

# **TRAFFIC IMPACT STUDY**

*For*

**ABTB Mid-Atlantic, LLC  
Proposed Taco Bell Fast Food Restaurant**

*Property Located at:*

**10120 Fairfax Boulevard  
Boulevard Marketplace; Parcel D  
City of Fairfax, Fairfax County, VA**

*Prepared by:*



<b>1515 Market Street Suite 1920 Philadelphia, PA 19102</b>	<b>125 West Street Suite 201 Annapolis, MD 21401 (443) 202-5400</b>
---	---

*Kevin Savage*  
**Kevin Savage, PE, PTOE  
VA PE License #0402066744**

**June 29, 2023  
Revised July 19, 2024**

**3486 22-02730**

## INTRODUCTION

It is proposed to construct a Taco Bell Fast Food Restaurant w/ Drive-Thru on a parcel of land currently developed with a parking area, located along the westbound side of Fairfax Boulevard (US Route 50) in City of Fairfax, Fairfax County, Virginia (see Figure 1 in Appendix A). The site is designated as Boulevard Marketplace; Parcel D on the City of Fairfax Tax Maps. The site is currently developed with a parking area and had been previously approved for the construction of a 5,055 SF Retail Building and separately, a 3,500 SF Bank with Drive-Thru; however, the previously approved uses have not been constructed. It is proposed to construct a 2,090 SF Taco Bell Fast Food Restaurant with Drive-Thru (“The Project”). The site is located within the CR – Commercial Retail Zone. Access to the site is currently provided via one full movement, signalized driveway and two right in/right out driveways along Fairfax Boulevard (US Route 50) and one full movement driveway along Fair Woods Parkway. It is proposed to maintain the existing access points.

Dynamic Traffic LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday AM and weekday PM peak periods at the intersections of:
  - Fairfax Boulevard & Boulevard Marketplace/Gatewood Plaza Driveway
  - Fairfax Boulevard WB & Western Right Turn In/Right Turn Out Driveway
  - Fairfax Boulevard WB & Eastern Right Turn In/Right Turn Out Driveway
  - Fair Woods Parkway & Northern Site Driveway/CVS Driveway
  - Fairfax Boulevard & Fair Woods Parkway
- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.
- Capacity analyses were conducted for the Existing, No Build, and Build conditions for the study intersections.
- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.
- The parking layout and supply was assessed based on accepted design standards, local requirements, and demand experienced at similar developments.

## **EXISTING CONDITIONS**

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

### **Existing Roadway Conditions**

The following are descriptions of the roadways in the study area:

Fairfax Boulevard (US Route 50) is an Urban Principal Arterial roadway under the jurisdiction of the City of Fairfax with a general east/west orientation. In the vicinity of the site the posted speed limit is 35 MPH and the roadway provides three travel lanes in each direction. Curb and sidewalk are provided along both sides of the roadway. Fairfax Boulevard provides a relatively flat vertical alignment and straight horizontal alignment along the site frontage with a slight bend to the west of its intersection with Boulevard Marketplace. The land uses along Fairfax Boulevard in the vicinity of The Project are primarily commercial.

Fair Woods Parkway is a local roadway under the jurisdiction of the City of Fairfax with a general north/south orientation. In the vicinity of the site the posted speed limit is 25 MPH and the roadway provides one travel lane in each direction. On-street parking is permitted along both sides of the roadway just north of its intersection with the site driveway. Curb and sidewalk are provided along both sides of the roadway. Fair Woods Parkway provides a relatively flat vertical alignment and straight horizontal alignment along the site frontage with a slight 30° bend to the north of its intersection with the northern site driveway/CVS driveway. The land uses along Fair Woods Parkway in the vicinity of The Project are mixed commercial and residential.

### **Existing Bicycle and Pedestrian Facilities**

Pedestrian and bicycle facilities are provided in the form of a sidewalk along both the eastbound and westbound sides of Fairfax Boulevard (US Route 50). Pedestrian push buttons, curb ramps and associated crosswalks are provided at both adjacent signalized intersections. Further, the George Snyder Trail currently runs along the north and west sides of the site. An extension to the George Snyder Trail is proposed to extend further west to Chain Bridge Road (Route 123).

