0**	**6**
4:15 PM - 5:15 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4	0	4
4:30 PM - 5:30 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
4:45 PM - 5:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
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	1	0	1	0	0	0	0	1	0	1
5:30 PM - 6:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2
5:45 PM - 6:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	0	2
6:00 PM - 7:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3

Wells + Associates, Inc.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: University Drive & George Mason Boulevard
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Abdul
INPUTED BY: Jose



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
AM 15 Minute Volumes													
6:00 AM - 6:15 AM	0	0	0	0	0	0	2	0					
6:15 AM - 6:30 AM	0	0	0	0	0	1	2	0					
6:30 AM - 6:45 AM	0	0	0	0	2	0	1	1					
6:45 AM - 7:00 AM	0	0	0	0	0	0	6	1					
7:00 AM - 7:15 AM	0	0	0	0	0	2	2	1					
7:15 AM - 7:30 AM	0	0	0	0	2	1	4	0					
7:30 AM - 7:45 AM	0	0	0	0	1	1	17	0					
7:45 AM - 8:00 AM	0	0	0	0	0	1	5	0					
8:00 AM - 8:15 AM	0	0	0	0	2	0	4	5					
8:15 AM - 8:30 AM	0	0	0	0	2	1	6	1					
8:30 AM - 8:45 AM	0	0	2	0	0	1	5	4					
8:45 AM - 9:00 AM	0	0	0	0	0	0	13	1					
Total	0	0	2	0	9	8	67	14					
AM One Hour Volumes													
6:00 AM - 7:00 AM	0	0	0	0	2	1	11	2	0	0	3	13	16
6:15 AM - 7:15 AM	0	0	0	0	2	3	11	3	0	0	5	14	19
6:30 AM - 7:30 AM	0	0	0	0	4	3	13	3	0	0	7	16	23
6:45 AM - 7:45 AM	0	0	0	0	3	4	29	2	0	0	7	31	38
7:00 AM - 8:00 AM	0	0	0	0	3	5	28	1	0	0	8	29	37
7:15 AM - 8:15 AM	0	0	0	0	5	3	30	5	0	0	8	35	43
7:30 AM - 8:30 AM	0	0	0	0	5	3	32	6	0	0	8	38	46
7:45 AM - 8:45 AM	0	0	2	0	4	3	20	10	0	2	7	30	39
8:00 AM - 9:00 AM	**0**	**0**	**2**	**0**	**4**	**2**	**28**	**11**	**0**	**2**	**6**	**39**	**47**
PM 15 Minute Volumes													
4:00 PM - 4:15 PM	0	0	0	0	0	0	12	1					
4:15 PM - 4:30 PM	0	0	0	0	0	0	4	13					
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	5					
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	3					
5:00 PM - 5:15 PM	0	0	0	0	0	0	2	1					
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	1					
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	2					
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	1					
6:00 PM - 6:15 PM	0	0	0	0	0	0	1	2					
6:15 PM - 6:30 PM	0	0	0	0	0	0	2	1					
6:30 PM - 6:45 PM	0	0	0	0	0	0	2	0					
6:45 PM - 7:00 PM	0	0	0	0	0	0	4	2					
Total	0	0	0	0	0	0	28	32					
PM One Hour Volumes													
4:00 PM - 5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**22**	**0**	**0**	**0**	**38**	**38**
4:15 PM - 5:15 PM	0	0	0	0	0	0	6	22	0	0	0	28	28
4:30 PM - 5:30 PM	0	0	0	0	0	0	3	10	0	0	0	13	13
4:45 PM - 5:45 PM	0	0	0	0	0	0	3	7	0	0	0	10	10
5:00 PM - 6:00 PM	0	0	0	0	0	0	3	5	0	0	0	8	8
5:15 PM - 6:15 PM	0	0	0	0	0	0	2	6	0	0	0	8	8
5:30 PM - 6:30 PM	0	0	0	0	0	0	3	6	0	0	0	9	9
5:45 PM - 6:45 PM	0	0	0	0	0	0	5	4	0	0	0	9	9
6:00 PM - 7:00 PM	0	0	0	0	0	0	9	5	0	0	0	14	14

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - All Vehicles

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: Braddock Road & Ox Road
LOCATION: Fairfax County

DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Luz, Victor & Salih
INPUTED BY: Jose

SOUTHBOUND ROAD: Ox Rd
NORTHBOUND ROAD: Ox Rd
WESTBOUND ROAD: Braddock road
EASTBOUND ROAD: Braddock road

Time Period	Southbound Ox Rd					Westbound Braddock road					Northbound Ox Rd					Eastbound Braddock road					North & South	East & West	Total
	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF	Right	Thru	Left	Total	PHF			
AM 15 Minute Volumes																							
6:00 AM - 6:15 AM	3	20	14	37		10	110	9	129		32	112	38	182		1	179	18	198		219	327	546
6:15 AM - 6:30 AM	9	26	14	49		9	132	14	155		37	184	42	263		18	246	32	296		312	451	763
6:30 AM - 6:45 AM	14	36	18	68		18	178	25	221		51	225	53	329		31	282	31	344		397	565	962
6:45 AM - 7:00 AM	19	43	28	90		37	161	9	207		54	236	81	371		26	296	45	367		461	574	1035
7:00 AM - 7:15 AM	35	66	23	124		42	214	7	263		60	313	125	498		26	276	58	360		622	623	1245
7:15 AM - 7:30 AM	32	69	25	126		41	242	16	299		65	289	98	452		25	292	57	374		578	673	1251
7:30 AM - 7:45 AM	52	59	36	147		54	214	12	280		55	245	126	426		14	280	74	368		573	648	1221
7:45 AM - 8:00 AM	82	72	43	197		57	281	13	351		24	321	181	526		38	270	8	316		723	667	1390
8:00 AM - 8:15 AM	47	82	38	167		38	268	7	313		25	306	139	470		39	270	0	309		637	622	1259
8:15 AM - 8:30 AM	35	56	29	120		52	249	9	310		44	269	165	478		29	294	73	396		598	706	1304
8:30 AM - 8:45 AM	48	42	22	112		38	226	20	284		38	301	139	478		28	284	112	424		590	708	1298
8:45 AM - 9:00 AM	46	69	42	157		58	220	12	290		39	332	106	477		22	265	113	400		634	690	1324
Total	422	640	332	1394		454	2495	153	3102		524	3133	1293	4950		297	3234	621	4152		6344	7254	13598
AM One Hour Volumes																							
6:00 AM - 7:00 AM	45	125	74	244	0.68	74	581	57	712	0.81	174	757	214	1145	0.77	76	1003	126	1205	0.82	1389	1917	3306
6:15 AM - 7:15 AM	77	171	83	331	0.67	106	685	55	846	0.80	202	958	301	1461	0.73	101	1100	166	1367	0.93	1792	2213	4005
6:30 AM - 7:30 AM	100	214	94	408	0.81	138	795	57	990	0.83	230	1063	357	1650	0.83	108	1146	191	1445	0.97	2058	2435	4493
6:45 AM - 7:45 AM	138	237	112	487	0.83	174	831	44	1049	0.88	234	1083	430	1747	0.88	91	1144	234	1469	0.98	2234	2518	4752
7:00 AM - 8:00 AM	201	266	127	594	0.75	194	951	48	1193	0.85	204	1168	530	1902	0.90	103	1118	197	1418	0.95	2496	2611	5107
7:15 AM - 8:15 AM	213	282	142	637	0.81	190	1005	48	1243	0.89	169	1161	544	1874	0.89	116	1112	139	1367	0.91	2511	2610	5121
7:30 AM - 8:30 AM	216	269	146	631	0.80	201	1012	41	1254	0.89	148	1141	611	1900	0.90	120	1114	155	1389	0.88	2531	2643	5174
7:45 AM - 8:45 AM	**212**	**252**	**132**	**596**	**0.76**	**185**	**1024**	**49**	**1258**	**0.90**	**131**	**1197**	**624**	**1952**	**0.93**	**134**	**1118**	**193**	**1445**	**0.85**	**2548**	**2703**	**5251**
8:00 AM - 9:00 AM	176	249	131	556	0.83	186	963	48	1197	0.96	146	1208	549	1903	1.00	118	1113	298	1529	0.90	2459	2726	5185
PM 15 Minute Volumes																							
4:00 PM - 4:15 PM	72	172	63	307		38	325	34	397		75	104	57	236		131	278	66	475		543	872	1415
4:15 PM - 4:30 PM	99	196	62	357		38	380	62	480		57	108	95	260		188	231	37	456		617	936	1553
4:30 PM - 4:45 PM	79	236	55	370		34	314	60	408		40	123	59	222		193	248	37	478		592	886	1478
4:45 PM - 5:00 PM	70	197	31	298		26	318	58	402		36	105	78	219		204	276	26	506		517	908	1425
5:00 PM - 5:15 PM	66	186	26	278		22	371	61	454		42	105	86	233		192	281	29	502		511	956	1467
5:15 PM - 5:30 PM	66	203	33	302		31	336	57	424		32	147	71	250		190	263	15	468		552	892	1444
5:30 PM - 5:45 PM	62	204	36	302		21	370	60	451		41	115	89	245		189	299	49	537		547	988	1535
5:45 PM - 6:00 PM	54	172	20	246		26	392	59	477		35	119	81	235		201	292	32	525		481	1002	1483
6:00 PM - 6:15 PM	71	162	49	282		31	323	60	414		35	118	68	221		161	236	43	440		503	854	1357
6:15 PM - 6:30 PM	68	212	44	324		22	303	52	377		43	124	68	235		160	226	58	444		559	821	1380
6:30 PM - 6:45 PM	77	177	42	296		33	341	41	415		34	116	59	209		157	260	50	467		505	882	1387
6:45 PM - 7:00 PM	71	161	67	299		41	334	58	433		63	117	63	243		97	221	82	400		542	833	1375
Total	855	2278	528	3661		363	4107	662	5132		533	1401	874	2808		2063	3111	524	5698		6469	10830	17299
PM One Hour Volumes																							
4:00 PM - 5:00 PM	320	801	211	1332	0.90	136	1337	214	1687	0.88	208	440	289	937	0.90	716	1033	166	1915	0.95	2269	3602	5871
4:15 PM - 5:15 PM	314	815	174	1303	0.88	120	1383	241	1744	0.91	175	441	318	934	0.90	777	1036	129	1942	0.96	2237	3686	5923
4:30 PM - 5:30 PM	281	822	145	1248	0.84	113	1339	236	1688	0.93	150	480	294	924	0.92	779	1068	107	1954	0.97	2172	3642	5814
4:45 PM - 5:45 PM	264	790	126	1180	0.98	100	1395	236	1731	0.95	151	472	324	947	0.95	775	1119	119	2013	0.94	2127	3744	5871
5:00 PM - 6:00 PM	**248**	**765**	**115**	**1128**	**0.93**	**100**	**1469**	**237**	**1806**	**0.95**	**150**	**486**	**327**	**963**	**0.96**	**772**	**1135**	**125**	**2032**	**0.95**	**2091**	**3838**	**5929**
5:15 PM - 6:15 PM	253	741	138	1132	0.94	109	1421	236	1766	0.93	143	499	309	951	0.95	741	1090	139	1970	0.92	2083	3736	5819
5:30 PM - 6:30 PM	255	750	149	1154	0.89	100	1388	231	1719	0.90	154	476	306	936	0.96	711	1053	182	1946	0.91	2090	3665	5755
5:45 PM - 6:45 PM	270	723	155	1148	0.89	112	1359	212	1683	0.88	147	477	276	900	0.96	679	1014	183	1876	0.89	2048	3559	5607
6:00 PM - 7:00 PM	287	712	202	1201	0.93	127	1301	211	1639	0.95	175	475	258	908	0.93	575	943	233	1751	0.94	2109	3390	5499

Wells + Associates, Inc.

McLean, Virginia

Turning Movement Count - Bicycles

PROJECT:	One University	**DATE:**	11/14/2017	**SOUTHBOUND ROAD:**	Ox Rd
W+A JOB NO:	7379	**DAY:**	Tuesday	**NORTHBOUND ROAD:**	Ox Rd
INTERSECTION:	Braddock Road & Ox Road	**WEATHER:**	clear	**WESTBOUND ROAD:**	Braddock road
LOCATION:	Fairfax County	**COUNTED BY:**	Victor	**EASTBOUND ROAD:**	Braddock road
		INPUTED BY:	Jose		

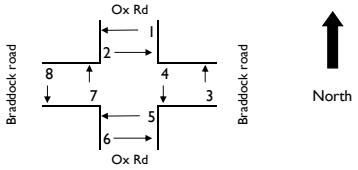
Time Period	Southbound Ox Rd				Westbound Braddock road				Northbound Ox Rd				Eastbound Braddock road				North & South	East & West	Total
	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total			
AM 15 Minute Volumes																			
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
AM One Hour Volumes																			
6:00 AM - 7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:15 AM - 7:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	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**	**0**	**0**	**0**	**0**	**0**	**0**
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
PM 15 Minute Volumes																			
4:00 PM - 4:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1
5:15 PM - 5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5	0	5
PM One Hour Volumes																			
4:00 PM - 5:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
4:15 PM - 5:15 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3	0	3
4:30 PM - 5:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
4:45 PM - 5:45 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3	0	3
5:00 PM - 6:00 PM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
5:15 PM - 6:15 PM	0	1	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.

McLean, Virginia

Pedestrian Volume Survey

PROJECT: One University
W+A JOB NO: 7379
INTERSECTION: Braddock Road & Ox Road
LOCATION: Fairfax County
DATE: 11/14/2017
DAY: Tuesday
WEATHER: clear
COUNTED BY: Luz
INPUTED BY: Jose



Time Period	Movement 1	2	3	4	5	6	7	8	1 + 2	3 + 4	5 + 6	7+ 8	Total
AM 15 Minute Volumes													
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	0					
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	0					
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	0					
6:45 AM - 7:00 AM	0	0	1	0	0	0	0	0					
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0					
7:15 AM - 7:30 AM	0	0	1	0	0	0	0	0					
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0					
7:45 AM - 8:00 AM	0	0	1	1	2	1	2	2					
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	2					
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0					
8:30 AM - 8:45 AM	0	0	1	0	0	0	4	0					
8:45 AM - 9:00 AM	0	0	0	1	0	0	0	0					
Total	0	0	4	2	2	1	6	4					
AM One Hour Volumes													
6:00 AM - 7:00 AM	0	0	1	0	0	0	0	0	0	1	0	0	1
6:15 AM - 7:15 AM	0	0	1	0	0	0	0	0	0	1	0	0	1
6:30 AM - 7:30 AM	0	0	2	0	0	0	0	0	0	2	0	0	2
6:45 AM - 7:45 AM	0	0	2	0	0	0	0	0	0	2	0	0	2
7:00 AM - 8:00 AM	0	0	2	1	2	1	2	2	0	3	3	4	10
7:15 AM - 8:15 AM	0	0	2	1	2	1	2	4	0	3	3	6	12
7:30 AM - 8:30 AM	0	0	1	1	2	1	2	4	0	2	3	6	11
7:45 AM - 8:45 AM	**0**	**0**	**2**	**1**	**2**	**1**	**6**	**4**	**0**	**3**	**3**	**10**	**16**
8:00 AM - 9:00 AM	0	0	1	1	0	0	4	2	0	2	0	6	8
PM 15 Minute Volumes													
4:00 PM - 4:15 PM	0	0	0	1	0	0	0	0					
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0					
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0					
4:45 PM - 5:00 PM	0	0	0	1	0	0	0	0					
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0					
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0					
5:30 PM - 5:45 PM	0	0	0	1	0	0	0	0					
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0					
6:00 PM - 6:15 PM	0	0	0	0	0	0	0	0					
6:15 PM - 6:30 PM	0	0	0	0	0	0	0	0					
6:30 PM - 6:45 PM	0	0	0	0	0	0	0	0					
6:45 PM - 7:00 PM	0	0	0	0	0	0	0	0					
Total	0	0	0	3	0	0	0	0					
PM One Hour Volumes													
4:00 PM - 5:00 PM	0	0	0	2	0	0	0	0	0	2	0	0	2
4:15 PM - 5:15 PM	0	0	0	1	0	0	0	0	0	1	0	0	1
4:30 PM - 5:30 PM	0	0	0	1	0	0	0	0	0	1	0	0	1
4:45 PM - 5:45 PM	0	0	0	2	0	0	0	0	0	2	0	0	2
5:00 PM - 6:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
5:15 PM - 6:15 PM	0	0	0	1	0	0	0	0	0	1	0	0	1
5:30 PM - 6:30 PM	0	0	0	1	0	0	0	0	0	1	0	0	1
5:45 PM - 6:45 PM	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

APPENDIX E
EXISTING CONDITIONS SYNCHRO WORKSHEETS

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	15	36	28	3	1262	29	679
v/c Ratio	0.39	0.05	0.30	0.12	0.00	0.44	0.08	0.24
Control Delay	66.1	0.4	63.8	1.0	2.7	6.4	2.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	66.1	0.4	63.8	1.0	2.7	6.6	2.8	3.4
Queue Length 50th (ft)	51	0	31	0	0	203	3	49
Queue Length 95th (ft)	89	0	66	0	2	297	10	124
Internal Link Dist (ft)	1279		1144			653		518
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	160	295	316	447	696	2853	398	2880
Starvation Cap Reductn	0	0	0	0	0	785	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.05	0.11	0.06	0.00	0.61	0.07	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	29	13	25	8	26	3	1195	42	25	568	16
Future Volume (vph)	20	29	13	25	8	26	3	1195	42	25	568	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1798	1583		1672	1467	1765	3517		1735	3396	
Flt Permitted		0.85	1.00		0.74	1.00	0.39	1.00		0.19	1.00	
Satd. Flow (perm)		1558	1583		1288	1467	731	3517		343	3396	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.98	0.98	0.98	0.86	0.86	0.86
Adj. Flow (vph)	24	34	15	27	9	28	3	1219	43	29	660	19
RTOR Reduction (vph)	0	0	14	0	0	26	0	1	0	0	1	0
Lane Group Flow (vph)	0	58	1	0	36	2	3	1261	0	29	678	0
Confl. Peds. (#/hr)	2					2	5		3	3		5
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	5%	2%	2%	12%	2%	8%	2%	2%	2%	4%	5%	31%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		10.0	10.0		10.0	10.0	107.8	106.7		113.0	109.3	
Effective Green, g (s)		12.0	12.0		12.0	12.0	111.8	108.7		117.0	111.3	
Actuated g/C Ratio		0.09	0.09		0.09	0.09	0.80	0.78		0.84	0.79	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		133	135		110	125	606	2730		343	2699	
v/s Ratio Prot							0.00	c0.36		c0.00	0.20	
v/s Ratio Perm		c0.04	0.00		0.03	0.00	0.00			0.07		
v/c Ratio		0.44	0.01		0.33	0.02	0.00	0.46		0.08	0.25	
Uniform Delay, d1		60.8	58.6		60.2	58.6	2.8	5.5		3.0	3.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.3	0.0		1.7	0.1	0.0	0.6		0.1	0.2	
Delay (s)		63.1	58.6		61.9	58.7	2.8	6.0		3.1	3.9	
Level of Service		E	E		E	E	A	A		A	A	
Approach Delay (s)		62.1			60.5			6.0			3.9	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	115	15	1	108	12	1
Future Vol, veh/h	115	15	1	108	12	1
Conflicting Peds, #/hr	1	4	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	6	2	2	4	11	2
Mvmt Flow	135	18	1	127	14	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	95	69	0	0	128	0
Stage 1	65	-	-	-	-	-
Stage 2	30	-	-	-	-	-
Critical Hdwy	6.46	6.22	-	-	4.21	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.318	-	-	2.299	-
Pot Cap-1 Maneuver	895	994	-	-	1404	-
Stage 1	948	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	885	990	-	-	1404	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	896	1404	-
HCM Lane V/C Ratio	-	-	0.171	0.01	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	119	127	4	6	3
Future Vol, veh/h	1	119	127	4	6	3
Conflicting Peds, #/hr	17	0	0	17	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	89	89	85	85
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	1	140	143	4	7	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	164	0	-	0	304	162
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1414	-	-	-	688	883
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1391	-	-	-	665	869
Mov Cap-2 Maneuver	-	-	-	-	665	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	871	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1391	-	-	-	721
HCM Lane V/C Ratio	0.001	-	-	-	0.015
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	125	131	0	0	0
Future Vol, veh/h	0	125	131	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	147	154	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	154	0	-	0	301	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1426	-	-	-	691	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1426	-	-	-	691	892
Mov Cap-2 Maneuver	-	-	-	-	691	-
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	880	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1426	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	116	5	7	123	6	3	1	2	6	1	5
Future Vol, veh/h	5	116	5	7	123	6	3	1	2	6	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	3	2	2	2	2	2	2	2
Mvmt Flow	6	136	6	8	145	7	4	1	2	7	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	152	0	0	142	0	0	319	319	139	318	319	149
Stage 1	-	-	-	-	-	-	151	151	-	165	165	-
Stage 2	-	-	-	-	-	-	168	168	-	153	154	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1429	-	-	1441	-	-	634	598	909	635	598	898
Stage 1	-	-	-	-	-	-	851	772	-	837	762	-
Stage 2	-	-	-	-	-	-	834	759	-	849	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1441	-	-	624	591	909	627	591	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	624	591	-	627	591	-
Stage 1	-	-	-	-	-	-	847	768	-	833	757	-
Stage 2	-	-	-	-	-	-	822	754	-	841	766	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	10.3	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	690	1429	-	-	1441	-	-	713
HCM Lane V/C Ratio	0.01	0.004	-	-	0.006	-	-	0.02
HCM Control Delay (s)	10.3	7.5	0	-	7.5	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	119	5	17	135	0	1	0	10	4	0	0
Future Vol, veh/h	0	119	5	17	135	0	1	0	10	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	140	6	20	159	0	1	0	12	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	146	0	0	342	342	143	348	345	159
Stage 1	-	-	-	-	-	-	143	143	-	199	199	-
Stage 2	-	-	-	-	-	-	199	199	-	149	146	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1436	-	-	612	580	905	607	578	886
Stage 1	-	-	-	-	-	-	860	779	-	803	736	-
Stage 2	-	-	-	-	-	-	803	736	-	854	776	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1420	-	-	1436	-	-	605	571	905	592	569	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	605	571	-	592	569	-
Stage 1	-	-	-	-	-	-	860	779	-	803	725	-
Stage 2	-	-	-	-	-	-	791	725	-	843	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	9.2	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	866	1420	-	-	1436	-	-	592
HCM Lane V/C Ratio	0.015	-	-	-	0.014	-	-	0.008
HCM Control Delay (s)	9.2	0	-	-	7.5	0	-	11.1
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	129	4	103	152	4	0	0	48	8	0	0
Future Vol, veh/h	0	129	4	103	152	4	0	0	48	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	152	5	121	179	5	0	0	56	9	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	184	0	0	157	0	0	579	581	155	607	581	182
Stage 1	-	-	-	-	-	-	155	155	-	424	424	-
Stage 2	-	-	-	-	-	-	424	426	-	183	157	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1391	-	-	1423	-	-	426	425	891	408	425	861
Stage 1	-	-	-	-	-	-	847	769	-	608	587	-
Stage 2	-	-	-	-	-	-	608	586	-	819	768	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1391	-	-	1423	-	-	395	385	891	355	385	861
Mov Cap-2 Maneuver	-	-	-	-	-	-	395	385	-	355	385	-
Stage 1	-	-	-	-	-	-	847	769	-	608	531	-
Stage 2	-	-	-	-	-	-	550	530	-	767	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.1	9.3	15.4
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	891	1391	-	-	1423	-	-	355
HCM Lane V/C Ratio	0.063	-	-	-	0.085	-	-	0.027
HCM Control Delay (s)	9.3	0	-	-	7.8	0	-	15.4
HCM Lane LOS	A	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	184	257	3	5	2
Future Vol, veh/h	1	184	257	3	5	2
Conflicting Peds, #/hr	5	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	216	302	4	6	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	311	0	-	0	527	309
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1249	-	-	-	512	731
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	506	728
Mov Cap-2 Maneuver	-	-	-	-	506	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1243	-	-	-	554
HCM Lane V/C Ratio	0.001	-	-	-	0.015
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	173	137	94	181	1229	457	348	494	69
v/c Ratio	0.14	0.55	0.40	0.22	0.38	0.91	0.61	0.86	0.30	0.09
Control Delay	40.7	60.7	45.4	37.2	20.4	62.0	25.0	74.0	26.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	60.7	45.4	37.2	20.4	62.0	25.0	74.0	26.6	0.2
Queue Length 50th (ft)	39	154	115	60	92	742	221	350	180	0
Queue Length 95th (ft)	69	229	165	110	142	#922	365	#503	225	0
Internal Link Dist (ft)		182		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	404	362	389	470	499	1351	745	414	1670	811
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.48	0.35	0.20	0.36	0.91	0.61	0.84	0.30	0.09

Intersection Summary

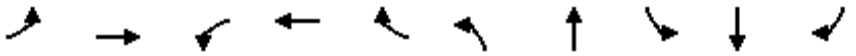
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	70	77	118	38	43	163	1106	411	299	425	59
Future Volume (veh/h)	42	70	77	118	38	43	163	1106	411	299	425	59
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.90	0.96		0.93	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1790	1900	1827	1770	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	49	82	91	137	44	50	181	1229	457	348	494	69
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.86	0.86	0.86	0.90	0.90	0.90	0.86	0.86	0.86
Percent Heavy Veh, %	5	3	3	4	2	2	4	4	2	4	11	5
Cap, veh/h	372	164	182	332	193	219	518	1377	623	386	1618	757
Arrive On Green	0.04	0.23	0.23	0.08	0.27	0.27	0.09	0.40	0.40	0.19	0.50	0.50
Sat Flow, veh/h	1723	729	809	1740	725	824	1740	3471	1571	1740	3252	1523
Grp Volume(v), veh/h	49	0	173	137	0	94	181	1229	457	348	494	69
Grp Sat Flow(s),veh/h/ln	1723	0	1538	1740	0	1550	1740	1736	1571	1740	1626	1523
Q Serve(g_s), s	3.5	0.0	16.2	9.6	0.0	7.8	9.9	54.6	40.8	26.2	14.9	3.9
Cycle Q Clear(g_c), s	3.5	0.0	16.2	9.6	0.0	7.8	9.9	54.6	40.8	26.2	14.9	3.9
Prop In Lane	1.00		0.53	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	372	0	346	332	0	412	518	1377	623	386	1618	757
V/C Ratio(X)	0.13	0.00	0.50	0.41	0.00	0.23	0.35	0.89	0.73	0.90	0.31	0.09
Avail Cap(c_a), veh/h	476	0	354	472	0	451	549	1409	638	452	1714	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.6	0.0	55.8	42.5	0.0	47.3	24.8	46.5	42.4	50.7	24.6	21.8
Incr Delay (d2), s/veh	0.2	0.0	1.1	0.6	0.0	0.3	0.3	7.7	4.6	18.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	7.0	4.6	0.0	3.4	4.8	27.6	18.6	17.5	6.7	1.7
LnGrp Delay(d),s/veh	45.7	0.0	57.0	43.1	0.0	47.6	25.1	54.2	47.0	69.3	24.7	21.9
LnGrp LOS	D		E	D		D	C	D	D	E	C	C
Approach Vol, veh/h		222			231			1867			911	
Approach Delay, s/veh		54.5			44.9			49.6			41.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	86.0	12.1	49.0	34.6	69.4	18.9	42.3
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	15.0	85.0	* 15	* 46	35.0	65.0	* 25	* 36
Max Q Clear Time (g_c+I1), s	11.9	16.9	5.5	9.8	28.2	56.6	11.6	18.2
Green Ext Time (p_c), s	0.1	6.1	0.0	0.6	0.5	6.9	0.2	1.0

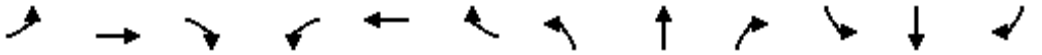
Intersection Summary	
HCM 2010 Ctrl Delay	47.3
HCM 2010 LOS	D

Notes



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	188	313	13	69	84	26	65	160	129	72
v/c Ratio	0.27	0.36	0.03	0.15	0.12	0.07	0.23	0.31	0.23	0.09
Control Delay	14.1	17.8	14.2	27.7	2.4	14.5	27.4	16.4	21.2	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	17.8	14.2	27.7	2.4	14.5	27.4	16.4	21.2	2.8
Queue Length 50th (ft)	43	76	3	24	0	7	24	47	37	0
Queue Length 95th (ft)	114	236	14	68	14	21	58	87	93	16
Internal Link Dist (ft)		900		741			229		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	824	1611	573	1377	908	597	704	662	841	1092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.19	0.02	0.05	0.09	0.04	0.09	0.24	0.15	0.07

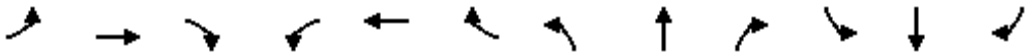
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	234	41	11	59	71	22	46	9	136	110	61
Future Volume (veh/h)	165	234	41	11	59	71	22	46	9	136	110	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	0.96		0.90	0.94		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1855	1900	1863	1863	1792	1610	1555	1900	1827	1810	1863
Adj Flow Rate, veh/h	188	266	47	13	69	84	26	54	11	160	129	72
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	6	18	20	20	4	5	2
Cap, veh/h	615	512	91	403	473	568	456	305	62	591	555	676
Arrive On Green	0.13	0.33	0.33	0.05	0.25	0.25	0.07	0.25	0.25	0.13	0.31	0.31
Sat Flow, veh/h	1774	1533	271	1774	1863	1473	1533	1228	250	1740	1810	1523
Grp Volume(v), veh/h	188	0	313	13	69	84	26	0	65	160	129	72
Grp Sat Flow(s),veh/h/ln	1774	0	1804	1774	1863	1473	1533	0	1478	1740	1810	1523
Q Serve(g_s), s	4.7	0.0	9.5	0.3	2.0	2.5	0.8	0.0	2.4	4.1	3.6	1.9
Cycle Q Clear(g_c), s	4.7	0.0	9.5	0.3	2.0	2.5	0.8	0.0	2.4	4.1	3.6	1.9
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	615	0	603	403	473	568	456	0	367	591	555	676
V/C Ratio(X)	0.31	0.00	0.52	0.03	0.15	0.15	0.06	0.00	0.18	0.27	0.23	0.11
Avail Cap(c_a), veh/h	1084	0	1776	624	1423	1320	845	0	695	932	851	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	18.2	16.6	19.7	13.8	16.1	0.0	20.1	13.5	17.6	11.3
Incr Delay (d2), s/veh	0.3	0.0	0.7	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.8	0.2	1.0	1.0	0.3	0.0	1.0	2.0	1.8	0.8
LnGrp Delay(d),s/veh	13.4	0.0	18.9	16.7	19.8	13.9	16.2	0.0	20.3	13.8	17.8	11.3
LnGrp LOS	B		B	B	B	B	B		C	B	B	B
Approach Vol, veh/h		501			166			91			361	
Approach Delay, s/veh		16.9			16.6			19.1			14.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	26.7	8.8	25.0	13.0	21.3	12.8	21.0
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	11.5	2.8	5.6	6.7	4.5	6.1	4.4
Green Ext Time (p_c), s	0.0	2.3	0.0	1.0	0.5	0.7	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	1328	159	54	1149	208	677	1300	142	156	300	252
v/c Ratio	0.58	0.88	0.16	0.50	0.94	0.26	1.06	1.17	0.23	0.76	0.46	0.49
Control Delay	68.6	48.2	1.4	84.2	62.9	9.5	108.9	130.5	1.0	92.6	56.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	48.2	1.4	84.2	62.9	9.5	108.9	130.5	1.0	92.6	56.5	6.9
Queue Length 50th (ft)	111	647	0	52	574	37	~372	~793	0	78	138	0
Queue Length 95th (ft)	143	689	16	101	#766	95	#499	#934	1	#121	177	36
Internal Link Dist (ft)		1034			836			765			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	524	1506	971	109	1217	795	640	1113	631	204	651	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.88	0.16	0.50	0.94	0.26	1.06	1.17	0.23	0.76	0.46	0.49

Intersection Summary

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	1129	135	49	1034	187	630	1209	132	133	255	214
Future Volume (veh/h)	195	1129	135	49	1034	187	630	1209	132	133	255	214
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1845	1810	1827	1845	1845	1863	1863	1845	1810	1792	1827
Adj Flow Rate, veh/h	229	1328	159	54	1149	208	677	1300	142	156	300	252
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85
Percent Heavy Veh, %	2	3	5	4	3	3	2	2	3	5	6	4
Cap, veh/h	325	1428	912	104	1279	667	642	1114	489	205	663	298
Arrive On Green	0.09	0.41	0.41	0.06	0.36	0.36	0.19	0.31	0.31	0.06	0.19	0.19
Sat Flow, veh/h	3442	3505	1535	1740	3505	1564	3442	3539	1553	3343	3406	1529
Grp Volume(v), veh/h	229	1328	159	54	1149	208	677	1300	142	156	300	252
Grp Sat Flow(s),veh/h/ln	1721	1752	1535	1740	1752	1564	1721	1770	1553	1672	1703	1529
Q Serve(g_s), s	9.7	54.2	3.6	4.5	46.5	13.2	28.0	47.2	7.8	6.9	11.7	23.8
Cycle Q Clear(g_c), s	9.7	54.2	3.6	4.5	46.5	13.2	28.0	47.2	7.8	6.9	11.7	23.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	1428	912	104	1279	667	642	1114	489	205	663	298
V/C Ratio(X)	0.70	0.93	0.17	0.52	0.90	0.31	1.05	1.17	0.29	0.76	0.45	0.85
Avail Cap(c_a), veh/h	525	1428	912	110	1279	667	642	1114	489	205	663	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	65.9	42.4	4.5	68.4	45.0	28.5	61.0	51.4	22.3	69.3	53.3	58.2
Incr Delay (d2), s/veh	2.8	12.1	0.4	3.9	10.2	1.2	50.5	85.2	0.5	14.7	0.7	19.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	28.6	2.1	2.3	24.3	5.9	17.8	36.2	4.0	3.6	5.6	11.7
LnGrp Delay(d),s/veh	68.7	54.5	4.9	72.3	55.2	29.7	111.5	136.6	22.8	84.0	54.0	77.9
LnGrp LOS	E	D	A	E	E	C	F	F	C	F	D	E
Approach Vol, veh/h		1716			1411			2119			708	
Approach Delay, s/veh		51.8			52.1			121.0			69.1	
Approach LOS		D			D			F			E	

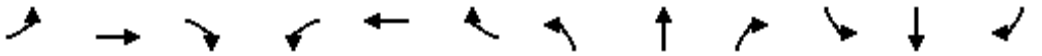
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	33.5	16.5	65.0	17.0	51.5	19.3	62.2
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 26	26.7	7.5	59.1	7.2	* 45	20.9	44.5
Max Q Clear Time (g_c+I1), s	30.0	25.8	6.5	56.2	8.9	49.2	11.7	48.5
Green Ext Time (p_c), s	0.0	0.3	0.0	2.4	0.0	0.0	0.5	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.6
HCM 2010 LOS	E

Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	30	14	79	38	17	797	32	1380
v/c Ratio	0.12	0.04	0.34	0.11	0.06	0.32	0.06	0.54
Control Delay	46.4	0.2	53.0	0.7	6.0	9.6	5.7	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	0.2	53.0	0.7	6.0	9.6	5.7	11.6
Queue Length 50th (ft)	24	0	64	0	3	145	6	220
Queue Length 95th (ft)	47	0	99	0	12	235	19	502
Internal Link Dist (ft)	1279		1144			653		612
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	262	382	344	443	326	2506	533	2539
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.04	0.23	0.09	0.05	0.32	0.06	0.54

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	12	12	45	22	32	15	690	27	29	1244	12
Future Volume (vph)	14	12	12	45	22	32	15	690	27	29	1244	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.99		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1811	1562		1723	1459	1770	3512		1765	3463	
Flt Permitted		0.85	1.00		0.79	1.00	0.15	1.00		0.32	1.00	
Satd. Flow (perm)		1581	1562		1403	1459	282	3512		586	3463	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	16	14	14	53	26	38	17	767	30	32	1367	13
RTOR Reduction (vph)	0	0	12	0	0	32	0	1	0	0	0	0
Lane Group Flow (vph)	0	30	2	0	79	6	17	796	0	32	1380	0
Confl. Peds. (#/hr)	2					2	26		9	9		26
Confl. Bikes (#/hr)			1						1			2
Heavy Vehicles (%)	2%	2%	2%	9%	2%	9%	2%	2%	2%	2%	4%	2%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		21.1	21.1		21.1	21.1	97.9	95.4		100.7	96.8	
Effective Green, g (s)		23.1	23.1		23.1	23.1	101.9	97.4		104.7	98.8	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.73	0.70		0.75	0.71	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		260	257		231	240	253	2443		487	2443	
v/s Ratio Prot							0.00	0.23		c0.00	c0.40	
v/s Ratio Perm		0.02	0.00		c0.06	0.00	0.05			0.05		
v/c Ratio		0.12	0.01		0.34	0.03	0.07	0.33		0.07	0.56	
Uniform Delay, d1		49.8	48.9		51.7	49.0	7.0	8.4		4.9	10.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2	0.0		0.9	0.0	0.1	0.4		0.1	1.0	
Delay (s)		50.0	48.9		52.6	49.1	7.2	8.7		5.0	11.0	
Level of Service		D	D		D	D	A	A		A	B	
Approach Delay (s)		49.6			51.5			8.7			10.9	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	173	25	5	112	22	0
Future Vol, veh/h	173	25	5	112	22	0
Conflicting Peds, #/hr	0	9	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	85	85	85	85
Heavy Vehicles, %	6	6	20	3	2	2
Mvmt Flow	192	28	6	132	26	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	126	83	0	0	140	0
Stage 1	74	-	-	-	-	-
Stage 2	52	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	859	965	-	-	1443	-
Stage 1	939	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	842	955	-	-	1440	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	7.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	855	1440	-
HCM Lane V/C Ratio	-	-	0.257	0.018	-
HCM Control Delay (s)	-	-	10.7	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	128	194	15	5	4
Future Vol, veh/h	6	128	194	15	5	4
Conflicting Peds, #/hr	48	0	0	48	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	88	88	85	85
Heavy Vehicles, %	2	3	2	7	2	2
Mvmt Flow	7	151	220	17	6	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	285	0	-	0	442	277
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	165	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1277	-	-	-	573	762
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1219	-	-	-	519	727
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	824	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1219	-	-	-	595
HCM Lane V/C Ratio	0.006	-	-	-	0.018
HCM Control Delay (s)	8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	133	209	0	0	0
Future Vol, veh/h	0	133	209	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	156	246	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	246	0	-	0	402	246
Stage 1	-	-	-	-	246	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1320	-	-	-	604	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1320	-	-	-	604	793
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	872	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1320	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	128	1	6	204	7	4	0	28	5	0	1
Future Vol, veh/h	4	128	1	6	204	7	4	0	28	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	89	89	89	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	151	1	7	229	8	5	0	33	6	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	237	0	0	152	0	0	410	413	152	425	409	233
Stage 1	-	-	-	-	-	-	162	162	-	247	247	-
Stage 2	-	-	-	-	-	-	248	251	-	178	162	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1330	-	-	1429	-	-	552	529	894	540	532	806
Stage 1	-	-	-	-	-	-	840	764	-	757	702	-
Stage 2	-	-	-	-	-	-	756	699	-	824	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1330	-	-	1429	-	-	547	524	894	516	527	806
Mov Cap-2 Maneuver	-	-	-	-	-	-	547	524	-	516	527	-
Stage 1	-	-	-	-	-	-	837	761	-	754	698	-
Stage 2	-	-	-	-	-	-	750	695	-	790	761	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	9.6	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	828	1330	-	-	1429	-	-	549
HCM Lane V/C Ratio	0.045	0.004	-	-	0.005	-	-	0.013
HCM Control Delay (s)	9.6	7.7	0	-	7.5	0	-	11.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	157	1	7	210	1	1	0	18	3	0	6
Future Vol, veh/h	3	157	1	7	210	1	1	0	18	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	185	1	8	247	1	1	0	21	4	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	186	0	0	461	458	186	468	458	248
Stage 1	-	-	-	-	-	-	194	194	-	264	264	-
Stage 2	-	-	-	-	-	-	267	264	-	204	194	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1318	-	-	1388	-	-	511	499	856	505	499	791
Stage 1	-	-	-	-	-	-	808	740	-	741	690	-
Stage 2	-	-	-	-	-	-	738	690	-	798	740	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1388	-	-	503	494	856	489	494	791
Mov Cap-2 Maneuver	-	-	-	-	-	-	503	494	-	489	494	-
Stage 1	-	-	-	-	-	-	806	738	-	739	685	-
Stage 2	-	-	-	-	-	-	726	685	-	776	738	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	9.5	10.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	826	1318	-	-	1388	-	-	656
HCM Lane V/C Ratio	0.027	0.003	-	-	0.006	-	-	0.016
HCM Control Delay (s)	9.5	7.7	0	-	7.6	0	-	10.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	173	1	57	213	5	1	0	86	1	0	4
Future Vol, veh/h	4	173	1	57	213	5	1	0	86	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	92	93	93	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	204	1	62	229	5	1	0	101	1	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	205	0	0	573	573	205	621	571	232
Stage 1	-	-	-	-	-	-	215	215	-	356	356	-
Stage 2	-	-	-	-	-	-	358	358	-	265	215	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1333	-	-	1366	-	-	430	430	836	400	431	807
Stage 1	-	-	-	-	-	-	787	725	-	661	629	-
Stage 2	-	-	-	-	-	-	660	628	-	740	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1366	-	-	409	406	836	337	407	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	409	406	-	337	407	-
Stage 1	-	-	-	-	-	-	784	722	-	658	596	-
Stage 2	-	-	-	-	-	-	622	595	-	648	722	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	10	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	826	1333	-	-	1366	-	-	631
HCM Lane V/C Ratio	0.124	0.004	-	-	0.045	-	-	0.009
HCM Control Delay (s)	10	7.7	0	-	7.8	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

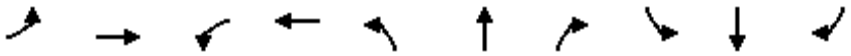
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	260	275	2	3	0
Future Vol, veh/h	0	260	275	2	3	0
Conflicting Peds, #/hr	12	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	306	324	2	4	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	338	0	-	0	643	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1221	-	-	-	438	705
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1207	-	-	-	428	697
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	739	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1207	-	-	-	428
HCM Lane V/C Ratio	-	-	-	-	0.008
HCM Control Delay (s)	0	-	-	-	13.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	260	444	192	147	659	223	184	1135	75
v/c Ratio	0.14	0.76	0.96	0.30	0.73	0.51	0.31	0.52	0.86	0.12
Control Delay	30.1	58.5	68.7	31.4	95.5	20.6	1.4	29.4	55.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0
Total Delay	30.1	58.5	68.7	31.4	95.5	20.6	1.4	29.4	59.6	0.4
Queue Length 50th (ft)	31	198	363	118	118	276	0	113	618	0
Queue Length 95th (ft)	56	288	#506	178	202	336	0	166	725	0
Internal Link Dist (ft)		182		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	393	341	463	637	226	1299	715	391	1325	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	122	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.76	0.96	0.30	0.65	0.51	0.31	0.47	0.94	0.12