A recently installed bikeshare station is located on the northwest corner of the intersection of Fairfax Boulevard (US Route 50) & Fair Woods Parkway.

### **Existing Mass Transit Facilities**

The Washington Metropolitan Area Transit Authority (WMATA) and the City of Fairfax provide bus service in the nearby area. Bus service is provided via the WMATA 1C line, which runs from the Fair Oaks Mall to Dunn Loring Station and via the City of Fairfax CUE lines, which provide service to the Vienna/Fairfax GMU lines. The nearest bus stop is located along the Fairfax Boulevard site frontage. All CUE routes serve the project location, with “1” routes heading eastbound and “2” routes heading westbound.

## Scope of Study

A Pre-Scope of Work Meeting Form was submitted to the City for The Project on April 7, 2023. A Scoping Meeting was held with City staff on May 16, 2023 and the Pre-Scope of Work Meeting Form was resubmitted on May 16, 2023. A copy of the finalized Scoping Application is included in Appendix D. Consistent with the scoping application, the following intersections were included as part of the TIS:

- Fairfax Boulevard & Boulevard Marketplace/Gatewood Plaza Driveway
- Fairfax Boulevard WB & Western Right Turn In/Right Turn Out Driveway
- Fairfax Boulevard WB & Eastern Right Turn In/Right Turn Out Driveway
- Fair Woods Parkway & Northern Site Driveway/CVS Driveway
- Fairfax Boulevard & Fair Woods Parkway

## Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on Thursday, April 27, 2023 from 6:00 to 9:00 AM and from 4:00 to 7:00 PM at the following intersections:

- Fairfax Boulevard & Boulevard Marketplace/Gatewood Plaza Driveway
- Fairfax Boulevard WB & Western Right Turn In/Right Turn Out Driveway
- Fairfax Boulevard WB & Eastern Right Turn In/Right Turn Out Driveway
- Fair Woods Parkway & Northern Site Driveway/CVS Driveway
- Fairfax Boulevard & Fair Woods Parkway

Review of the collected traffic data reveals that the weekday morning peak street hour (PSH) occurs between 7:30 - 8:30 AM and the weekday evening PSH occurs between 4:45 - 5:45 PM. A growth rate of 1% for roadways within the study area was confirmed with the City of Fairfax staff during the Scoping Meeting. As counts were conducted in 2023, the background growth rate of 1.0% for one (1) year was applied to the study area. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

## Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a “qualitative” evaluation of capacity based upon certain “quantitative” calculations related to empirical values, such as traffic volume and intersection control.

At signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal “green time”, turning percentages, truck volumes, etc. However, delays cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the Level of Service “F” range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle lengths; a particular traffic movement experiences a long red time; or progressive movement for a particular lane group is poor. Table 1 describes the level of service ranges for signalized intersections.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table 2 describes the level of service ranges for unsignalized (stop controlled) intersections.

**Table 1**  
**Level of Service Criteria**  
**for Signalized Intersections**

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	greater than 80.0

**Table 2**  
**Level of Service Criteria**  
**for Unsignalized Intersections**

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles.

All capacity analyses were performed utilizing Synchro 11 software. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis. Table 3 summarizes the existing levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

**Table 3**  
**Existing Levels of Service**

Intersection	Direction/ Movement		AM PSH	PM PSH
Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway	EB	L	F (98)	F (114)
		TR	A (3)	B (13)
	WB	L	F (93)	F (108)
		TR	A (0)	A (1)
	NB	LT	F (92)	F (306)
		R	F (91)	E (68)
	SB	LT	F (92)	F (115)
		R	F (94)	E (68)
	<b>Overall</b>		<b>A (2)</b>	<b>B (11)</b>
	SB	R	c (18)	c (22)
Fairfax Boulevard and Eastern Site Driveway	SB	R	b (14)	c (20)
Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway	EB	L	F (92)	F (106)
		TR	A (1)	A (1)
	WB	L	F (94)	F (139)
		T	A (7)	b (10)
	NB	LTR	E (74)	F (92)
	SB	LT	F (85)	F (102)
	<b>Overall</b>		<b>A (8)</b>	<b>B (12)</b>
Fair Woods Parkway and Northern Site Driveway/CVS Driveway	EB	LTR	a (10)	a (10)
	WB	LTR	b (11)	b (11)
	NB	LTR	a (8)	a (8)
	SB	LTR	a (7)	a (8)

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed.