Intersection Summary

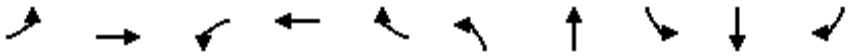
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	58	163	377	69	94	138	619	210	171	1056	70
Future Volume (veh/h)	42	58	163	377	69	94	138	619	210	171	1056	70
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.78		0.71	1.00		0.82	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1836	1900	1863	1832	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	49	68	192	444	81	111	147	659	223	184	1135	75
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	2	2	2	5	5	2	4	5	2
Cap, veh/h	315	72	205	405	231	317	219	1345	601	344	1388	609
Arrive On Green	0.04	0.22	0.22	0.19	0.37	0.37	0.07	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	1723	325	918	1774	617	846	1723	3438	1536	1740	3438	1508
Grp Volume(v), veh/h	49	0	260	444	0	192	147	659	223	184	1135	75
Grp Sat Flow(s),veh/h/ln	1723	0	1243	1774	0	1464	1723	1719	1536	1740	1719	1508
Q Serve(g_s), s	3.7	0.0	34.9	32.9	0.0	16.1	8.5	24.5	17.6	10.5	50.0	5.3
Cycle Q Clear(g_c), s	3.7	0.0	34.9	32.9	0.0	16.1	8.5	24.5	17.6	10.5	50.0	5.3
Prop In Lane	1.00		0.74	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	0	277	405	0	548	219	1345	601	344	1388	609
V/C Ratio(X)	0.16	0.00	0.94	1.10	0.00	0.35	0.67	0.49	0.37	0.53	0.82	0.12
Avail Cap(c_a), veh/h	384	0	277	405	0	548	275	1345	601	410	1388	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	0.89	0.89	0.89	0.83	0.83	0.83
Uniform Delay (d), s/veh	47.3	0.0	64.9	51.2	0.0	38.3	36.5	39.0	36.8	28.4	45.1	31.8
Incr Delay (d2), s/veh	0.2	0.0	37.8	72.6	0.0	0.4	3.2	1.1	1.6	0.8	4.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	14.9	27.2	0.0	6.6	4.2	11.8	7.7	5.1	24.5	2.3
LnGrp Delay(d),s/veh	47.5	0.0	102.7	123.7	0.0	38.6	39.7	40.1	38.4	29.2	49.7	32.2
LnGrp LOS	D		F	F		D	D	D	D	C	D	C
Approach Vol, veh/h		309			636			1029			1394	
Approach Delay, s/veh		94.0			98.1			39.7			46.0	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	72.5	12.2	68.8	18.6	70.4	38.0	43.0
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	16.1	61.1	* 12	* 55	19.1	58.1	* 31	* 36
Max Q Clear Time (g_c+I1), s	10.5	52.0	5.7	18.1	12.5	26.5	34.9	36.9
Green Ext Time (p_c), s	0.1	6.3	0.0	1.5	0.2	8.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	58.3
HCM 2010 LOS	E

Notes



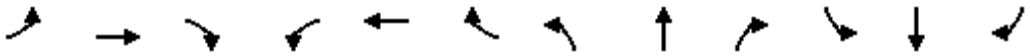
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	116	150	28	172	176	58	131	121	143	166
v/c Ratio	0.20	0.21	0.05	0.37	0.21	0.13	0.40	0.24	0.29	0.23
Control Delay	13.0	17.8	12.5	26.8	3.1	13.7	28.4	14.4	24.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	17.8	12.5	26.8	3.1	13.7	28.4	14.4	24.6	2.9
Queue Length 50th (ft)	26	32	6	60	0	15	48	32	52	0
Queue Length 95th (ft)	60	96	20	125	28	37	104	69	108	29
Internal Link Dist (ft)		900		741			229		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	760	1624	610	1386	1049	649	767	643	837	1023
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.09	0.05	0.12	0.17	0.09	0.17	0.19	0.17	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	104	24	24	146	150	52	102	14	109	129	149
Future Volume (veh/h)	99	104	24	24	146	150	52	102	14	109	129	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.90	0.95		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1791	1900	1863	1863	1863	1792	1706	1900	1827	1827	1810
Adj Flow Rate, veh/h	116	122	28	28	172	176	58	115	16	121	143	166
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.89	0.89	0.89	0.90	0.90	0.90
Percent Heavy Veh, %	2	7	7	2	2	2	6	11	11	4	4	5
Cap, veh/h	513	433	99	535	478	603	493	363	50	542	505	591
Arrive On Green	0.12	0.31	0.31	0.07	0.26	0.26	0.10	0.25	0.25	0.12	0.28	0.28
Sat Flow, veh/h	1774	1410	324	1774	1863	1583	1707	1444	201	1740	1827	1454
Grp Volume(v), veh/h	116	0	150	28	172	176	58	0	131	121	143	166
Grp Sat Flow(s),veh/h/ln	1774	0	1734	1774	1863	1583	1707	0	1645	1740	1827	1454
Q Serve(g_s), s	2.8	0.0	4.3	0.7	5.0	5.1	1.5	0.0	4.3	3.1	4.1	5.1
Cycle Q Clear(g_c), s	2.8	0.0	4.3	0.7	5.0	5.1	1.5	0.0	4.3	3.1	4.1	5.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	513	0	533	535	478	603	493	0	413	542	505	591
V/C Ratio(X)	0.23	0.00	0.28	0.05	0.36	0.29	0.12	0.00	0.32	0.22	0.28	0.28
Avail Cap(c_a), veh/h	1017	0	1753	728	1462	1439	890	0	794	903	882	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	17.4	15.2	20.2	14.3	14.5	0.0	20.2	14.0	18.8	13.5
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.0	0.5	0.3	0.1	0.0	0.4	0.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.1	0.3	2.6	2.3	0.7	0.0	2.0	1.5	2.1	2.1
LnGrp Delay(d),s/veh	13.3	0.0	17.7	15.2	20.6	14.6	14.6	0.0	20.6	14.2	19.1	13.7
LnGrp LOS	B		B	B	C	B	B		C	B	B	B
Approach Vol, veh/h		266			376			189			430	
Approach Delay, s/veh		15.8			17.4			18.8			15.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	24.4	10.7	22.4	12.2	21.0	12.3	20.8
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.7	6.3	3.5	7.1	4.8	7.1	5.1	6.3
Green Ext Time (p_c), s	0.0	1.0	0.1	1.4	0.3	1.7	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	133	1206	821	252	1562	106	344	511	158	125	831	269
v/c Ratio	0.47	1.00	1.08	0.85	1.05	0.12	0.78	0.52	0.28	0.46	1.03	0.51
Control Delay	79.7	80.3	84.3	93.7	84.6	8.1	84.7	54.7	3.9	71.1	81.0	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.7	80.3	84.3	93.7	84.6	8.1	84.7	54.7	3.9	71.1	81.0	14.2
Queue Length 50th (ft)	74	~742	~711	276	~1005	20	193	253	0	63	~521	120
Queue Length 95th (ft)	110	#883	#1022	#430	#1185	53	252	324	34	m73	m#637	m152
Internal Link Dist (ft)		979			836			779			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	442	1208	761	296	1487	875	460	974	566	444	805	524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	1.00	1.08	0.85	1.05	0.12	0.75	0.52	0.28	0.28	1.03	0.51

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 (veh/h)	126	1146	780	239	1484	101	330	491	152	116	773	250
Future Volume (veh/h)	126	1146	780	239	1484	101	330	491	152	116	773	250
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1827	1845	1863	1863	1845	1863	1863
Adj Flow Rate, veh/h	133	1206	821	252	1562	106	344	511	158	125	831	269
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	4	3	2	2	3	2	2
Cap, veh/h	216	1189	728	318	1577	786	421	1012	446	207	806	355
Arrive On Green	0.06	0.34	0.34	0.18	0.45	0.45	0.12	0.29	0.29	0.06	0.23	0.23
Sat Flow, veh/h	3442	3539	1583	1774	3539	1553	3408	3539	1561	3408	3539	1561
Grp Volume(v), veh/h	133	1206	821	252	1562	106	344	511	158	125	831	269
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1553	1704	1770	1561	1704	1770	1561
Q Serve(g_s), s	6.4	57.1	44.4	23.1	74.5	6.2	16.7	20.5	8.5	6.1	38.7	27.3
Cycle Q Clear(g_c), s	6.4	57.1	44.4	23.1	74.5	6.2	16.7	20.5	8.5	6.1	38.7	27.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	1189	728	318	1577	786	421	1012	446	207	806	355
V/C Ratio(X)	0.62	1.01	1.13	0.79	0.99	0.13	0.82	0.51	0.35	0.60	1.03	0.76
Avail Cap(c_a), veh/h	443	1189	728	318	1577	786	461	1012	446	445	806	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.34	0.34	0.34
Uniform Delay (d), s/veh	77.7	56.5	21.2	66.7	46.8	22.3	72.6	50.7	18.5	77.9	65.6	61.3
Incr Delay (d2), s/veh	2.9	29.8	74.7	12.8	20.6	0.4	10.2	0.6	0.7	1.0	27.2	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	32.8	37.5	12.5	40.9	2.7	8.5	10.1	5.4	2.9	22.0	12.2
LnGrp Delay(d),s/veh	80.5	86.2	95.9	79.5	67.3	22.6	82.8	51.2	19.1	78.8	92.9	64.8
LnGrp LOS	F	F	F	E	E	C	F	D	B	E	F	E
Approach Vol, veh/h		2160			1920			1013			1225	
Approach Delay, s/veh		89.5			66.5			56.9			85.3	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	43.0	38.0	61.0	18.1	52.9	15.8	83.2
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 21	36.7	26.5	55.1	20.2	* 37	19.9	60.5
Max Q Clear Time (g_c+I1), s	18.7	40.7	25.1	59.1	8.1	22.5	8.4	76.5
Green Ext Time (p_c), s	0.3	0.0	0.1	0.0	0.3	4.4	0.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	76.5
HCM 2010 LOS	E

Notes

APPENDIX F
2022 FUTURE CONDITIONS WITHOUT DEVELOPMENT
SYNCHRO WORKSHEETS

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	14	36	28	3	1312	27	656
v/c Ratio	0.37	0.05	0.30	0.12	0.00	0.46	0.08	0.23
Control Delay	65.2	0.3	63.8	1.0	2.7	6.5	2.8	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	65.2	0.3	63.8	1.0	2.7	6.8	2.8	3.4
Queue Length 50th (ft)	47	0	31	0	0	216	3	47
Queue Length 95th (ft)	89	0	65	0	2	315	10	126
Internal Link Dist (ft)	1279		1144			653		413
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	160	295	317	447	710	2855	382	2883
Starvation Cap Reductn	0	0	0	0	0	766	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.05	0.11	0.06	0.00	0.63	0.07	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	29	13	25	8	26	3	1244	42	25	588	16
Future Volume (vph)	20	29	13	25	8	26	3	1244	42	25	588	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.98	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1672	1467	1764	3518		1735	3399	
Flt Permitted		0.85	1.00		0.74	1.00	0.40	1.00		0.18	1.00	
Satd. Flow (perm)		1562	1583		1292	1467	748	3518		323	3399	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.92	0.92	0.92
Adj. Flow (vph)	22	32	14	27	9	28	3	1269	43	27	639	17
RTOR Reduction (vph)	0	0	13	0	0	26	0	1	0	0	1	0
Lane Group Flow (vph)	0	54	1	0	36	2	3	1311	0	27	655	0
Confl. Peds. (#/hr)	2					2	5		3	3		5
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	5%	2%	2%	12%	2%	8%	2%	2%	2%	4%	5%	31%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		9.9	9.9		9.9	9.9	107.9	106.8		113.1	109.4	
Effective Green, g (s)		11.9	11.9		11.9	11.9	111.9	108.8		117.1	111.4	
Actuated g/C Ratio		0.09	0.09		0.09	0.09	0.80	0.78		0.84	0.80	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		132	134		109	124	620	2733		327	2704	
v/s Ratio Prot							0.00	c0.37		c0.00	0.19	
v/s Ratio Perm		c0.03	0.00		0.03	0.00	0.00			0.07		
v/c Ratio		0.41	0.01		0.33	0.02	0.00	0.48		0.08	0.24	
Uniform Delay, d1		60.7	58.7		60.3	58.7	2.8	5.5		3.1	3.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1	0.0		1.8	0.1	0.0	0.6		0.1	0.2	
Delay (s)		62.8	58.7		62.1	58.8	2.8	6.1		3.2	3.8	
Level of Service		E	E		E	E	A	A		A	A	
Approach Delay (s)		61.9			60.6			6.1			3.8	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	55.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	115	15	1	108	12	1
Future Vol, veh/h	115	15	1	108	12	1
Conflicting Peds, #/hr	1	4	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	2	2	4	11	2
Mvmt Flow	125	16	1	117	13	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	88	64	0	0	118	0
Stage 1	60	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.46	6.22	-	-	4.21	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.318	-	-	2.299	-
Pot Cap-1 Maneuver	903	1000	-	-	1416	-
Stage 1	952	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	894	996	-	-	1416	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	905	1416	-
HCM Lane V/C Ratio	-	-	0.156	0.009	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	119	127	4	6	3
Future Vol, veh/h	1	119	127	4	6	3
Conflicting Peds, #/hr	17	0	0	17	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	1	129	138	4	7	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	159	0	-	0	288	157
Stage 1	-	-	-	-	157	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1420	-	-	-	702	889
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	895	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1397	-	-	-	679	875
Mov Cap-2 Maneuver	-	-	-	-	679	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	881	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1397	-	-	-	734
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	125	131	0	0	0
Future Vol, veh/h	0	125	131	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	136	142	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	142	0	-	0	278	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	136	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1441	-	-	-	712	906
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1441	-	-	-	712	906
Mov Cap-2 Maneuver	-	-	-	-	712	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	890	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1441	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	116	5	7	123	6	3	1	2	6	1	5
Future Vol, veh/h	5	116	5	7	123	6	3	1	2	6	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	3	2	2	2	2	2	2	2
Mvmt Flow	5	126	5	8	134	7	3	1	2	7	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	141	0	0	131	0	0	296	296	129	294	295	138
Stage 1	-	-	-	-	-	-	139	139	-	154	154	-
Stage 2	-	-	-	-	-	-	157	157	-	140	141	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1442	-	-	1454	-	-	656	616	921	658	616	910
Stage 1	-	-	-	-	-	-	864	782	-	848	770	-
Stage 2	-	-	-	-	-	-	845	768	-	863	780	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1442	-	-	1454	-	-	646	610	921	651	610	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	646	610	-	651	610	-
Stage 1	-	-	-	-	-	-	861	779	-	845	765	-
Stage 2	-	-	-	-	-	-	834	763	-	856	777	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	10.1	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	710	1442	-	-	1454	-	-	734
HCM Lane V/C Ratio	0.009	0.004	-	-	0.005	-	-	0.018
HCM Control Delay (s)	10.1	7.5	0	-	7.5	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	119	5	17	135	0	1	0	10	4	0	0
Future Vol, veh/h	0	119	5	17	135	0	1	0	10	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	129	5	18	147	0	1	0	11	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	147	0	0	134	0	0	315	315	132	320	317	147
Stage 1	-	-	-	-	-	-	132	132	-	183	183	-
Stage 2	-	-	-	-	-	-	183	183	-	137	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1435	-	-	1451	-	-	638	601	917	633	599	900
Stage 1	-	-	-	-	-	-	871	787	-	819	748	-
Stage 2	-	-	-	-	-	-	819	748	-	866	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1451	-	-	631	593	917	619	591	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	631	593	-	619	591	-
Stage 1	-	-	-	-	-	-	871	787	-	819	738	-
Stage 2	-	-	-	-	-	-	808	738	-	856	785	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	9.1	10.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	881	1435	-	-	1451	-	-	619
HCM Lane V/C Ratio	0.014	-	-	-	0.013	-	-	0.007
HCM Control Delay (s)	9.1	0	-	-	7.5	0	-	10.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	129	4	103	152	4	0	0	48	8	0	0
Future Vol, veh/h	0	129	4	103	152	4	0	0	48	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	140	4	112	165	4	0	0	52	9	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	144	0	0	533	535	142	559	535	167
Stage 1	-	-	-	-	-	-	142	142	-	391	391	-
Stage 2	-	-	-	-	-	-	391	393	-	168	144	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1409	-	-	1438	-	-	458	452	906	440	452	877
Stage 1	-	-	-	-	-	-	861	779	-	633	607	-
Stage 2	-	-	-	-	-	-	633	606	-	834	778	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1409	-	-	1438	-	-	428	413	906	387	413	877
Mov Cap-2 Maneuver	-	-	-	-	-	-	428	413	-	387	413	-
Stage 1	-	-	-	-	-	-	861	779	-	633	555	-
Stage 2	-	-	-	-	-	-	579	554	-	786	778	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.1	9.2	14.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	906	1409	-	-	1438	-	-	387
HCM Lane V/C Ratio	0.058	-	-	-	0.078	-	-	0.022
HCM Control Delay (s)	9.2	0	-	-	7.7	0	-	14.5
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.3	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	184	257	3	5	2
Future Vol, veh/h	1	184	257	3	5	2
Conflicting Peds, #/hr	5	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	200	279	3	5	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	287	0	-	0	488	286
Stage 1	-	-	-	-	286	-
Stage 2	-	-	-	-	202	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1275	-	-	-	539	753
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1269	-	-	-	533	749
Mov Cap-2 Maneuver	-	-	-	-	533	-
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	828	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1269	-	-	-	581
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	160	128	88	177	1251	447	325	480	64
v/c Ratio	0.13	0.51	0.37	0.21	0.37	0.91	0.60	0.82	0.29	0.08
Control Delay	40.5	57.6	44.6	35.6	19.7	60.8	24.6	68.7	26.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	57.6	44.6	35.6	19.7	60.8	24.6	68.7	26.0	0.2
Queue Length 50th (ft)	36	137	106	53	89	755	217	315	171	0
Queue Length 95th (ft)	70	224	164	108	137	#941	356	#484	228	0
Internal Link Dist (ft)		182		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	409	368	397	478	513	1375	749	420	1691	819
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.43	0.32	0.18	0.35	0.91	0.60	0.77	0.28	0.08

Intersection Summary

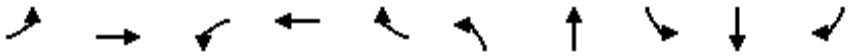
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	70	77	118	38	43	163	1151	411	299	442	59
Future Volume (veh/h)	42	70	77	118	38	43	163	1151	411	299	442	59
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.90	0.95		0.93	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1790	1900	1827	1770	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	46	76	84	128	41	47	177	1251	447	325	480	64
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	3	3	4	2	2	4	4	2	4	11	5
Cap, veh/h	379	168	186	344	194	222	530	1409	638	365	1610	754
Arrive On Green	0.04	0.23	0.23	0.08	0.27	0.27	0.08	0.41	0.41	0.17	0.50	0.50
Sat Flow, veh/h	1723	732	809	1740	722	827	1740	3471	1572	1740	3252	1523
Grp Volume(v), veh/h	46	0	160	128	0	88	177	1251	447	325	480	64
Grp Sat Flow(s),veh/h/ln	1723	0	1541	1740	0	1549	1740	1736	1572	1740	1626	1523
Q Serve(g_s), s	3.2	0.0	14.4	8.7	0.0	7.1	9.3	53.8	38.0	23.2	14.1	3.6
Cycle Q Clear(g_c), s	3.2	0.0	14.4	8.7	0.0	7.1	9.3	53.8	38.0	23.2	14.1	3.6
Prop In Lane	1.00		0.52	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	379	0	354	344	0	416	530	1409	638	365	1610	754
V/C Ratio(X)	0.12	0.00	0.45	0.37	0.00	0.21	0.33	0.89	0.70	0.89	0.30	0.08
Avail Cap(c_a), veh/h	491	0	364	498	0	462	569	1446	655	465	1759	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	53.2	40.8	0.0	45.6	23.3	44.4	39.7	48.9	24.1	21.4
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.5	0.0	0.3	0.3	7.2	3.6	15.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	6.2	4.2	0.0	3.1	4.5	27.1	17.1	15.6	6.4	1.5
LnGrp Delay(d),s/veh	44.1	0.0	54.1	41.3	0.0	45.8	23.6	51.5	43.3	64.0	24.2	21.5
LnGrp LOS	D		D	D		D	C	D	D	E	C	C
Approach Vol, veh/h		206			216			1875			869	
Approach Delay, s/veh		51.9			43.2			46.9			38.9	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	83.5	11.7	48.3	31.6	69.2	17.9	42.1
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	15.0	85.0	* 15	* 46	35.0	65.0	* 25	* 36
Max Q Clear Time (g_c+I1), s	11.3	16.1	5.2	9.1	25.2	55.8	10.7	16.4
Green Ext Time (p_c), s	0.1	5.9	0.0	0.5	0.5	7.5	0.2	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.8
HCM 2010 LOS	D

Notes



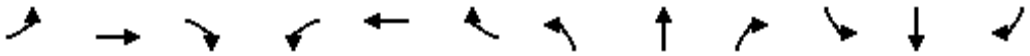
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	299	12	64	77	24	60	148	120	66
v/c Ratio	0.24	0.33	0.02	0.13	0.10	0.07	0.20	0.31	0.24	0.09
Control Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Length 50th (ft)	40	69	2	22	0	6	21	42	33	0
Queue Length 95th (ft)	110	228	14	67	13	21	57	85	93	17
Internal Link Dist (ft)		900		741			320		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	870	1624	614	1465	959	616	749	679	895	1084
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.18	0.02	0.04	0.08	0.04	0.08	0.22	0.13	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	234	41	11	59	71	22	46	9	136	110	61
Future Volume (veh/h)	165	234	41	11	59	71	22	46	9	136	110	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	0.96		0.90	0.94		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1855	1900	1863	1863	1792	1610	1555	1900	1827	1810	1863
Adj Flow Rate, veh/h	179	254	45	12	64	77	24	50	10	148	120	66
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	6	18	20	20	4	5	2
Cap, veh/h	618	512	91	412	476	569	457	308	62	596	559	675
Arrive On Green	0.13	0.33	0.33	0.05	0.26	0.26	0.07	0.25	0.25	0.13	0.31	0.31
Sat Flow, veh/h	1774	1532	271	1774	1863	1473	1533	1233	247	1740	1810	1523
Grp Volume(v), veh/h	179	0	299	12	64	77	24	0	60	148	120	66
Grp Sat Flow(s),veh/h/ln	1774	0	1804	1774	1863	1473	1533	0	1480	1740	1810	1523
Q Serve(g_s), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Cycle Q Clear(g_c), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	618	0	603	412	476	569	457	0	369	596	559	675
V/C Ratio(X)	0.29	0.00	0.50	0.03	0.13	0.14	0.05	0.00	0.16	0.25	0.21	0.10
Avail Cap(c_a), veh/h	1096	0	1786	637	1431	1325	853	0	700	941	856	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	18.0	16.5	19.4	13.6	16.1	0.0	19.9	13.3	17.3	11.2
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.5	0.2	0.9	1.0	0.3	0.0	0.9	1.8	1.7	0.7
LnGrp Delay(d),s/veh	13.3	0.0	18.6	16.5	19.6	13.8	16.1	0.0	20.1	13.5	17.5	11.2
LnGrp LOS	B		B	B	B	B	B		C	B	B	B
Approach Vol, veh/h		478			153			84			334	
Approach Delay, s/veh		16.6			16.4			18.9			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	26.6	8.6	25.0	12.8	21.3	12.7	21.0
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	11.0	2.7	5.3	6.4	4.3	5.7	4.1
Green Ext Time (p_c), s	0.0	2.1	0.0	0.9	0.5	0.7	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	221	1277	152	55	1170	212	705	1344	147	150	288	242
v/c Ratio	0.57	0.85	0.16	0.51	0.95	0.27	1.10	1.21	0.23	0.74	0.44	0.47
Control Delay	68.7	45.7	1.4	84.8	64.3	9.7	121.5	145.8	1.4	90.0	56.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.7	45.7	1.4	84.8	64.3	9.7	121.5	145.8	1.4	90.0	56.1	5.8
Queue Length 50th (ft)	107	608	0	53	587	39	~402	~840	0	75	132	0
Queue Length 95th (ft)	148	714	18	103	#784	97	#529	#980	5	#127	182	42
Internal Link Dist (ft)		1010			1208			784			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	524	1506	968	109	1226	799	640	1113	631	204	651	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.85	0.16	0.50	0.95	0.27	1.10	1.21	0.23	0.74	0.44	0.47

Intersection Summary

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

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1175	140	51	1076	195	656	1250	137	138	265	223
Future Volume (veh/h)	203	1175	140	51	1076	195	656	1250	137	138	265	223
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1845	1810	1827	1845	1845	1863	1863	1845	1810	1792	1827
Adj Flow Rate, veh/h	221	1277	152	55	1170	212	705	1344	147	150	288	242
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	5	4	3	3	2	2	3	5	6	4
Cap, veh/h	317	1428	912	104	1287	671	642	1114	489	205	663	298
Arrive On Green	0.09	0.41	0.41	0.06	0.37	0.37	0.19	0.31	0.31	0.06	0.19	0.19
Sat Flow, veh/h	3442	3505	1535	1740	3505	1564	3442	3539	1553	3343	3406	1529
Grp Volume(v), veh/h	221	1277	152	55	1170	212	705	1344	147	150	288	242
Grp Sat Flow(s),veh/h/ln	1721	1752	1535	1740	1752	1564	1721	1770	1553	1672	1703	1529
Q Serve(g_s), s	9.3	51.0	3.5	4.6	47.6	13.4	28.0	47.2	8.2	6.6	11.2	22.7
Cycle Q Clear(g_c), s	9.3	51.0	3.5	4.6	47.6	13.4	28.0	47.2	8.2	6.6	11.2	22.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	1428	912	104	1287	671	642	1114	489	205	663	298
V/C Ratio(X)	0.70	0.89	0.17	0.53	0.91	0.32	1.10	1.21	0.30	0.73	0.43	0.81
Avail Cap(c_a), veh/h	525	1428	912	110	1287	671	642	1114	489	205	663	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	66.1	41.4	4.4	68.4	45.1	28.3	61.0	51.4	22.4	69.2	53.1	57.8
Incr Delay (d2), s/veh	2.8	9.0	0.4	4.1	11.0	1.2	65.1	101.7	0.5	12.1	0.6	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	26.4	2.0	2.3	25.0	6.0	19.1	38.8	4.2	3.4	5.3	10.9
LnGrp Delay(d),s/veh	68.8	50.4	4.8	72.5	56.1	29.6	126.1	153.1	22.9	81.3	53.8	73.6
LnGrp LOS	E	D	A	E	E	C	F	F	C	F	D	E
Approach Vol, veh/h		1650			1437			2196			680	
Approach Delay, s/veh		48.7			52.8			135.7			66.9	
Approach LOS		D			D			F			E	

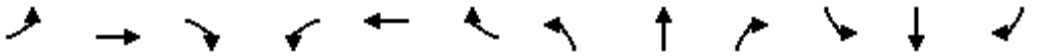
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	33.5	16.5	65.0	17.0	51.5	18.9	62.6
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 26	26.7	7.5	59.1	7.2	* 45	20.9	44.5
Max Q Clear Time (g_c+I1), s	30.0	24.7	6.6	53.0	8.6	49.2	11.3	49.6
Green Ext Time (p_c), s	0.0	0.7	0.0	4.8	0.0	0.0	0.5	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	83.8
HCM 2010 LOS	F

Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	13	73	35	16	809	32	1421
v/c Ratio	0.12	0.04	0.34	0.11	0.05	0.30	0.06	0.53
Control Delay	48.3	0.2	54.8	0.7	5.4	8.6	5.1	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	0.2	54.8	0.7	5.4	8.6	5.1	10.4
Queue Length 50th (ft)	22	0	60	0	3	141	6	215
Queue Length 95th (ft)	48	0	102	0	11	227	18	499
Internal Link Dist (ft)	1279		1144			653		380
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	243	367	343	443	332	2654	555	2682
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.21	0.08	0.05	0.30	0.06	0.53

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	12	12	45	22	32	15	718	27	29	1295	12
Future Volume (vph)	14	12	12	45	22	32	15	718	27	29	1295	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.99		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1810	1562		1723	1458	1770	3513		1765	3463	
Flt Permitted		0.85	1.00		0.78	1.00	0.15	1.00		0.32	1.00	
Satd. Flow (perm)		1571	1562		1396	1458	277	3513		587	3463	
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)	15	13	13	49	24	35	16	780	29	32	1408	13
RTOR Reduction (vph)	0	0	11	0	0	30	0	1	0	0	0	0
Lane Group Flow (vph)	0	28	2	0	73	5	16	808	0	32	1421	0
Confl. Peds. (#/hr)	2					2	26		9	9		26
Confl. Bikes (#/hr)			1						1			2
Heavy Vehicles (%)	2%	2%	2%	9%	2%	9%	2%	2%	2%	2%	4%	2%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		17.6	17.6		17.6	17.6	101.4	98.9		104.2	100.3	
Effective Green, g (s)		19.6	19.6		19.6	19.6	105.4	100.9		108.2	102.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.75	0.72		0.77	0.73	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		219	218		195	204	256	2531		503	2530	
v/s Ratio Prot							0.00	0.23		c0.00	c0.41	
v/s Ratio Perm		0.02	0.00		c0.05	0.00	0.04			0.05		
v/c Ratio		0.13	0.01		0.37	0.02	0.06	0.32		0.06	0.56	
Uniform Delay, d1		52.7	51.8		54.6	51.9	5.9	7.1		4.0	8.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		1.2	0.0	0.1	0.3		0.1	0.9	
Delay (s)		53.0	51.8		55.8	52.0	6.1	7.4		4.0	9.5	
Level of Service		D	D		E	D	A	A		A	A	
Approach Delay (s)		52.6			54.6			7.4			9.4	
Approach LOS		D			D			A			A	

Intersection Summary					
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio	0.53				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		18.1	
Intersection Capacity Utilization	56.0%	ICU Level of Service		B	
Analysis Period (min)	15				
c Critical Lane Group					

Intersection	
Int Delay, s/veh	6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	173	25	5	112	22	0
Future Vol, veh/h	173	25	5	112	22	0
Conflicting Peds, #/hr	0	9	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	20	3	2	2
Mvmt Flow	188	27	5	122	24	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	116	77	0	0	129	0
Stage 1	68	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	871	973	-	-	1457	-
Stage 1	945	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	854	963	-	-	1454	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	7.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	866	1454	-
HCM Lane V/C Ratio	-	-	0.249	0.016	-
HCM Control Delay (s)	-	-	10.5	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	128	194	15	5	4
Future Vol, veh/h	6	128	194	15	5	4
Conflicting Peds, #/hr	48	0	0	48	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	7	2	2
Mvmt Flow	7	139	211	16	5	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	275	0	-	0	420	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1288	-	-	-	590	772
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1229	-	-	-	534	737
Mov Cap-2 Maneuver	-	-	-	-	534	-
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1229	-	-	-	608
HCM Lane V/C Ratio	0.005	-	-	-	0.016
HCM Control Delay (s)	7.9	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	133	209	0	0	0
Future Vol, veh/h	0	133	209	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	145	227	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	227	0	-	0	372	227
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	145	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1341	-	-	-	629	812
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1341	-	-	-	629	812
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	882	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1341	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	128	1	6	204	7	4	0	28	5	0	1
Future Vol, veh/h	4	128	1	6	204	7	4	0	28	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	139	1	7	222	8	4	0	30	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	230	0	0	140	0	0	389	392	140	403	388	226
Stage 1	-	-	-	-	-	-	148	148	-	240	240	-
Stage 2	-	-	-	-	-	-	241	244	-	163	148	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1338	-	-	1443	-	-	570	544	908	558	547	813
Stage 1	-	-	-	-	-	-	855	775	-	763	707	-
Stage 2	-	-	-	-	-	-	762	704	-	839	775	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1338	-	-	1443	-	-	565	539	908	536	542	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	565	539	-	536	542	-
Stage 1	-	-	-	-	-	-	852	773	-	761	703	-
Stage 2	-	-	-	-	-	-	756	700	-	808	773	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	9.4	11.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	844	1338	-	-	1443	-	-	568
HCM Lane V/C Ratio	0.041	0.003	-	-	0.005	-	-	0.011
HCM Control Delay (s)	9.4	7.7	0	-	7.5	0	-	11.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	157	1	7	210	1	1	0	18	3	0	6
Future Vol, veh/h	3	157	1	7	210	1	1	0	18	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	171	1	8	228	1	1	0	20	3	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	229	0	0	172	0	0	426	423	172	433	423	229
Stage 1	-	-	-	-	-	-	178	178	-	245	245	-
Stage 2	-	-	-	-	-	-	248	245	-	188	178	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1339	-	-	1405	-	-	539	522	872	533	522	810
Stage 1	-	-	-	-	-	-	824	752	-	759	703	-
Stage 2	-	-	-	-	-	-	756	703	-	814	752	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1339	-	-	1405	-	-	531	517	872	518	517	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	531	517	-	518	517	-
Stage 1	-	-	-	-	-	-	822	750	-	757	698	-
Stage 2	-	-	-	-	-	-	745	698	-	794	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	9.4	10.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1339	-	-	1405	-	-	682
HCM Lane V/C Ratio	0.024	0.002	-	-	0.005	-	-	0.014
HCM Control Delay (s)	9.4	7.7	0	-	7.6	0	-	10.4
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	173	1	57	213	5	1	0	86	1	0	4
Future Vol, veh/h	4	173	1	57	213	5	1	0	86	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	93	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	188	1	61	229	5	1	0	93	1	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	189	0	0	553	553	189	597	551	232
Stage 1	-	-	-	-	-	-	197	197	-	354	354	-
Stage 2	-	-	-	-	-	-	356	356	-	243	197	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1333	-	-	1385	-	-	444	441	853	415	442	807
Stage 1	-	-	-	-	-	-	805	738	-	663	630	-
Stage 2	-	-	-	-	-	-	661	629	-	761	738	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1333	-	-	1385	-	-	424	417	853	354	418	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	424	417	-	354	418	-
Stage 1	-	-	-	-	-	-	803	736	-	661	598	-
Stage 2	-	-	-	-	-	-	624	597	-	676	736	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	9.8	10.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1333	-	-	1385	-	-	643
HCM Lane V/C Ratio	0.112	0.003	-	-	0.044	-	-	0.008
HCM Control Delay (s)	9.8	7.7	0	-	7.7	0	-	10.6
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0

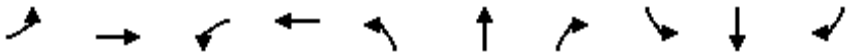
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	260	275	2	3	0
Future Vol, veh/h	0	260	275	2	3	0
Conflicting Peds, #/hr	12	0	0	12	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	283	299	2	3	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	313	0	-	0	595	312
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1247	-	-	-	467	728
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1233	-	-	-	457	720
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	757	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1233	-	-	-	457
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Control Delay (s)	0	-	-	-	12.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	46	240	410	177	147	685	223	184	1182	75
v/c Ratio	0.13	0.70	0.86	0.28	0.73	0.53	0.31	0.53	0.89	0.12
Control Delay	30.0	53.0	53.2	30.4	95.7	20.6	1.3	29.9	58.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0
Total Delay	30.0	53.0	53.2	30.4	95.7	20.6	1.3	29.9	65.9	0.4
Queue Length 50th (ft)	29	172	326	106	117	285	0	113	657	0
Queue Length 95th (ft)	56	282	#465	177	203	348	0	166	#801	0
Internal Link Dist (ft)		182		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	397	341	475	638	226	1299	715	382	1325	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	119	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.70	0.86	0.28	0.65	0.53	0.31	0.48	0.98	0.12

Intersection Summary

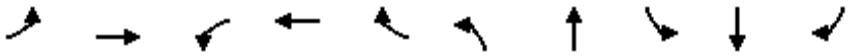
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	58	163	377	69	94	138	644	210	171	1099	70
Future Volume (veh/h)	42	58	163	377	69	94	138	644	210	171	1099	70
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.78		0.71	0.96		0.82	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1836	1900	1863	1832	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	46	63	177	410	75	102	147	685	223	184	1182	75
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	2	2	2	5	5	2	4	5	2
Cap, veh/h	314	73	204	426	234	318	209	1345	601	336	1388	609
Arrive On Green	0.04	0.22	0.22	0.19	0.38	0.38	0.07	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	1723	326	917	1774	621	844	1723	3438	1536	1740	3438	1508
Grp Volume(v), veh/h	46	0	240	410	0	177	147	685	223	184	1182	75
Grp Sat Flow(s),veh/h/ln	1723	0	1243	1774	0	1465	1723	1719	1536	1740	1719	1508
Q Serve(g_s), s	3.4	0.0	31.6	30.9	0.0	14.6	8.5	25.7	17.6	10.5	53.1	5.3
Cycle Q Clear(g_c), s	3.4	0.0	31.6	30.9	0.0	14.6	8.5	25.7	17.6	10.5	53.1	5.3
Prop In Lane	1.00		0.74	1.00		0.58	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	0	277	426	0	551	209	1345	601	336	1388	609
V/C Ratio(X)	0.15	0.00	0.87	0.96	0.00	0.32	0.70	0.51	0.37	0.55	0.85	0.12
Avail Cap(c_a), veh/h	385	0	277	426	0	551	265	1345	601	402	1388	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.98	0.00	0.98	0.88	0.88	0.88	0.84	0.84	0.84
Uniform Delay (d), s/veh	47.4	0.0	63.6	44.7	0.0	37.6	37.5	39.3	36.8	28.7	46.1	31.8
Incr Delay (d2), s/veh	0.2	0.0	23.7	33.3	0.0	0.3	4.4	1.2	1.5	0.9	5.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	12.7	23.0	0.0	5.9	4.3	12.5	7.7	5.1	26.4	2.3
LnGrp Delay(d),s/veh	47.6	0.0	87.3	78.0	0.0	37.9	41.9	40.5	38.4	29.5	51.8	32.2
LnGrp LOS	D		F	E		D	D	D	D	C	D	C
Approach Vol, veh/h		286			587			1055			1441	
Approach Delay, s/veh		81.0			65.9			40.3			48.0	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	72.5	11.9	69.1	18.6	70.4	38.0	43.0
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	16.1	61.1	* 12	* 55	19.1	58.1	* 31	* 36
Max Q Clear Time (g_c+I1), s	10.5	55.1	5.4	16.6	12.5	27.7	32.9	33.6
Green Ext Time (p_c), s	0.1	4.5	0.0	1.3	0.2	9.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

Notes



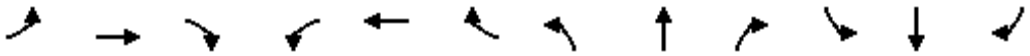
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	108	139	26	159	163	57	126	118	140	162
v/c Ratio	0.19	0.20	0.05	0.34	0.20	0.13	0.38	0.23	0.29	0.23
Control Delay	13.0	17.8	12.6	26.2	3.1	13.2	27.4	13.9	24.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	17.8	12.6	26.2	3.1	13.2	27.4	13.9	24.1	2.9
Queue Length 50th (ft)	24	29	5	54	0	14	45	30	50	0
Queue Length 95th (ft)	60	96	21	123	32	36	99	64	102	28
Internal Link Dist (ft)		900		741			316		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	764	1637	616	1401	1050	652	775	650	846	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.04	0.11	0.16	0.09	0.16	0.18	0.17	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	104	24	24	146	150	52	102	14	109	129	149
Future Volume (veh/h)	99	104	24	24	146	150	52	102	14	109	129	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.90	0.94		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1791	1900	1863	1863	1863	1792	1706	1900	1827	1827	1810
Adj Flow Rate, veh/h	108	113	26	26	159	163	57	111	15	118	140	162
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	7	2	2	2	6	11	11	4	4	5
Cap, veh/h	523	435	100	543	479	604	496	365	49	546	506	590
Arrive On Green	0.12	0.31	0.31	0.07	0.26	0.26	0.10	0.25	0.25	0.12	0.28	0.28
Sat Flow, veh/h	1774	1410	324	1774	1863	1583	1707	1451	196	1740	1827	1454
Grp Volume(v), veh/h	108	0	139	26	159	163	57	0	126	118	140	162
Grp Sat Flow(s),veh/h/ln	1774	0	1734	1774	1863	1583	1707	0	1647	1740	1827	1454
Q Serve(g_s), s	2.6	0.0	4.0	0.7	4.6	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Cycle Q Clear(g_c), s	2.6	0.0	4.0	0.7	4.6	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	523	0	535	543	479	604	496	0	415	546	506	590
V/C Ratio(X)	0.21	0.00	0.26	0.05	0.33	0.27	0.11	0.00	0.30	0.22	0.28	0.27
Avail Cap(c_a), veh/h	1032	0	1759	740	1466	1443	895	0	798	910	885	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	17.2	15.2	19.9	14.1	14.4	0.0	20.0	13.9	18.7	13.5
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.0	0.4	0.2	0.1	0.0	0.4	0.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.9	0.3	2.4	2.1	0.7	0.0	1.9	1.4	2.0	2.0
LnGrp Delay(d),s/veh	13.2	0.0	17.4	15.2	20.3	14.3	14.5	0.0	20.4	14.1	19.0	13.7
LnGrp LOS	B		B	B	C	B	B		C	B	B	B
Approach Vol, veh/h		247			348			183			420	
Approach Delay, s/veh		15.6			17.1			18.6			15.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.4	10.6	22.4	12.0	21.0	12.3	20.7
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.7	6.0	3.5	7.0	4.6	6.7	5.0	6.1
Green Ext Time (p_c), s	0.0	0.9	0.1	1.4	0.2	1.6	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	1256	855	262	1625	111	357	532	165	130	865	280
v/c Ratio	0.48	1.04	1.12	0.89	1.10	0.13	0.80	0.55	0.29	0.47	1.07	0.53
Control Delay	79.8	91.5	100.3	98.3	101.5	8.5	85.8	55.2	4.8	71.3	92.7	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.8	91.5	100.3	98.3	101.5	8.5	85.8	55.2	4.8	71.3	92.7	15.5
Queue Length 50th (ft)	77	~803	~790	289	~1085	23	201	266	0	65	~562	138
Queue Length 95th (ft)	113	#943	#1205	#458	#1263	57	261	339	41	m74	m#697	m176
Internal Link Dist (ft)		999			1255			814			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	442	1203	761	296	1476	873	460	975	566	444	805	524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	1.04	1.12	0.89	1.10	0.13	0.78	0.55	0.29	0.29	1.07	0.53

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 (veh/h)	131	1193	812	249	1544	105	343	511	158	121	804	260
Future Volume (veh/h)	131	1193	812	249	1544	105	343	511	158	121	804	260
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1827	1845	1863	1863	1845	1863	1863
Adj Flow Rate, veh/h	138	1256	855	262	1625	111	357	532	165	130	865	280
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	4	3	2	2	3	2	2
Cap, veh/h	221	1189	733	312	1559	781	433	1019	449	212	806	355
Arrive On Green	0.06	0.34	0.34	0.18	0.44	0.44	0.13	0.29	0.29	0.06	0.23	0.23
Sat Flow, veh/h	3442	3539	1583	1774	3539	1553	3408	3539	1561	3408	3539	1561
Grp Volume(v), veh/h	138	1256	855	262	1625	111	357	532	165	130	865	280
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1553	1704	1770	1561	1704	1770	1561
Q Serve(g_s), s	6.6	57.1	44.3	24.3	74.9	6.5	17.4	21.4	8.9	6.3	38.7	28.7
Cycle Q Clear(g_c), s	6.6	57.1	44.3	24.3	74.9	6.5	17.4	21.4	8.9	6.3	38.7	28.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	221	1189	733	312	1559	781	433	1019	449	212	806	355
V/C Ratio(X)	0.62	1.06	1.17	0.84	1.04	0.14	0.82	0.52	0.37	0.61	1.07	0.79
Avail Cap(c_a), veh/h	443	1189	733	312	1559	781	461	1019	449	445	806	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.34	0.34	0.34
Uniform Delay (d), s/veh	77.6	56.5	20.7	67.7	47.5	22.6	72.4	50.7	18.7	77.7	65.6	61.8
Incr Delay (d2), s/veh	2.9	42.4	89.4	18.0	34.6	0.4	11.1	0.7	0.7	1.0	42.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	34.9	40.8	13.5	44.1	2.9	8.8	10.6	5.6	3.0	23.6	12.8
LnGrp Delay(d),s/veh	80.4	98.9	110.1	85.8	82.1	23.0	83.4	51.4	19.4	78.7	107.6	66.2
LnGrp LOS	F	F	F	F	F	C	F	D	B	E	F	E
Approach Vol, veh/h		2249			1998			1054			1275	
Approach Delay, s/veh		102.0			79.3			57.2			95.6	
Approach LOS		F			E			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.6	43.0	37.4	61.0	18.4	53.2	16.0	82.4
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 21	36.7	26.5	55.1	20.2	* 37	19.9	60.5
Max Q Clear Time (g_c+I1), s	19.4	40.7	26.3	59.1	8.3	23.4	8.6	76.9
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.3	4.4	0.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	86.7
HCM 2010 LOS	F

Notes

APPENDIX G
2022 FUTURE CONDITIONS WITH DEVELOPMENT SYNCHRO WORKSHEETS

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	14	36	28	3	1404	27	677
v/c Ratio	0.37	0.05	0.30	0.12	0.00	0.49	0.08	0.23
Control Delay	65.2	0.3	63.8	1.0	2.7	6.9	2.9	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	65.2	0.3	63.8	1.0	2.7	7.2	2.9	3.4
Queue Length 50th (ft)	47	0	31	0	0	241	3	48
Queue Length 95th (ft)	89	0	65	0	2	351	10	131
Internal Link Dist (ft)	1279		1144			653		219
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	160	295	317	447	698	2855	354	2884
Starvation Cap Reductn	0	0	0	0	0	731	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.05	0.11	0.06	0.00	0.66	0.08	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	29	13	25	8	26	3	1334	42	25	607	16
Future Volume (vph)	20	29	13	25	8	26	3	1334	42	25	607	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.98	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1672	1467	1765	3520		1736	3401	
Flt Permitted		0.85	1.00		0.74	1.00	0.39	1.00		0.16	1.00	
Satd. Flow (perm)		1562	1583		1292	1467	732	3520		287	3401	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.92	0.92	0.92
Adj. Flow (vph)	22	32	14	27	9	28	3	1361	43	27	660	17
RTOR Reduction (vph)	0	0	13	0	0	26	0	1	0	0	1	0
Lane Group Flow (vph)	0	54	1	0	36	2	3	1403	0	27	676	0
Confl. Peds. (#/hr)	2					2	5		3	3		5
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	5%	2%	2%	12%	2%	8%	2%	2%	2%	4%	5%	31%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		9.9	9.9		9.9	9.9	107.9	106.8		113.1	109.4	
Effective Green, g (s)		11.9	11.9		11.9	11.9	111.9	108.8		117.1	111.4	
Actuated g/C Ratio		0.09	0.09		0.09	0.09	0.80	0.78		0.84	0.80	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		132	134		109	124	607	2735		299	2706	
v/s Ratio Prot							0.00	c0.40		c0.00	0.20	
v/s Ratio Perm		c0.03	0.00		0.03	0.00	0.00			0.07		
v/c Ratio		0.41	0.01		0.33	0.02	0.00	0.51		0.09	0.25	
Uniform Delay, d1		60.7	58.7		60.3	58.7	2.8	5.8		3.4	3.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1	0.0		1.8	0.1	0.0	0.7		0.1	0.2	
Delay (s)		62.8	58.7		62.1	58.8	2.8	6.5		3.6	3.9	
Level of Service		E	E		E	E	A	A		A	A	
Approach Delay (s)		61.9			60.6			6.5			3.9	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	111	16	1	105	12	1
Future Vol, veh/h	111	16	1	105	12	1
Conflicting Peds, #/hr	1	4	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	2	2	4	11	2
Mvmt Flow	121	17	1	114	13	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	62	0	0	115	0
Stage 1	58	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.46	6.22	-	-	4.21	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.318	-	-	2.299	-
Pot Cap-1 Maneuver	905	1003	-	-	1420	-
Stage 1	954	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	896	999	-	-	1420	-
Mov Cap-2 Maneuver	896	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	908	1420	-
HCM Lane V/C Ratio	-	-	0.152	0.009	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	115	124	4	6	3
Future Vol, veh/h	1	115	124	4	6	3
Conflicting Peds, #/hr	17	0	0	17	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	1	125	135	4	7	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	156	0	-	0	281	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1424	-	-	-	709	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1401	-	-	-	686	878
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1401	-	-	-	740
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	121	128	0	0	0
Future Vol, veh/h	0	121	128	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	132	139	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	139	0	-	0	271	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1445	-	-	-	718	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1445	-	-	-	718	909
Mov Cap-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	894	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	5	7	125	3	2
Future Vol, veh/h	116	5	7	125	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	2	2
Mvmt Flow	126	5	8	136	3	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	131	0	281	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1454	-	709	921
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	876	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1454	-	705	921
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	778	-	-	1454	-
HCM Lane V/C Ratio	0.007	-	-	0.005	-
HCM Control Delay (s)	9.7	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	5	17	131	1	10
Future Vol, veh/h	113	5	17	131	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	123	5	18	142	1	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	128	0	304	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1458	-	688	924
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1458	-	679	924
Mov Cap-2 Maneuver	-	-	-	-	679	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1458	-
HCM Lane V/C Ratio	0.013	-	-	0.013	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

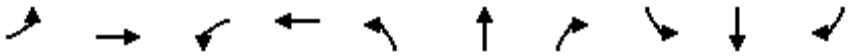
Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	118	4	103	144	51	0	0	48	204	0	4
Future Vol, veh/h	1	118	4	103	144	51	0	0	48	204	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	128	4	112	157	55	0	0	52	222	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	132	0	0	543	568	130	567	543	185
Stage 1	-	-	-	-	-	-	132	132	-	409	409	-
Stage 2	-	-	-	-	-	-	411	436	-	158	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1358	-	-	1453	-	-	451	432	920	434	447	857
Stage 1	-	-	-	-	-	-	871	787	-	619	596	-
Stage 2	-	-	-	-	-	-	618	580	-	844	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1453	-	-	418	394	920	381	407	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	418	394	-	381	407	-
Stage 1	-	-	-	-	-	-	870	786	-	618	544	-
Stage 2	-	-	-	-	-	-	561	529	-	795	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.7	9.1	26.8
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	920	1358	-	-	1453	-	-	385
HCM Lane V/C Ratio	0.057	0.001	-	-	0.077	-	-	0.587
HCM Control Delay (s)	9.1	7.7	0	-	7.7	0	-	26.8
HCM Lane LOS	A	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	3.6



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	264	128	89	197	1251	447	325	480	85
v/c Ratio	0.34	0.82	0.47	0.24	0.50	0.94	0.66	0.84	0.30	0.19
Control Delay	44.0	71.5	47.1	39.6	22.7	65.8	27.0	71.9	27.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	71.5	47.1	39.6	22.7	65.8	27.0	71.9	27.1	1.0
Queue Length 50th (ft)	116	236	106	58	97	743	223	310	170	0
Queue Length 95th (ft)	176	#415	164	113	151	#937	377	#481	227	0
Internal Link Dist (ft)		615		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	421	321	360	450	417	1332	677	408	1630	443
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.82	0.36	0.20	0.47	0.94	0.66	0.80	0.29	0.19

Intersection Summary

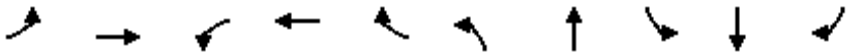
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	71	172	118	39	43	181	1151	411	299	442	78
Future Volume (veh/h)	127	71	172	118	39	43	181	1151	411	299	442	78
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.82		0.75	0.94		0.76	0.93		0.90	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1772	1900	1827	1771	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	138	77	187	128	42	47	197	1251	447	325	480	85
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	3	3	4	2	2	4	4	2	4	11	5
Cap, veh/h	374	87	212	219	150	168	504	1391	573	364	1576	645
Arrive On Green	0.08	0.24	0.24	0.08	0.23	0.23	0.09	0.40	0.40	0.17	0.48	0.48
Sat Flow, veh/h	1723	370	898	1740	649	726	1740	3471	1429	1740	3252	1332
Grp Volume(v), veh/h	138	0	264	128	0	89	197	1251	447	325	480	85
Grp Sat Flow(s),veh/h/ln	1723	0	1268	1740	0	1375	1740	1736	1429	1740	1626	1332
Q Serve(g_s), s	9.8	0.0	33.0	9.0	0.0	8.7	10.7	55.4	44.8	24.0	14.6	5.8
Cycle Q Clear(g_c), s	9.8	0.0	33.0	9.0	0.0	8.7	10.7	55.4	44.8	24.0	14.6	5.8
Prop In Lane	1.00		0.71	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	374	0	299	219	0	318	504	1391	573	364	1576	645
V/C Ratio(X)	0.37	0.00	0.88	0.58	0.00	0.28	0.39	0.90	0.78	0.89	0.30	0.13
Avail Cap(c_a), veh/h	407	0	299	366	0	402	527	1417	583	454	1724	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	0.0	60.5	45.6	0.0	51.8	24.0	46.1	42.9	50.5	25.6	23.3
Incr Delay (d2), s/veh	0.6	0.0	25.0	1.8	0.0	0.5	0.4	8.2	7.1	16.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	13.7	4.4	0.0	3.4	5.1	28.2	18.8	16.0	6.6	2.1
LnGrp Delay(d),s/veh	42.6	0.0	85.5	47.4	0.0	52.3	24.4	54.3	49.9	66.7	25.7	23.4
LnGrp LOS	D		F	D		D	C	D	D	E	C	C
Approach Vol, veh/h		402			217			1895			890	
Approach Delay, s/veh		70.8			49.4			50.1			40.5	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	83.4	18.9	43.1	32.4	69.7	18.2	43.8
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	15.0	85.0	* 15	* 46	35.0	65.0	* 25	* 36
Max Q Clear Time (g_c+I1), s	12.7	16.6	11.8	10.7	26.0	57.4	11.0	35.0
Green Ext Time (p_c), s	0.1	6.1	0.1	0.6	0.5	6.3	0.2	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.0
HCM 2010 LOS	D

Notes



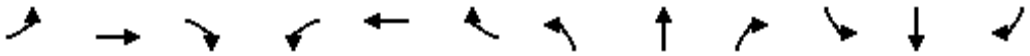
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	300	12	65	77	24	60	148	120	66
v/c Ratio	0.24	0.33	0.02	0.13	0.10	0.07	0.20	0.31	0.24	0.09
Control Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Length 50th (ft)	40	70	2	22	0	6	21	42	33	0
Queue Length 95th (ft)	110	229	14	67	13	21	57	85	93	17
Internal Link Dist (ft)		900		741			229		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	870	1624	613	1465	959	616	749	679	895	1084
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.18	0.02	0.04	0.08	0.04	0.08	0.22	0.13	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	235	41	11	60	71	22	46	9	136	110	61
Future Volume (veh/h)	165	235	41	11	60	71	22	46	9	136	110	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	0.96		0.90	0.94		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1855	1900	1863	1863	1792	1610	1555	1900	1827	1810	1863
Adj Flow Rate, veh/h	179	255	45	12	65	77	24	50	10	148	120	66
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	6	18	20	20	4	5	2
Cap, veh/h	617	513	90	411	476	569	457	308	62	596	559	675
Arrive On Green	0.13	0.33	0.33	0.05	0.26	0.26	0.07	0.25	0.25	0.13	0.31	0.31
Sat Flow, veh/h	1774	1533	271	1774	1863	1473	1533	1233	247	1740	1810	1523
Grp Volume(v), veh/h	179	0	300	12	65	77	24	0	60	148	120	66
Grp Sat Flow(s),veh/h/ln	1774	0	1804	1774	1863	1473	1533	0	1480	1740	1810	1523
Q Serve(g_s), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Cycle Q Clear(g_c), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	617	0	603	411	476	569	457	0	369	596	559	675
V/C Ratio(X)	0.29	0.00	0.50	0.03	0.14	0.14	0.05	0.00	0.16	0.25	0.21	0.10
Avail Cap(c_a), veh/h	1095	0	1786	636	1431	1325	853	0	700	941	856	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	18.0	16.5	19.4	13.6	16.1	0.0	19.9	13.3	17.3	11.2
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.5	0.2	1.0	1.0	0.3	0.0	0.9	1.8	1.7	0.7
LnGrp Delay(d),s/veh	13.3	0.0	18.6	16.6	19.6	13.8	16.1	0.0	20.1	13.5	17.5	11.2
LnGrp LOS	B		B	B	B	B	B		C	B	B	B
Approach Vol, veh/h		479			154			84			334	
Approach Delay, s/veh		16.6			16.4			18.9			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	26.6	8.6	25.0	12.8	21.3	12.7	21.0
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	11.0	2.7	5.3	6.4	4.3	5.7	4.1
Green Ext Time (p_c), s	0.0	2.2	0.0	0.9	0.5	0.7	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	229	1277	152	55	1170	221	705	1346	147	184	324	276
v/c Ratio	0.58	0.85	0.16	0.51	0.96	0.28	1.10	1.21	0.23	0.90	0.50	0.54
Control Delay	68.6	45.7	1.4	84.8	65.7	10.3	121.5	146.5	1.4	110.7	57.2	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.6	45.7	1.4	84.8	65.7	10.3	121.5	146.5	1.4	110.7	57.2	9.4
Queue Length 50th (ft)	111	608	0	53	590	44	~402	~842	0	93	151	0
Queue Length 95th (ft)	153	714	18	103	#788	106	#529	#983	5	#169	203	80
Internal Link Dist (ft)		998			836			811			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	524	1506	968	109	1217	795	640	1113	631	204	651	514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.85	0.16	0.50	0.96	0.28	1.10	1.21	0.23	0.90	0.50	0.54

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 (veh/h)	211	1175	140	51	1076	203	656	1252	137	169	298	254
Future Volume (veh/h)	211	1175	140	51	1076	203	656	1252	137	169	298	254
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1845	1810	1827	1845	1845	1863	1863	1845	1810	1792	1827
Adj Flow Rate, veh/h	229	1277	152	55	1170	221	705	1346	147	184	324	276
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	5	4	3	3	2	2	3	5	6	4
Cap, veh/h	325	1428	912	104	1279	667	642	1114	489	205	663	298
Arrive On Green	0.09	0.41	0.41	0.06	0.36	0.36	0.19	0.31	0.31	0.06	0.19	0.19
Sat Flow, veh/h	3442	3505	1535	1740	3505	1564	3442	3539	1553	3343	3406	1529
Grp Volume(v), veh/h	229	1277	152	55	1170	221	705	1346	147	184	324	276
Grp Sat Flow(s),veh/h/ln	1721	1752	1535	1740	1752	1564	1721	1770	1553	1672	1703	1529
Q Serve(g_s), s	9.7	51.0	3.5	4.6	47.7	14.2	28.0	47.2	8.2	8.2	12.7	26.6
Cycle Q Clear(g_c), s	9.7	51.0	3.5	4.6	47.7	14.2	28.0	47.2	8.2	8.2	12.7	26.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	1428	912	104	1279	667	642	1114	489	205	663	298
V/C Ratio(X)	0.70	0.89	0.17	0.53	0.91	0.33	1.10	1.21	0.30	0.90	0.49	0.93
Avail Cap(c_a), veh/h	525	1428	912	110	1279	667	642	1114	489	205	663	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	65.9	41.4	4.4	68.4	45.4	28.8	61.0	51.4	22.4	69.9	53.8	59.4
Incr Delay (d2), s/veh	2.8	9.0	0.4	4.1	11.6	1.3	65.1	102.5	0.5	34.9	0.8	32.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	26.4	2.0	2.3	25.1	6.3	19.1	38.9	4.2	4.8	6.1	14.0
LnGrp Delay(d),s/veh	68.7	50.4	4.8	72.5	57.0	30.1	126.1	153.9	22.9	104.8	54.5	92.3
LnGrp LOS	E	D	A	E	E	C	F	F	C	F	D	F
Approach Vol, veh/h		1658			1446			2198			784	
Approach Delay, s/veh		48.8			53.5			136.2			79.6	
Approach LOS		D			D			F			E	

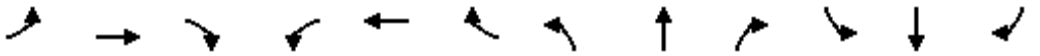
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	33.5	16.5	65.0	17.0	51.5	19.3	62.2
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 26	26.7	7.5	59.1	7.2	* 45	20.9	44.5
Max Q Clear Time (g_c+I1), s	30.0	28.6	6.6	53.0	10.2	49.2	11.7	49.7
Green Ext Time (p_c), s	0.0	0.0	0.0	4.8	0.0	0.0	0.5	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.4
HCM 2010 LOS	F

Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	13	73	35	16	862	32	1516
v/c Ratio	0.12	0.04	0.34	0.11	0.06	0.32	0.06	0.57
Control Delay	48.3	0.2	54.8	0.7	5.5	8.8	5.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	0.2	54.8	0.7	5.5	8.8	5.1	11.0
Queue Length 50th (ft)	22	0	60	0	3	153	6	241
Queue Length 95th (ft)	48	0	102	0	11	246	18	557
Internal Link Dist (ft)	1279		1144			653		566
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	243	367	343	443	306	2654	531	2683
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.21	0.08	0.05	0.32	0.06	0.57

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	12	12	45	22	32	15	766	27	29	1383	12
Future Volume (vph)	14	12	12	45	22	32	15	766	27	29	1383	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.99		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1810	1562		1723	1458	1770	3515		1766	3464	
Flt Permitted		0.85	1.00		0.78	1.00	0.13	1.00		0.30	1.00	
Satd. Flow (perm)		1571	1562		1396	1458	242	3515		551	3464	
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)	15	13	13	49	24	35	16	833	29	32	1503	13
RTOR Reduction (vph)	0	0	11	0	0	30	0	1	0	0	0	0
Lane Group Flow (vph)	0	28	2	0	73	5	16	861	0	32	1516	0
Confl. Peds. (#/hr)	2					2	26		9	9		26
Confl. Bikes (#/hr)			1						1			2
Heavy Vehicles (%)	2%	2%	2%	9%	2%	9%	2%	2%	2%	2%	4%	2%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		17.6	17.6		17.6	17.6	101.4	98.9		104.2	100.3	
Effective Green, g (s)		19.6	19.6		19.6	19.6	105.4	100.9		108.2	102.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.75	0.72		0.77	0.73	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		219	218		195	204	231	2533		477	2531	
v/s Ratio Prot							0.00	0.24		c0.00	c0.44	
v/s Ratio Perm		0.02	0.00		c0.05	0.00	0.05			0.05		
v/c Ratio		0.13	0.01		0.37	0.02	0.07	0.34		0.07	0.60	
Uniform Delay, d1		52.7	51.8		54.6	51.9	6.5	7.2		4.1	9.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		1.2	0.0	0.1	0.4		0.1	1.1	
Delay (s)		53.0	51.8		55.8	52.0	6.6	7.6		4.1	10.1	
Level of Service		D	D		E	D	A	A		A	B	
Approach Delay (s)		52.6			54.6			7.6			10.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	26	5	105	22	0
Future Vol, veh/h	163	26	5	105	22	0
Conflicting Peds, #/hr	0	9	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	20	3	2	2
Mvmt Flow	177	28	5	114	24	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	112	73	0	0	121	0
Stage 1	64	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	875	978	-	-	1467	-
Stage 1	949	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	968	-	-	1464	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	7.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	873	1464	-
HCM Lane V/C Ratio	-	-	0.235	0.016	-
HCM Control Delay (s)	-	-	10.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	121	185	15	5	4
Future Vol, veh/h	6	121	185	15	5	4
Conflicting Peds, #/hr	48	0	0	48	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	7	2	2
Mvmt Flow	7	132	201	16	5	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	265	0	-	0	403	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1299	-	-	-	603	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1240	-	-	-	546	746
Mov Cap-2 Maneuver	-	-	-	-	546	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1240	-	-	-	620
HCM Lane V/C Ratio	0.005	-	-	-	0.016
HCM Control Delay (s)	7.9	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	126	200	0	0	0
Future Vol, veh/h	0	126	200	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	137	217	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	354	217
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	137	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1353	-	-	-	644	823
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1353	-	-	-	644	823
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	890	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	1	6	196	4	28
Future Vol, veh/h	125	1	6	196	4	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	1	7	213	4	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	364	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1447	-	635	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1447	-	632	911
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	1447	-
HCM Lane V/C Ratio	0.04	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	152	1	7	201	1	18
Future Vol, veh/h	152	1	7	201	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	165	1	8	218	1	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	166	0	400	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	234	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1412	-	606	878
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1412	-	602	878
Mov Cap-2 Maneuver	-	-	-	-	602	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	805	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	857	-	-	1412	-
HCM Lane V/C Ratio	0.024	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

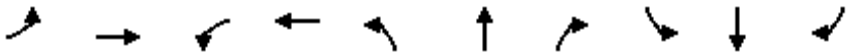
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	165	1	57	205	210	1	0	86	113	0	2
Future Vol, veh/h	4	165	1	57	205	210	1	0	86	113	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	93	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	179	1	61	220	226	1	0	93	123	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	446	0	0	180	0	0	644	756	180	689	643	333
Stage 1	-	-	-	-	-	-	188	188	-	455	455	-
Stage 2	-	-	-	-	-	-	456	568	-	234	188	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1114	-	-	1396	-	-	386	337	863	360	392	709
Stage 1	-	-	-	-	-	-	814	745	-	585	569	-
Stage 2	-	-	-	-	-	-	584	506	-	769	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1396	-	-	366	315	863	305	367	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	366	315	-	305	367	-
Stage 1	-	-	-	-	-	-	811	742	-	583	535	-
Stage 2	-	-	-	-	-	-	547	476	-	683	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	9.8	24.4
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1114	-	-	1396	-	-	308
HCM Lane V/C Ratio	0.111	0.004	-	-	0.044	-	-	0.406
HCM Control Delay (s)	9.8	8.2	0	-	7.7	0	-	24.4
HCM Lane LOS	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	1.9



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	98	298	410	185	253	685	223	184	1182	170
v/c Ratio	0.27	0.88	0.94	0.32	1.12	0.53	0.33	0.53	0.93	0.45
Control Delay	31.7	68.9	69.9	34.3	168.6	19.8	1.4	29.7	64.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0
Total Delay	31.7	68.9	69.9	34.3	168.6	19.8	1.4	29.7	77.3	10.6
Queue Length 50th (ft)	64	231	345	120	~281	217	0	113	664	11
Queue Length 95th (ft)	105	#411	#563	193	#485	278	2	166	#801	80
Internal Link Dist (ft)		623		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	384	339	434	574	225	1299	666	391	1276	382
Starvation Cap Reductn	0	0	0	0	0	0	0	0	110	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.88	0.94	0.32	1.12	0.53	0.33	0.47	1.01	0.45

Intersection Summary

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

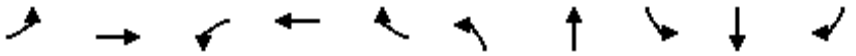
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	61	213	377	76	94	238	644	210	171	1099	158
Future Volume (veh/h)	90	61	213	377	76	94	238	644	210	171	1099	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.75		0.68	1.00		0.79	1.00		0.88	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1835	1900	1863	1833	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	98	66	232	410	83	102	253	685	223	184	1182	170
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	2	2	2	5	5	2	4	5	2
Cap, veh/h	351	58	204	386	227	278	242	1338	542	338	1276	469
Arrive On Green	0.07	0.22	0.22	0.19	0.35	0.35	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	1723	260	913	1774	647	795	1723	3438	1394	1740	3438	1265
Grp Volume(v), veh/h	98	0	298	410	0	185	253	685	223	184	1182	170
Grp Sat Flow(s),veh/h/ln	1723	0	1173	1774	0	1441	1723	1719	1394	1740	1719	1265
Q Serve(g_s), s	7.3	0.0	37.9	32.9	0.0	16.3	18.1	25.8	19.8	10.9	56.0	16.6
Cycle Q Clear(g_c), s	7.3	0.0	37.9	32.9	0.0	16.3	18.1	25.8	19.8	10.9	56.0	16.6
Prop In Lane	1.00		0.78	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	0	262	386	0	505	242	1338	542	338	1276	469
V/C Ratio(X)	0.28	0.00	1.14	1.06	0.00	0.37	1.04	0.51	0.41	0.54	0.93	0.36
Avail Cap(c_a), veh/h	378	0	262	386	0	505	242	1338	542	400	1276	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	0.85	0.85	0.85	0.81	0.81	0.81
Uniform Delay (d), s/veh	45.5	0.0	66.1	56.1	0.0	41.2	52.3	39.6	37.8	30.0	51.2	38.8
Incr Delay (d2), s/veh	0.4	0.0	98.5	62.9	0.0	0.4	65.4	1.2	1.9	0.8	10.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	19.4	24.8	0.0	6.5	15.8	12.5	7.9	5.2	28.5	6.0
LnGrp Delay(d),s/veh	46.0	0.0	164.6	119.0	0.0	41.6	117.7	40.8	39.7	30.8	62.0	40.6
LnGrp LOS	D		F	F		D	F	D	D	C	E	D
Approach Vol, veh/h		396			595			1161			1536	
Approach Delay, s/veh		135.2			94.9			57.4			55.9	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	67.0	16.3	64.7	18.9	70.1	38.0	43.0
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	16.1	61.1	* 12	* 55	19.1	58.1	* 31	* 36
Max Q Clear Time (g_c+I1), s	20.1	58.0	9.3	18.3	12.9	27.8	34.9	39.9
Green Ext Time (p_c), s	0.0	2.5	0.0	1.4	0.2	9.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	71.2
HCM 2010 LOS	E

Notes



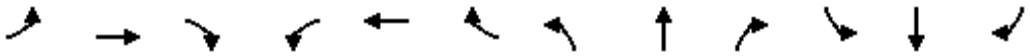
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	108	142	26	166	163	57	126	118	140	162
v/c Ratio	0.19	0.20	0.05	0.36	0.20	0.13	0.38	0.23	0.29	0.23
Control Delay	13.0	17.8	12.6	26.4	3.1	13.3	27.6	14.0	24.2	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	17.8	12.6	26.4	3.1	13.3	27.6	14.0	24.2	2.9
Queue Length 50th (ft)	24	29	5	57	0	14	45	30	50	0
Queue Length 95th (ft)	60	98	21	127	32	36	100	65	103	29
Internal Link Dist (ft)		900		741			306		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	763	1636	616	1399	1050	651	774	649	844	1026
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.04	0.12	0.16	0.09	0.16	0.18	0.17	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	107	24	24	153	150	52	102	14	109	129	149
Future Volume (veh/h)	99	107	24	24	153	150	52	102	14	109	129	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.90	0.94		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1791	1900	1863	1863	1863	1792	1706	1900	1827	1827	1810
Adj Flow Rate, veh/h	108	116	26	26	166	163	57	111	15	118	140	162
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	7	2	2	2	6	11	11	4	4	5
Cap, veh/h	518	437	98	540	479	604	496	365	49	546	506	590
Arrive On Green	0.12	0.31	0.31	0.07	0.26	0.26	0.10	0.25	0.25	0.12	0.28	0.28
Sat Flow, veh/h	1774	1417	318	1774	1863	1583	1707	1451	196	1740	1827	1454
Grp Volume(v), veh/h	108	0	142	26	166	163	57	0	126	118	140	162
Grp Sat Flow(s),veh/h/ln	1774	0	1735	1774	1863	1583	1707	0	1647	1740	1827	1454
Q Serve(g_s), s	2.6	0.0	4.1	0.7	4.8	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Cycle Q Clear(g_c), s	2.6	0.0	4.1	0.7	4.8	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	518	0	535	540	479	604	496	0	415	546	506	590
V/C Ratio(X)	0.21	0.00	0.27	0.05	0.35	0.27	0.11	0.00	0.30	0.22	0.28	0.27
Avail Cap(c_a), veh/h	1027	0	1759	738	1466	1443	895	0	798	910	885	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	17.2	15.2	20.0	14.1	14.4	0.0	20.0	13.9	18.7	13.5
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.0	0.4	0.2	0.1	0.0	0.4	0.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0	0.3	2.5	2.1	0.7	0.0	1.9	1.4	2.0	2.0
LnGrp Delay(d),s/veh	13.2	0.0	17.5	15.2	20.4	14.3	14.5	0.0	20.4	14.1	19.0	13.7
LnGrp LOS	B		B	B	C	B	B		C	B	B	B
Approach Vol, veh/h		250			355			183			420	
Approach Delay, s/veh		15.6			17.2			18.6			15.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.4	10.6	22.4	12.0	21.0	12.3	20.7
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.7	6.1	3.5	7.0	4.6	6.8	5.0	6.1
Green Ext Time (p_c), s	0.0	1.0	0.1	1.4	0.2	1.6	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	172	1256	855	262	1625	144	357	570	165	148	882	298
v/c Ratio	0.54	1.04	1.12	0.89	1.13	0.16	0.80	0.60	0.30	0.50	1.10	0.56
Control Delay	79.6	91.5	100.3	98.3	112.0	8.7	85.8	57.3	5.0	71.7	97.8	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.6	91.5	100.3	98.3	112.0	8.7	85.8	57.3	5.0	71.7	97.8	14.6
Queue Length 50th (ft)	95	~803	~790	289	~1105	31	201	291	0	75	~583	145
Queue Length 95th (ft)	135	#943	#1205	#458	#1289	70	261	369	42	m79	m#672	m166
Internal Link Dist (ft)		1011			836			810			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	442	1203	761	296	1441	875	460	956	559	444	805	532
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	1.04	1.12	0.89	1.13	0.16	0.78	0.60	0.30	0.33	1.10	0.56

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.

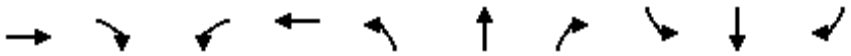
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1193	812	249	1544	137	343	547	158	138	820	277
Future Volume (veh/h)	163	1193	812	249	1544	137	343	547	158	138	820	277
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1827	1845	1863	1863	1845	1863	1863
Adj Flow Rate, veh/h	172	1256	855	262	1625	144	357	570	165	148	882	298
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	4	3	2	2	3	2	2
Cap, veh/h	255	1189	733	312	1524	774	433	999	441	230	806	355
Arrive On Green	0.07	0.34	0.34	0.18	0.43	0.43	0.13	0.28	0.28	0.07	0.23	0.23
Sat Flow, veh/h	3442	3539	1583	1774	3539	1553	3408	3539	1561	3408	3539	1561
Grp Volume(v), veh/h	172	1256	855	262	1625	144	357	570	165	148	882	298
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1553	1704	1770	1561	1704	1770	1561
Q Serve(g_s), s	8.3	57.1	44.3	24.3	73.2	8.7	17.4	23.4	9.0	7.2	38.7	31.0
Cycle Q Clear(g_c), s	8.3	57.1	44.3	24.3	73.2	8.7	17.4	23.4	9.0	7.2	38.7	31.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	1189	733	312	1524	774	433	999	441	230	806	355
V/C Ratio(X)	0.67	1.06	1.17	0.84	1.07	0.19	0.82	0.57	0.37	0.64	1.09	0.84
Avail Cap(c_a), veh/h	443	1189	733	312	1524	774	461	999	441	445	806	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.25	0.25
Uniform Delay (d), s/veh	76.7	56.5	20.7	67.7	48.4	23.6	72.4	52.2	19.1	77.3	65.6	62.7
Incr Delay (d2), s/veh	3.1	42.4	89.4	18.0	43.0	0.5	11.1	1.0	0.7	0.8	48.3	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	34.9	40.8	13.5	44.9	3.8	8.8	11.6	5.6	3.4	24.3	13.8
LnGrp Delay(d),s/veh	79.8	98.9	110.1	85.8	91.4	24.1	83.4	53.1	19.9	78.0	113.9	67.4
LnGrp LOS	E	F	F	F	F	C	F	D	B	E	F	E
Approach Vol, veh/h		2283			2031			1092			1328	
Approach Delay, s/veh		101.6			85.9			58.0			99.5	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.6	43.0	37.4	61.0	19.3	52.3	17.7	80.7
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 21	36.7	26.5	55.1	20.2	* 37	19.9	60.5
Max Q Clear Time (g_c+I1), s	19.4	40.7	26.3	59.1	9.2	25.4	10.3	75.2
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.3	4.3	0.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	89.4
HCM 2010 LOS	F

Notes



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	215	187	128	89	197	1251	447	325	480	85
v/c Ratio	0.76	0.40	0.56	0.18	0.49	0.83	0.61	0.84	0.26	0.19
Control Delay	85.5	8.1	60.6	33.4	19.5	50.7	23.5	69.0	21.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.5	8.1	60.6	33.4	19.5	50.7	23.5	69.0	21.0	2.8
Queue Length 50th (ft)	252	0	121	54	86	693	220	307	150	0
Queue Length 95th (ft)	#378	63	186	106	127	803	353	#464	191	20
Internal Link Dist (ft)	615			900		3090			653	
Turn Bay Length (ft)					400		250	420		120
Base Capacity (vph)	292	471	228	497	408	1587	757	411	1922	480
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.40	0.56	0.18	0.48	0.79	0.59	0.79	0.25	0.18

Intersection Summary

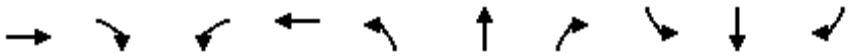
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	71	172	118	39	43	181	1151	411	299	442	78
Future Volume (veh/h)	127	71	172	118	39	43	181	1151	411	299	442	78
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.79		0.75	0.94		0.83	0.93		0.91	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1822	1743	1827	1771	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	138	77	187	128	42	47	197	1251	447	325	480	85
Adj No. of Lanes	0	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	9	4	2	2	4	4	2	4	11	5
Cap, veh/h	210	97	368	206	217	243	520	1533	638	364	1713	710
Arrive On Green	0.23	0.23	0.23	0.06	0.32	0.32	0.08	0.44	0.44	0.16	0.53	0.53
Sat Flow, veh/h	766	427	1105	1740	683	764	1740	3471	1444	1740	3252	1348
Grp Volume(v), veh/h	215	0	187	128	0	89	197	1251	447	325	480	85
Grp Sat Flow(s),veh/h/ln	1194	0	1105	1740	0	1447	1740	1736	1444	1740	1626	1348
Q Serve(g_s), s	28.3	0.0	23.6	9.3	0.0	7.5	10.2	52.5	41.8	22.8	13.7	5.3
Cycle Q Clear(g_c), s	28.3	0.0	23.6	9.3	0.0	7.5	10.2	52.5	41.8	22.8	13.7	5.3
Prop In Lane	0.64		1.00	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	307	0	368	206	0	459	520	1533	638	364	1713	710
V/C Ratio(X)	0.70	0.00	0.51	0.62	0.00	0.19	0.38	0.82	0.70	0.89	0.28	0.12
Avail Cap(c_a), veh/h	321	0	380	206	0	476	520	1707	710	466	2067	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.7	0.0	48.4	47.4	0.0	41.4	21.7	40.7	37.7	48.4	21.9	20.0
Incr Delay (d2), s/veh	6.3	0.0	1.1	5.1	0.0	0.2	0.3	3.2	3.2	15.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.0	7.3	4.7	0.0	3.0	4.9	25.9	17.2	16.2	6.2	2.0
LnGrp Delay(d),s/veh	67.0	0.0	49.5	52.6	0.0	41.6	22.0	43.8	40.8	64.0	22.1	20.1
LnGrp LOS	E		D	D		D	C	D	D	E	C	C
Approach Vol, veh/h		402			217			1895			890	
Approach Delay, s/veh		58.9			48.1			40.9			37.2	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	91.8		58.1	31.2	77.6	15.0	43.1
Change Period (Y+Rc), s	5.9	5.9		* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	11.1	104.1		* 53	35.1	80.1	* 7.9	* 38
Max Q Clear Time (g_c+I1), s	12.2	15.7		9.5	24.8	54.5	11.3	30.3
Green Ext Time (p_c), s	0.0	6.1		0.6	0.5	17.2	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.5
HCM 2010 LOS	D

Notes



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	164	232	410	185	253	685	223	186	1182	170
v/c Ratio	0.59	0.48	0.92	0.27	0.93	0.47	0.31	0.52	0.91	0.45
Control Delay	68.7	32.3	66.7	26.1	123.6	14.2	1.1	26.5	60.8	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0
Total Delay	68.7	32.3	66.7	26.1	123.6	14.2	1.1	26.5	71.8	11.4
Queue Length 50th (ft)	165	131	349	102	245	99	0	106	657	16
Queue Length 95th (ft)	253	208	#458	165	#420	123	2	155	#763	86
Internal Link Dist (ft)	623			900		3090			653	
Turn Bay Length (ft)					400		250	420		120
Base Capacity (vph)	280	487	446	683	275	1464	722	370	1304	382
Starvation Cap Reductn	0	0	0	0	0	0	0	0	124	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.48	0.92	0.27	0.92	0.47	0.31	0.50	1.00	0.45

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	61	213	377	76	94	238	644	210	171	1099	158
Future Volume (veh/h)	90	61	213	377	76	94	238	644	210	171	1099	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.75		0.68	0.89		0.82	1.00		0.89	0.99		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1831	1827	1863	1833	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	98	66	232	410	83	102	253	685	223	186	1182	170
Adj No. of Lanes	0	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.93	0.93
Percent Heavy Veh, %	2	2	4	2	2	2	5	5	2	4	5	2
Cap, veh/h	180	105	436	411	272	335	288	1464	600	362	1321	490
Arrive On Green	0.22	0.22	0.22	0.16	0.41	0.41	0.13	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	658	469	1059	1774	662	814	1723	3438	1408	1740	3438	1274
Grp Volume(v), veh/h	164	0	232	410	0	185	253	685	223	186	1182	170
Grp Sat Flow(s),veh/h/ln	1127	0	1059	1774	0	1476	1723	1719	1408	1740	1719	1274
Q Serve(g_s), s	21.8	0.0	30.9	26.9	0.0	14.3	17.8	24.3	18.4	10.8	54.8	16.1
Cycle Q Clear(g_c), s	22.3	0.0	30.9	26.9	0.0	14.3	17.8	24.3	18.4	10.8	54.8	16.1
Prop In Lane	0.60		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	0	436	411	0	607	288	1464	600	362	1321	490
V/C Ratio(X)	0.58	0.00	0.53	1.00	0.00	0.30	0.88	0.47	0.37	0.51	0.89	0.35
Avail Cap(c_a), veh/h	285	0	436	411	0	607	301	1464	600	372	1321	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	0.85	0.85	0.85	0.81	0.81	0.81
Uniform Delay (d), s/veh	59.8	0.0	45.7	46.8	0.0	33.7	48.3	35.0	33.3	27.9	49.1	37.2
Incr Delay (d2), s/veh	2.8	0.0	1.2	43.2	0.0	0.3	20.3	0.9	1.5	0.7	8.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	9.2	10.9	0.0	5.9	13.2	11.7	7.4	5.2	27.6	5.9
LnGrp Delay(d),s/veh	62.7	0.0	47.0	90.0	0.0	34.0	68.6	35.9	34.8	28.6	57.1	38.8
LnGrp LOS	E		D	F		C	E	D	C	C	E	D
Approach Vol, veh/h		396			595			1161			1538	
Approach Delay, s/veh		53.5			72.5			42.8			51.7	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	69.2		75.0	18.7	76.3	32.0	43.0
Change Period (Y+Rc), s	5.9	5.9		* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	21.1	62.1		* 68	13.7	69.5	* 25	* 36
Max Q Clear Time (g_c+I1), s	19.8	56.8		16.3	12.8	26.3	28.9	32.9
Green Ext Time (p_c), s	0.1	4.2		1.5	0.0	10.1	0.0	0.7

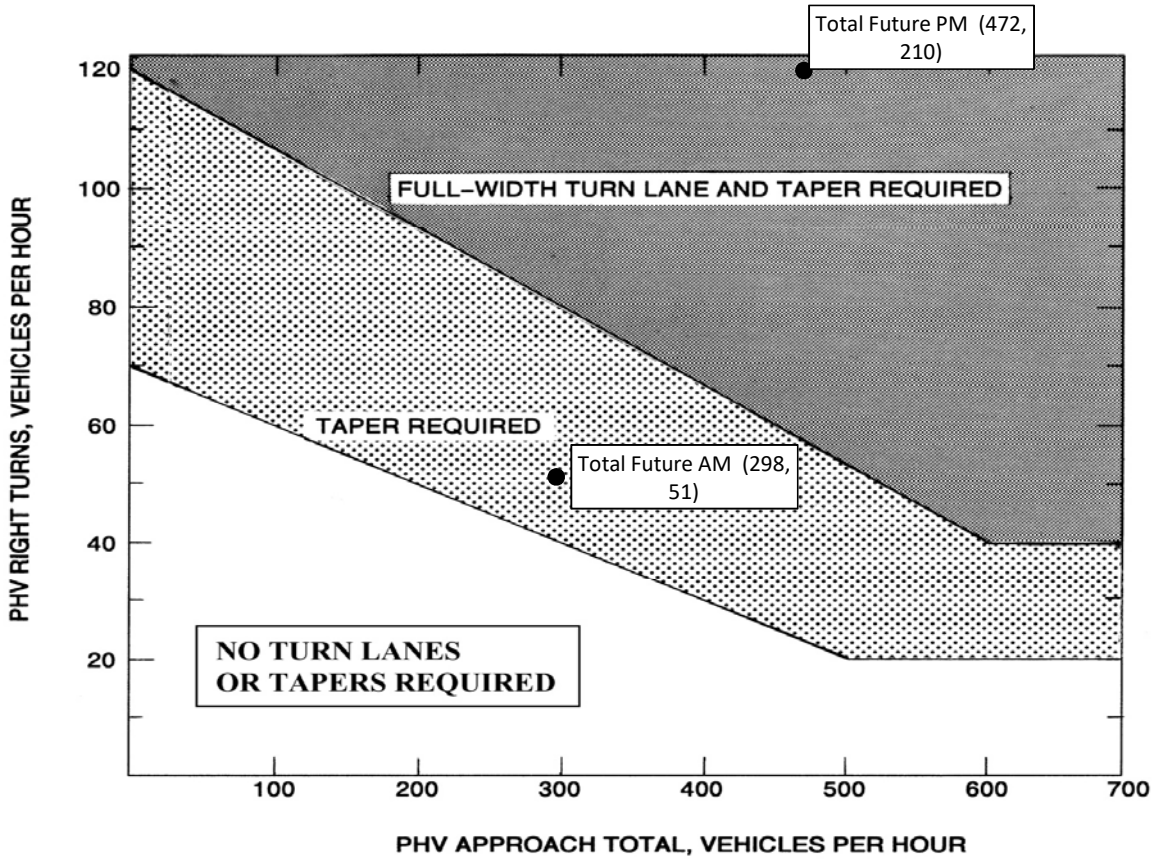
Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

Notes

APPENDIX H
TURN LANE WARRANTS

University Drive & Site Driveway WB Right Turn Lane Warrant

F-72



Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND

PHV - Peak Hour Volume (also Design Hourly Volume equivalent)

Adjustment for Right Turns

For posted speeds at or under 45 mph, PHV right turns > 40, and PHV total < 300.
Adjusted right turns = PHV Right Turns - 20
If PHV is not known use formula: PHV = ADT x K x D

K = the percent of AADT occurring in the peak hour
D = the percent of traffic in the peak direction of flow

Note: An average of 11% for K x D will suffice.

FIGURE 3-26 GUIDELINES FOR RIGHT TURN TREATMENT (2-LANE HIGHWAY)

Source: VDOT Road Design Manual Page F-72 - Figure 3-26.

APPENDIX I
2040 FUTURE CONDITIONS WITH DEVELOPMENT
SYNCHRO WORKSHEETS

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	54	14	36	28	3	1462	27	706
v/c Ratio	0.37	0.05	0.30	0.12	0.00	0.51	0.09	0.24
Control Delay	65.2	0.3	63.8	1.0	2.7	7.1	2.9	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	65.2	0.3	63.8	1.0	2.7	7.4	2.9	3.5
Queue Length 50th (ft)	47	0	31	0	0	257	3	51
Queue Length 95th (ft)	89	0	65	0	2	375	10	137
Internal Link Dist (ft)	1279		1144			653		219
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	160	295	317	447	681	2858	338	2885
Starvation Cap Reductn	0	0	0	0	0	713	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.05	0.11	0.06	0.00	0.68	0.08	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	29	13	25	8	26	3	1391	42	25	634	16
Future Volume (vph)	20	29	13	25	8	26	3	1391	42	25	634	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.98	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1672	1467	1765	3520		1736	3402	
Flt Permitted		0.85	1.00		0.74	1.00	0.38	1.00		0.15	1.00	
Satd. Flow (perm)		1562	1583		1292	1467	710	3520		266	3402	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.92	0.92	0.92
Adj. Flow (vph)	22	32	14	27	9	28	3	1419	43	27	689	17
RTOR Reduction (vph)	0	0	13	0	0	26	0	1	0	0	1	0
Lane Group Flow (vph)	0	54	1	0	36	2	3	1461	0	27	705	0
Confl. Peds. (#/hr)	2					2	5		3	3		5
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	5%	2%	2%	12%	2%	8%	2%	2%	2%	4%	5%	31%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		9.9	9.9		9.9	9.9	107.9	106.8		113.1	109.4	
Effective Green, g (s)		11.9	11.9		11.9	11.9	111.9	108.8		117.1	111.4	
Actuated g/C Ratio		0.09	0.09		0.09	0.09	0.80	0.78		0.84	0.80	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		132	134		109	124	590	2735		282	2707	
v/s Ratio Prot							0.00	c0.42		c0.00	0.21	
v/s Ratio Perm		c0.03	0.00		0.03	0.00	0.00			0.08		
v/c Ratio		0.41	0.01		0.33	0.02	0.01	0.53		0.10	0.26	
Uniform Delay, d1		60.7	58.7		60.3	58.7	2.8	5.9		3.7	3.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1	0.0		1.8	0.1	0.0	0.8		0.1	0.2	
Delay (s)		62.8	58.7		62.1	58.8	2.8	6.7		3.8	3.9	
Level of Service		E	E		E	E	A	A		A	A	
Approach Delay (s)		61.9			60.6			6.7			3.9	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	111	16	1	105	12	1
Future Vol, veh/h	111	16	1	105	12	1
Conflicting Peds, #/hr	1	4	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	2	2	4	11	2
Mvmt Flow	121	17	1	114	13	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	86	62	0	0	115	0
Stage 1	58	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.46	6.22	-	-	4.21	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.318	-	-	2.299	-
Pot Cap-1 Maneuver	905	1003	-	-	1420	-
Stage 1	954	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	896	999	-	-	1420	-
Mov Cap-2 Maneuver	896	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	908	1420	-
HCM Lane V/C Ratio	-	-	0.152	0.009	-
HCM Control Delay (s)	-	-	9.7	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	115	124	4	6	3
Future Vol, veh/h	1	115	124	4	6	3
Conflicting Peds, #/hr	17	0	0	17	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	1	125	135	4	7	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	156	0	-	0	281	154
Stage 1	-	-	-	-	154	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1424	-	-	-	709	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1401	-	-	-	686	878
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1401	-	-	-	740
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	121	128	0	0	0
Future Vol, veh/h	0	121	128	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	132	139	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	139	0	-	0	271	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1445	-	-	-	718	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1445	-	-	-	718	909
Mov Cap-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	894	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	5	7	125	3	2
Future Vol, veh/h	116	5	7	125	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	3	2	2
Mvmt Flow	126	5	8	136	3	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	131	0	281	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1454	-	709	921
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	876	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1454	-	705	921
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	778	-	-	1454	-
HCM Lane V/C Ratio	0.007	-	-	0.005	-
HCM Control Delay (s)	9.7	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	113	5	17	131	1	10
Future Vol, veh/h	113	5	17	131	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	123	5	18	142	1	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	128	0	304	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1458	-	688	924
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1458	-	679	924
Mov Cap-2 Maneuver	-	-	-	-	679	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1458	-
HCM Lane V/C Ratio	0.013	-	-	0.013	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

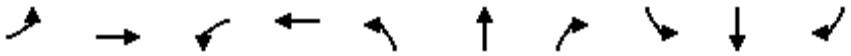
Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	118	4	103	144	51	0	0	48	204	0	4
Future Vol, veh/h	1	118	4	103	144	51	0	0	48	204	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	128	4	112	157	55	0	0	52	222	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	212	0	0	132	0	0	543	568	130	567	543	185
Stage 1	-	-	-	-	-	-	132	132	-	409	409	-
Stage 2	-	-	-	-	-	-	411	436	-	158	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1358	-	-	1453	-	-	451	432	920	434	447	857
Stage 1	-	-	-	-	-	-	871	787	-	619	596	-
Stage 2	-	-	-	-	-	-	618	580	-	844	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1453	-	-	418	394	920	381	407	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	418	394	-	381	407	-
Stage 1	-	-	-	-	-	-	870	786	-	618	544	-
Stage 2	-	-	-	-	-	-	561	529	-	795	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.7	9.1	26.8
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	920	1358	-	-	1453	-	-	385
HCM Lane V/C Ratio	0.057	0.001	-	-	0.077	-	-	0.587
HCM Control Delay (s)	9.1	7.7	0	-	7.7	0	-	26.8
HCM Lane LOS	A	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	3.6



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	264	128	89	197	1309	447	325	502	85
v/c Ratio	0.34	0.82	0.47	0.24	0.50	0.98	0.67	0.84	0.31	0.19
Control Delay	44.0	71.5	47.1	39.6	22.8	73.5	28.3	71.9	27.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	71.5	47.1	39.6	22.8	73.5	28.3	71.9	27.4	1.0
Queue Length 50th (ft)	116	236	106	58	97	799	234	310	180	0
Queue Length 95th (ft)	176	#415	164	113	151	#1012	390	#481	238	0
Internal Link Dist (ft)		615		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	421	321	360	450	414	1332	671	408	1630	443
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.82	0.36	0.20	0.48	0.98	0.67	0.80	0.31	0.19

Intersection Summary

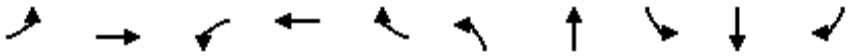
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	71	172	118	39	43	181	1204	411	299	462	78
Future Volume (veh/h)	127	71	172	118	39	43	181	1204	411	299	462	78
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.82		0.75	0.94		0.76	0.93		0.90	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1772	1900	1827	1771	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	138	77	187	128	42	47	197	1309	447	325	502	85
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	3	3	4	2	2	4	4	2	4	11	5
Cap, veh/h	369	86	208	213	148	165	498	1393	573	363	1592	653
Arrive On Green	0.08	0.23	0.23	0.08	0.23	0.23	0.09	0.40	0.40	0.18	0.49	0.49
Sat Flow, veh/h	1723	369	895	1740	647	724	1740	3471	1429	1740	3252	1334
Grp Volume(v), veh/h	138	0	264	128	0	89	197	1309	447	325	502	85
Grp Sat Flow(s),veh/h/ln	1723	0	1264	1740	0	1372	1740	1736	1429	1740	1626	1334
Q Serve(g_s), s	10.0	0.0	33.7	9.1	0.0	8.9	10.8	60.3	45.3	25.1	15.5	5.8
Cycle Q Clear(g_c), s	10.0	0.0	33.7	9.1	0.0	8.9	10.8	60.3	45.3	25.1	15.5	5.8
Prop In Lane	1.00		0.71	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	369	0	294	213	0	313	498	1393	573	363	1592	653
V/C Ratio(X)	0.37	0.00	0.90	0.60	0.00	0.28	0.40	0.94	0.78	0.90	0.32	0.13
Avail Cap(c_a), veh/h	400	0	294	357	0	396	520	1398	576	441	1701	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	61.9	46.7	0.0	52.9	24.3	47.9	43.4	53.1	25.6	23.2
Incr Delay (d2), s/veh	0.6	0.0	27.9	2.0	0.0	0.5	0.4	12.6	7.1	17.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	14.1	4.5	0.0	3.4	5.3	31.3	19.0	16.3	7.0	2.1
LnGrp Delay(d),s/veh	43.6	0.0	89.8	48.7	0.0	53.4	24.7	60.5	50.5	70.5	25.8	23.3
LnGrp LOS	D		F	D		D	C	E	D	E	C	C
Approach Vol, veh/h		402			217			1953			912	
Approach Delay, s/veh		73.9			50.6			54.6			41.5	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	85.3	19.1	43.1	33.5	70.6	18.4	43.8
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	15.0	85.0	* 15	* 46	35.0	65.0	* 25	* 36
Max Q Clear Time (g_c+I1), s	12.8	17.5	12.0	10.9	27.1	62.3	11.1	35.7
Green Ext Time (p_c), s	0.1	6.4	0.1	0.6	0.5	2.4	0.2	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Notes



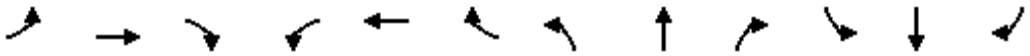
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	179	300	12	65	77	24	60	148	120	66
v/c Ratio	0.24	0.33	0.02	0.13	0.10	0.07	0.20	0.31	0.24	0.09
Control Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	16.6	13.9	26.4	1.8	14.4	25.7	16.7	21.6	2.9
Queue Length 50th (ft)	40	70	2	22	0	6	21	42	33	0
Queue Length 95th (ft)	110	229	14	67	13	21	57	85	93	17
Internal Link Dist (ft)		900		741			229		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	870	1624	613	1465	959	616	749	679	895	1084
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.18	0.02	0.04	0.08	0.04	0.08	0.22	0.13	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	235	41	11	60	71	22	46	9	136	110	61
Future Volume (veh/h)	165	235	41	11	60	71	22	46	9	136	110	61
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	0.96		0.90	0.94		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1855	1900	1863	1863	1792	1610	1555	1900	1827	1810	1863
Adj Flow Rate, veh/h	179	255	45	12	65	77	24	50	10	148	120	66
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	6	18	20	20	4	5	2
Cap, veh/h	617	513	90	411	476	569	457	308	62	596	559	675
Arrive On Green	0.13	0.33	0.33	0.05	0.26	0.26	0.07	0.25	0.25	0.13	0.31	0.31
Sat Flow, veh/h	1774	1533	271	1774	1863	1473	1533	1233	247	1740	1810	1523
Grp Volume(v), veh/h	179	0	300	12	65	77	24	0	60	148	120	66
Grp Sat Flow(s),veh/h/ln	1774	0	1804	1774	1863	1473	1533	0	1480	1740	1810	1523
Q Serve(g_s), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Cycle Q Clear(g_c), s	4.4	0.0	9.0	0.3	1.8	2.3	0.7	0.0	2.1	3.7	3.3	1.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	617	0	603	411	476	569	457	0	369	596	559	675
V/C Ratio(X)	0.29	0.00	0.50	0.03	0.14	0.14	0.05	0.00	0.16	0.25	0.21	0.10
Avail Cap(c_a), veh/h	1095	0	1786	636	1431	1325	853	0	700	941	856	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	18.0	16.5	19.4	13.6	16.1	0.0	19.9	13.3	17.3	11.2
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	4.5	0.2	1.0	1.0	0.3	0.0	0.9	1.8	1.7	0.7
LnGrp Delay(d),s/veh	13.3	0.0	18.6	16.6	19.6	13.8	16.1	0.0	20.1	13.5	17.5	11.2
LnGrp LOS	B		B	B	B	B	B		C	B	B	B
Approach Vol, veh/h		479			154			84			334	
Approach Delay, s/veh		16.6			16.4			18.9			14.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	26.6	8.6	25.0	12.8	21.3	12.7	21.0
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.3	11.0	2.7	5.3	6.4	4.3	5.7	4.1
Green Ext Time (p_c), s	0.0	2.2	0.0	0.9	0.5	0.7	0.3	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.1
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	239	1336	159	58	1223	230	738	1408	154	190	337	287
v/c Ratio	0.59	0.89	0.16	0.54	1.01	0.29	1.15	1.27	0.24	0.93	0.52	0.55
Control Delay	68.4	48.6	1.9	86.7	77.3	11.1	138.4	168.6	1.8	116.2	57.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	48.6	1.9	86.7	77.3	11.1	138.4	168.6	1.8	116.2	57.7	9.7
Queue Length 50th (ft)	115	654	4	56	~645	50	~436	~908	0	97	157	0
Queue Length 95th (ft)	158	#805	23	107	#854	115	#565	#1048	11	#176	211	86
Internal Link Dist (ft)		998			836			811			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	524	1506	964	109	1207	791	640	1113	631	204	651	521
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.89	0.16	0.53	1.01	0.29	1.15	1.27	0.24	0.93	0.52	0.55

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 (veh/h)	220	1229	146	53	1125	212	686	1309	143	175	310	264
Future Volume (veh/h)	220	1229	146	53	1125	212	686	1309	143	175	310	264
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1845	1810	1827	1845	1845	1863	1863	1845	1810	1792	1827
Adj Flow Rate, veh/h	239	1336	159	58	1223	230	738	1408	154	190	337	287
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Percent Heavy Veh, %	2	3	5	4	3	3	2	2	3	5	6	4
Cap, veh/h	335	1428	912	104	1269	662	642	1114	489	205	663	298
Arrive On Green	0.10	0.41	0.41	0.06	0.36	0.36	0.19	0.31	0.31	0.06	0.19	0.19
Sat Flow, veh/h	3442	3505	1535	1740	3505	1564	3442	3539	1553	3343	3406	1529
Grp Volume(v), veh/h	239	1336	159	58	1223	230	738	1408	154	190	337	287
Grp Sat Flow(s),veh/h/ln	1721	1752	1535	1740	1752	1564	1721	1770	1553	1672	1703	1529
Q Serve(g_s), s	10.1	54.8	3.6	4.9	51.3	14.9	28.0	47.2	8.6	8.5	13.3	27.9
Cycle Q Clear(g_c), s	10.1	54.8	3.6	4.9	51.3	14.9	28.0	47.2	8.6	8.5	13.3	27.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	1428	912	104	1269	662	642	1114	489	205	663	298
V/C Ratio(X)	0.71	0.94	0.17	0.56	0.96	0.35	1.15	1.26	0.32	0.93	0.51	0.96
Avail Cap(c_a), veh/h	525	1428	912	110	1269	662	642	1114	489	205	663	298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	65.7	42.6	4.5	68.6	46.9	29.2	61.0	51.4	22.5	70.1	54.0	59.9
Incr Delay (d2), s/veh	2.8	12.8	0.4	5.4	18.0	1.4	84.1	126.2	0.5	41.3	0.8	41.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	29.1	2.1	2.5	28.0	6.7	20.8	42.6	4.4	5.1	6.3	15.2
LnGrp Delay(d),s/veh	68.5	55.3	4.9	74.0	64.9	30.7	145.1	177.6	23.0	111.4	54.8	101.1
LnGrp LOS	E	E	A	E	E	C	F	F	C	F	D	F
Approach Vol, veh/h		1734			1511			2300			814	
Approach Delay, s/veh		52.5			60.0			156.8			84.4	
Approach LOS		D			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	33.5	16.5	65.0	17.0	51.5	19.7	61.8
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 26	26.7	7.5	59.1	7.2	* 45	20.9	44.5
Max Q Clear Time (g_c+I1), s	30.0	29.9	6.9	56.8	10.5	49.2	12.1	53.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.0	0.5	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.1
HCM 2010 LOS	F

Notes

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	13	73	35	16	897	32	1580
v/c Ratio	0.12	0.04	0.34	0.11	0.06	0.34	0.07	0.59
Control Delay	48.3	0.2	54.8	0.7	5.5	8.9	5.1	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	0.2	54.8	0.7	5.5	8.9	5.1	11.4
Queue Length 50th (ft)	22	0	60	0	3	162	6	260
Queue Length 95th (ft)	48	0	102	0	11	258	18	600
Internal Link Dist (ft)	1279		1144			653		566
Turn Bay Length (ft)					150		100	
Base Capacity (vph)	243	367	343	443	290	2654	515	2683
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.21	0.08	0.06	0.34	0.06	0.59

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	12	12	45	22	32	15	799	27	29	1442	12
Future Volume (vph)	14	12	12	45	22	32	15	799	27	29	1442	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.6	4.6		4.6	4.6	4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.99		1.00	0.98	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	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1810	1562		1723	1458	1770	3516		1767	3464	
Flt Permitted		0.85	1.00		0.78	1.00	0.12	1.00		0.28	1.00	
Satd. Flow (perm)		1571	1562		1396	1458	220	3516		528	3464	
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)	15	13	13	49	24	35	16	868	29	32	1567	13
RTOR Reduction (vph)	0	0	11	0	0	30	0	1	0	0	0	0
Lane Group Flow (vph)	0	28	2	0	73	5	16	896	0	32	1580	0
Confl. Peds. (#/hr)	2					2	26		9	9		26
Confl. Bikes (#/hr)			1						1			2
Heavy Vehicles (%)	2%	2%	2%	9%	2%	9%	2%	2%	2%	2%	4%	2%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6			2		
Actuated Green, G (s)		17.6	17.6		17.6	17.6	101.4	98.9		104.2	100.3	
Effective Green, g (s)		19.6	19.6		19.6	19.6	105.4	100.9		108.2	102.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.75	0.72		0.77	0.73	
Clearance Time (s)		6.6	6.6		6.6	6.6	6.5	6.5		6.5	6.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		219	218		195	204	215	2534		460	2531	
v/s Ratio Prot							0.00	0.25		c0.00	c0.46	
v/s Ratio Perm		0.02	0.00		c0.05	0.00	0.05			0.05		
v/c Ratio		0.13	0.01		0.37	0.02	0.07	0.35		0.07	0.62	
Uniform Delay, d1		52.7	51.8		54.6	51.9	7.0	7.3		4.1	9.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		1.2	0.0	0.1	0.4		0.1	1.2	
Delay (s)		53.0	51.8		55.8	52.0	7.1	7.7		4.2	10.5	
Level of Service		D	D		E	D	A	A		A	B	
Approach Delay (s)		52.6			54.6			7.7			10.4	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.1
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	163	26	5	105	22	0
Future Vol, veh/h	163	26	5	105	22	0
Conflicting Peds, #/hr	0	9	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	6	20	3	2	2
Mvmt Flow	177	28	5	114	24	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	112	73	0	0	121	0
Stage 1	64	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.46	6.26	-	-	4.12	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	-	-	2.218	-
Pot Cap-1 Maneuver	875	978	-	-	1467	-
Stage 1	949	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	859	968	-	-	1464	-
Mov Cap-2 Maneuver	859	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	7.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	873	1464	-
HCM Lane V/C Ratio	-	-	0.235	0.016	-
HCM Control Delay (s)	-	-	10.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	121	185	15	5	4
Future Vol, veh/h	6	121	185	15	5	4
Conflicting Peds, #/hr	48	0	0	48	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	3	2	7	2	2
Mvmt Flow	7	132	201	16	5	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	265	0	-	0	403	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1299	-	-	-	603	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1240	-	-	-	546	746
Mov Cap-2 Maneuver	-	-	-	-	546	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1240	-	-	-	620
HCM Lane V/C Ratio	0.005	-	-	-	0.016
HCM Control Delay (s)	7.9	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	126	200	0	0	0
Future Vol, veh/h	0	126	200	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	137	217	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	354	217
Stage 1	-	-	-	-	217	-
Stage 2	-	-	-	-	137	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1353	-	-	-	644	823
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1353	-	-	-	644	823
Mov Cap-2 Maneuver	-	-	-	-	644	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	890	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	1	6	196	4	28
Future Vol, veh/h	125	1	6	196	4	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	1	7	213	4	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	364	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1447	-	635	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1447	-	632	911
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	811	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	1447	-
HCM Lane V/C Ratio	0.04	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	152	1	7	201	1	18
Future Vol, veh/h	152	1	7	201	1	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	165	1	8	218	1	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	166	0	400	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	234	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1412	-	606	878
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1412	-	602	878
Mov Cap-2 Maneuver	-	-	-	-	602	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	805	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	857	-	-	1412	-
HCM Lane V/C Ratio	0.024	-	-	0.005	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

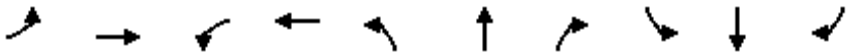
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	165	1	57	205	210	1	0	86	113	0	2
Future Vol, veh/h	4	165	1	57	205	210	1	0	86	113	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	93	93	93	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	179	1	61	220	226	1	0	93	123	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	446	0	0	180	0	0	644	756	180	689	643	333
Stage 1	-	-	-	-	-	-	188	188	-	455	455	-
Stage 2	-	-	-	-	-	-	456	568	-	234	188	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1114	-	-	1396	-	-	386	337	863	360	392	709
Stage 1	-	-	-	-	-	-	814	745	-	585	569	-
Stage 2	-	-	-	-	-	-	584	506	-	769	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1114	-	-	1396	-	-	366	315	863	305	367	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	366	315	-	305	367	-
Stage 1	-	-	-	-	-	-	811	742	-	583	535	-
Stage 2	-	-	-	-	-	-	547	476	-	683	742	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	9.8	24.4
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1114	-	-	1396	-	-	308
HCM Lane V/C Ratio	0.111	0.004	-	-	0.044	-	-	0.406
HCM Control Delay (s)	9.8	8.2	0	-	7.7	0	-	24.4
HCM Lane LOS	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	1.9



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	98	298	410	185	253	717	223	186	1235	170
v/c Ratio	0.27	0.88	0.94	0.32	1.12	0.55	0.34	0.55	0.97	0.45
Control Delay	31.7	68.9	69.9	34.3	168.7	19.9	1.4	30.5	70.6	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	0.0
Total Delay	31.7	68.9	69.9	34.3	168.7	19.9	1.4	30.5	94.6	10.6
Queue Length 50th (ft)	64	231	345	120	~281	226	0	114	711	11
Queue Length 95th (ft)	105	#411	#563	193	#482	288	2	168	#865	80
Internal Link Dist (ft)		623		900		3090			653	
Turn Bay Length (ft)					170		250	420		120
Base Capacity (vph)	384	339	434	574	225	1297	659	378	1276	382
Starvation Cap Reductn	0	0	0	0	0	0	0	0	107	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.88	0.94	0.32	1.12	0.55	0.34	0.49	1.06	0.45

Intersection Summary

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

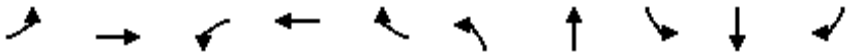
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	61	213	377	76	94	238	674	210	171	1149	158
Future Volume (veh/h)	90	61	213	377	76	94	238	674	210	171	1149	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.75		0.68	1.00		0.79	1.00		0.88	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1835	1900	1863	1833	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	98	66	232	410	83	102	253	717	223	186	1235	170
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.93	0.93
Percent Heavy Veh, %	5	2	2	2	2	2	5	5	2	4	5	2
Cap, veh/h	351	58	204	386	227	278	233	1335	541	330	1276	469
Arrive On Green	0.07	0.22	0.22	0.19	0.35	0.35	0.11	0.39	0.39	0.09	0.37	0.37
Sat Flow, veh/h	1723	260	913	1774	647	795	1723	3438	1393	1740	3438	1265
Grp Volume(v), veh/h	98	0	298	410	0	185	253	717	223	186	1235	170
Grp Sat Flow(s),veh/h/ln	1723	0	1173	1774	0	1441	1723	1719	1393	1740	1719	1265
Q Serve(g_s), s	7.3	0.0	37.9	32.9	0.0	16.3	18.1	27.4	19.8	11.0	59.9	16.6
Cycle Q Clear(g_c), s	7.3	0.0	37.9	32.9	0.0	16.3	18.1	27.4	19.8	11.0	59.9	16.6
Prop In Lane	1.00		0.78	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	0	262	386	0	505	233	1335	541	330	1276	469
V/C Ratio(X)	0.28	0.00	1.14	1.06	0.00	0.37	1.09	0.54	0.41	0.56	0.97	0.36
Avail Cap(c_a), veh/h	378	0	262	386	0	505	233	1335	541	391	1276	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	0.83	0.83	0.83	0.78	0.78	0.78
Uniform Delay (d), s/veh	45.5	0.0	66.1	56.1	0.0	41.2	55.4	40.2	37.8	30.3	52.5	38.8
Incr Delay (d2), s/veh	0.4	0.0	98.5	62.9	0.0	0.4	78.9	1.3	1.9	0.9	15.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	19.4	24.8	0.0	6.5	16.0	13.3	7.9	5.3	31.3	6.0
LnGrp Delay(d),s/veh	46.0	0.0	164.6	119.0	0.0	41.6	134.3	41.5	39.8	31.2	68.3	40.5
LnGrp LOS	D		F	F		D	F	D	D	C	E	D
Approach Vol, veh/h		396			595			1193			1591	
Approach Delay, s/veh		135.2			94.9			60.8			61.0	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	67.0	16.3	64.7	19.1	69.9	38.0	43.0
Change Period (Y+Rc), s	5.9	5.9	* 7.1	* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	16.1	61.1	* 12	* 55	19.1	58.1	* 31	* 36
Max Q Clear Time (g_c+I1), s	20.1	61.9	9.3	18.3	13.0	29.4	34.9	39.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.2	9.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.1
HCM 2010 LOS	E

Notes



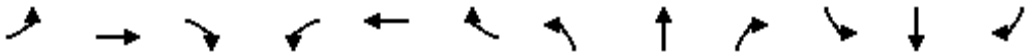
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	108	142	26	166	163	57	126	118	140	162
v/c Ratio	0.19	0.20	0.05	0.36	0.20	0.13	0.38	0.23	0.29	0.23
Control Delay	13.0	17.8	12.6	26.4	3.1	13.3	27.6	14.0	24.2	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	17.8	12.6	26.4	3.1	13.3	27.6	14.0	24.2	2.9
Queue Length 50th (ft)	24	29	5	57	0	14	45	30	50	0
Queue Length 95th (ft)	60	98	21	127	32	36	100	65	103	29
Internal Link Dist (ft)		900		741			306		410	
Turn Bay Length (ft)					300			300		300
Base Capacity (vph)	763	1636	616	1399	1050	651	774	649	844	1026
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.04	0.12	0.16	0.09	0.16	0.18	0.17	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	107	24	24	153	150	52	102	14	109	129	149
Future Volume (veh/h)	99	107	24	24	153	150	52	102	14	109	129	149
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.97		0.90	0.94		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1791	1900	1863	1863	1863	1792	1706	1900	1827	1827	1810
Adj Flow Rate, veh/h	108	116	26	26	166	163	57	111	15	118	140	162
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	7	7	2	2	2	6	11	11	4	4	5
Cap, veh/h	518	437	98	540	479	604	496	365	49	546	506	590
Arrive On Green	0.12	0.31	0.31	0.07	0.26	0.26	0.10	0.25	0.25	0.12	0.28	0.28
Sat Flow, veh/h	1774	1417	318	1774	1863	1583	1707	1451	196	1740	1827	1454
Grp Volume(v), veh/h	108	0	142	26	166	163	57	0	126	118	140	162
Grp Sat Flow(s),veh/h/ln	1774	0	1735	1774	1863	1583	1707	0	1647	1740	1827	1454
Q Serve(g_s), s	2.6	0.0	4.1	0.7	4.8	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Cycle Q Clear(g_c), s	2.6	0.0	4.1	0.7	4.8	4.7	1.5	0.0	4.1	3.0	4.0	5.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	518	0	535	540	479	604	496	0	415	546	506	590
V/C Ratio(X)	0.21	0.00	0.27	0.05	0.35	0.27	0.11	0.00	0.30	0.22	0.28	0.27
Avail Cap(c_a), veh/h	1027	0	1759	738	1466	1443	895	0	798	910	885	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	0.0	17.2	15.2	20.0	14.1	14.4	0.0	20.0	13.9	18.7	13.5
Incr Delay (d2), s/veh	0.2	0.0	0.3	0.0	0.4	0.2	0.1	0.0	0.4	0.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0	0.3	2.5	2.1	0.7	0.0	1.9	1.4	2.0	2.0
LnGrp Delay(d),s/veh	13.2	0.0	17.5	15.2	20.4	14.3	14.5	0.0	20.4	14.1	19.0	13.7
LnGrp LOS	B		B	B	C	B	B		C	B	B	B
Approach Vol, veh/h		250			355			183			420	
Approach Delay, s/veh		15.6			17.2			18.6			15.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.4	10.6	22.4	12.0	21.0	12.3	20.7
Change Period (Y+Rc), s	6.0	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Max Green Setting (Gmax), s	10.0	65.0	20.0	30.0	25.0	50.0	20.0	30.0
Max Q Clear Time (g_c+I1), s	2.7	6.1	3.5	7.0	4.6	6.8	5.0	6.1
Green Ext Time (p_c), s	0.0	1.0	0.1	1.4	0.2	1.6	0.2	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	178	1314	894	274	1700	149	374	594	172	155	922	311
v/c Ratio	0.55	1.10	1.17	0.93	1.19	0.17	0.83	0.62	0.31	0.51	1.15	0.58
Control Delay	79.5	107.8	120.2	104.9	135.7	9.3	87.9	58.2	5.8	71.8	115.3	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.5	107.8	120.2	104.9	135.7	9.3	87.9	58.2	5.8	71.8	115.3	15.2
Queue Length 50th (ft)	99	~873	~830	305	~1200	34	212	307	0	79	~633	161
Queue Length 95th (ft)	139	#1013	#1428	#486	#1384	75	#282	386	49	m80	m#690	m173
Internal Link Dist (ft)		1011			836			810			3090	
Turn Bay Length (ft)	715		675	470			320		320	400		300
Base Capacity (vph)	442	1198	761	296	1430	873	460	953	557	444	805	532
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	1.10	1.17	0.93	1.19	0.17	0.81	0.62	0.31	0.35	1.15	0.58

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.

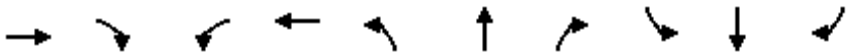
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1248	849	260	1615	142	359	570	165	144	857	289
Future Volume (veh/h)	169	1248	849	260	1615	142	359	570	165	144	857	289
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1827	1845	1863	1863	1845	1863	1863
Adj Flow Rate, veh/h	178	1314	894	274	1700	149	374	594	172	155	922	311
Adj No. of Lanes	2	2	1	1	2	1	2	2	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	4	3	2	2	3	2	2
Cap, veh/h	261	1189	740	304	1502	767	448	1007	444	237	806	355
Arrive On Green	0.08	0.34	0.34	0.17	0.42	0.42	0.13	0.28	0.28	0.07	0.23	0.23
Sat Flow, veh/h	3442	3539	1583	1774	3539	1553	3408	3539	1561	3408	3539	1561
Grp Volume(v), veh/h	178	1314	894	274	1700	149	374	594	172	155	922	311
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1553	1704	1770	1561	1704	1770	1561
Q Serve(g_s), s	8.6	57.1	44.0	25.7	72.2	9.1	18.2	24.5	9.5	7.5	38.7	32.7
Cycle Q Clear(g_c), s	8.6	57.1	44.0	25.7	72.2	9.1	18.2	24.5	9.5	7.5	38.7	32.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	261	1189	740	304	1502	767	448	1007	444	237	806	355
V/C Ratio(X)	0.68	1.11	1.21	0.90	1.13	0.19	0.84	0.59	0.39	0.65	1.14	0.88
Avail Cap(c_a), veh/h	443	1189	740	304	1502	767	461	1007	444	445	806	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.18	0.18	0.18
Uniform Delay (d), s/veh	76.5	56.5	20.1	69.0	48.9	24.1	72.0	52.3	19.4	77.1	65.6	63.3
Incr Delay (d2), s/veh	3.1	60.0	106.3	27.7	68.1	0.6	12.3	1.1	0.8	0.6	68.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	37.8	44.6	15.0	49.5	4.1	9.3	12.2	5.8	3.6	26.5	14.6
LnGrp Delay(d),s/veh	79.6	116.4	126.4	96.7	117.1	24.6	84.4	53.4	20.2	77.6	133.6	68.2
LnGrp LOS	E	F	F	F	F	C	F	D	C	E	F	E
Approach Vol, veh/h		2386			2123			1140			1388	
Approach Delay, s/veh		117.4			108.0			58.5			112.7	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.3	43.0	36.7	61.0	19.6	52.7	18.0	79.7
Change Period (Y+Rc), s	* 9	6.3	9.5	5.9	9.8	* 6.3	7.1	9.5
Max Green Setting (Gmax), s	* 21	36.7	26.5	55.1	20.2	* 37	19.9	60.5
Max Q Clear Time (g_c+I1), s	20.2	40.7	27.7	59.1	9.5	26.5	10.6	74.2
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.3	4.2	0.3	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	104.1
HCM 2010 LOS	F

Notes



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	215	187	128	89	197	1309	447	325	502	85
v/c Ratio	0.77	0.40	0.57	0.18	0.49	0.86	0.61	0.86	0.27	0.18
Control Delay	86.9	8.2	61.6	33.5	19.6	53.2	23.9	76.2	21.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.9	8.2	61.6	33.5	19.6	53.2	23.9	76.2	21.0	2.8
Queue Length 50th (ft)	252	0	121	54	86	745	225	326	158	0
Queue Length 95th (ft)	#378	63	186	106	127	861	358	#495	200	20
Internal Link Dist (ft)	615			900		3090			653	
Turn Bay Length (ft)					400		250	420		120
Base Capacity (vph)	288	468	224	492	405	1568	748	396	1899	476
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.40	0.57	0.18	0.49	0.83	0.60	0.82	0.26	0.18

Intersection Summary

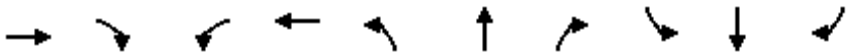
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	71	172	118	39	43	181	1204	411	299	462	78
Future Volume (veh/h)	127	71	172	118	39	43	181	1204	411	299	462	78
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.78		0.74	0.95		0.82	0.94		0.91	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1822	1743	1827	1771	1900	1827	1827	1863	1827	1712	1810
Adj Flow Rate, veh/h	138	77	187	128	42	47	197	1309	447	325	502	85
Adj No. of Lanes	0	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	9	4	2	2	4	4	2	4	11	5
Cap, veh/h	204	95	357	195	211	236	515	1554	647	362	1749	727
Arrive On Green	0.22	0.22	0.22	0.06	0.31	0.31	0.08	0.45	0.45	0.17	0.54	0.54
Sat Flow, veh/h	762	425	1096	1740	681	762	1740	3471	1445	1740	3252	1352
Grp Volume(v), veh/h	215	0	187	128	0	89	197	1309	447	325	502	85
Grp Sat Flow(s),veh/h/ln	1188	0	1096	1740	0	1443	1740	1736	1445	1740	1626	1352
Q Serve(g_s), s	29.4	0.0	24.6	9.6	0.0	7.8	10.4	57.1	42.3	24.0	14.4	5.3
Cycle Q Clear(g_c), s	29.4	0.0	24.6	9.6	0.0	7.8	10.4	57.1	42.3	24.0	14.4	5.3
Prop In Lane	0.64		1.00	1.00		0.53	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	0	357	195	0	447	515	1554	647	362	1749	727
V/C Ratio(X)	0.72	0.00	0.52	0.66	0.00	0.20	0.38	0.84	0.69	0.90	0.29	0.12
Avail Cap(c_a), veh/h	312	0	370	195	0	463	515	1668	694	450	2019	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	0.0	50.6	49.5	0.0	43.3	21.8	41.8	37.7	51.5	21.6	19.5
Incr Delay (d2), s/veh	7.5	0.0	1.2	7.1	0.0	0.2	0.3	4.1	3.1	16.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	0.0	7.6	4.9	0.0	3.1	5.0	28.2	17.4	16.7	6.5	2.0
LnGrp Delay(d),s/veh	70.6	0.0	51.9	56.7	0.0	43.5	22.1	46.0	40.8	68.4	21.7	19.6
LnGrp LOS	E		D	E		D	C	D	D	E	C	B
Approach Vol, veh/h		402			217			1953			912	
Approach Delay, s/veh		61.9			51.3			42.4			38.2	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	95.8		58.1	32.4	80.4	15.0	43.1
Change Period (Y+Rc), s	5.9	5.9		* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	11.1	104.1		* 53	35.1	80.1	* 7.9	* 38
Max Q Clear Time (g_c+I1), s	12.4	16.4		9.8	26.0	59.1	11.6	31.4
Green Ext Time (p_c), s	0.0	6.4		0.6	0.5	15.4	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes



Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	164	232	410	185	253	717	223	186	1235	170
v/c Ratio	0.59	0.48	0.94	0.27	0.95	0.48	0.31	0.52	0.93	0.44
Control Delay	68.7	32.8	71.6	26.6	126.5	13.8	1.1	26.2	62.0	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.9	0.0
Total Delay	68.7	32.8	71.6	26.6	126.5	13.8	1.1	26.2	82.9	11.0
Queue Length 50th (ft)	165	133	352	103	246	102	0	104	691	15
Queue Length 95th (ft)	253	210	#470	167	#426	126	2	153	#813	85
Internal Link Dist (ft)	623			900		3090			653	
Turn Bay Length (ft)					400		250	420		120
Base Capacity (vph)	280	479	436	674	266	1485	729	366	1334	388
Starvation Cap Reductn	0	0	0	0	0	0	0	0	144	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.48	0.94	0.27	0.95	0.48	0.31	0.51	1.04	0.44

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	61	213	377	76	94	238	674	210	171	1149	158
Future Volume (veh/h)	90	61	213	377	76	94	238	674	210	171	1149	158
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.75		0.68	0.89		0.82	1.00		0.89	0.99		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1831	1827	1863	1833	1900	1810	1810	1863	1827	1810	1863
Adj Flow Rate, veh/h	98	66	232	410	83	102	253	717	223	186	1235	170
Adj No. of Lanes	0	1	1	1	1	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.93	0.93
Percent Heavy Veh, %	2	2	4	2	2	2	5	5	2	4	5	2
Cap, veh/h	180	105	439	400	268	329	284	1486	610	357	1335	496
Arrive On Green	0.22	0.22	0.22	0.15	0.41	0.41	0.13	0.43	0.43	0.09	0.39	0.39
Sat Flow, veh/h	658	469	1059	1774	661	812	1723	3438	1411	1740	3438	1277
Grp Volume(v), veh/h	164	0	232	410	0	185	253	717	223	186	1235	170
Grp Sat Flow(s),veh/h/ln	1127	0	1059	1774	0	1473	1723	1719	1411	1740	1719	1277
Q Serve(g_s), s	21.8	0.0	30.8	25.9	0.0	14.5	18.6	25.4	18.1	10.7	58.3	16.0
Cycle Q Clear(g_c), s	22.3	0.0	30.8	25.9	0.0	14.5	18.6	25.4	18.1	10.7	58.3	16.0
Prop In Lane	0.60		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	0	439	400	0	597	284	1486	610	357	1335	496
V/C Ratio(X)	0.58	0.00	0.53	1.02	0.00	0.31	0.89	0.48	0.37	0.52	0.93	0.34
Avail Cap(c_a), veh/h	285	0	439	400	0	597	284	1486	610	368	1335	496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	0.83	0.83	0.83	0.78	0.78	0.78
Uniform Delay (d), s/veh	59.8	0.0	45.5	47.6	0.0	34.4	51.2	34.6	32.5	27.6	49.6	36.7
Incr Delay (d2), s/veh	2.8	0.0	1.2	50.5	0.0	0.3	23.5	0.9	1.4	0.7	10.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	9.2	11.7	0.0	6.0	13.5	12.2	7.3	5.1	29.5	5.8
LnGrp Delay(d),s/veh	62.7	0.0	46.7	98.2	0.0	34.7	74.8	35.6	34.0	28.4	59.7	38.2
LnGrp LOS	E		D	F		C	E	D	C	C	E	D
Approach Vol, veh/h		396			595			1193			1591	
Approach Delay, s/veh		53.3			78.4			43.6			53.8	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	69.9		74.0	18.6	77.4	31.0	43.0
Change Period (Y+Rc), s	5.9	5.9		* 7.1	5.9	5.9	* 7.1	* 7.1
Max Green Setting (Gmax), s	20.2	64.0		* 67	13.8	70.4	* 24	* 36
Max Q Clear Time (g_c+I1), s	20.6	60.3		16.5	12.7	27.4	27.9	32.8
Green Ext Time (p_c), s	0.0	3.1		1.5	0.0	10.6	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.4
HCM 2010 LOS	D

Notes