#### **Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway**

Boulevard Marketplace and the Gatewood Plaza Driveway intersect Fairfax Boulevard to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Fairfax which indicates that a six-phase 190-second background cycle length is utilized during the weekday morning peak hour and a three-phase 220-second background cycle is utilized during the weekday evening peak hour (the traffic signal timing directive is included in Appendix B)

The eastbound and westbound approaches of Fairfax Boulevard both provide one dedicated left turn lane, two dedicated through lanes, and one shared through/right turn lane. The northbound approach of the Gatewood Plaza Driveway provides one shared left turn/through lane and one dedicated right turn lane. The southbound approach of Boulevard Marketplace provides one shared left turn/through lane and one dedicated right turn lane.

A review of the existing analysis reveals that the intersection operates at overall levels of service “B” or better during the analyzed peak periods. Several individual intersection movements operate at level of service “F” during the analyzed peak periods, primarily due to the existing long cycle lengths, including the eastbound left turn movement, westbound left turn movement, northbound left turn/through movement and the southbound left turn/through movement during both analyzed peak periods and the northbound right turn movement and southbound right turn movement during the weekday morning peak period. See Table 3 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Western Site Driveway**

The Western Site Driveway intersects Fairfax Boulevard just south of the 7-Eleven to form a T-intersection with the southbound approach of the site driveway operating under stop control. The westbound approach of Fairfax Boulevard provides two dedicated through lanes and one shared through/right turn lane. The southbound approach of the site driveway proves one dedicated right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service “C” during the analyzed peak periods. See Table 3 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Eastern Site Driveway**

The Eastern Site Driveway intersects Fairfax Boulevard just south of the Patient First to form a T-intersection with the southbound approach of the site driveway operating under stop control. The westbound approach of Fairfax Boulevard provides two dedicated through lanes and one shared through/right turn lane. The southbound approach of the site driveway proves one dedicated right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service “C” or better during the analyzed peak periods. See Table 3 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway**

Fair Woods Parkway and the Fire Station #33 Driveway intersect Fairfax Boulevard to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from the City of Fairfax which indicates that a six-phase 190-second background cycle length is utilized during the weekday morning peak hour and a three-phase 220-second background cycle is utilized during the weekday evening peak hour (the traffic signal timing directive is included in Appendix B).

The eastbound approach of Fairfax Boulevard provides one dedicated left turn lane, two dedicated through lanes, and one shared through/right turn lane. The westbound approach of Fairfax Boulevard provides one dedicated left turn lane, three dedicated through lanes and one dedicated right turn lane. The northbound approach of the Fire Station driveway provides one shared left turn/through/right turn lane. The southbound approach of Boulevard Marketplace provides one shared left turn/through lane and one dedicated, channelized right turn lane.

A review of the existing analysis reveals that the intersection operates at overall levels of service “B” or better during the analyzed peak periods. Several individual intersection movements operate at level of service “F” during the analyzed peak periods, primarily due to the existing long cycle lengths,

including the eastbound left turn movement, westbound left turn movement and southbound left turn/through movement during both analyzed peak periods and the northbound approach during the weekday evening peak period. See Table 3 for the individual movement levels of service and delays.

#### **Fair Woods Parkway and Northern Site Driveway/CVS Driveway**

The Northern Site Driveway and CVS Driveways intersect Fair Woods Parkway to form a four-leg intersection with the eastbound and westbound approaches operating under stop control. The eastbound approach of the northern site driveway and the westbound approach of the CVS Driveway both provide one shared left turn/through/right turn lane. The northbound approach of Fair Woods Parkway provides a shared left turn/through lane and a dedicated right turn lane, while the southbound approach provides a shared left turn/through/right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service “B” or better during the analyzed peak periods. See Table 3 for the individual movement levels of service and delays.

## FUTURE CONDITIONS

Traffic volumes and operational analyses were developed for both the 2026 No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate of 1.0% for roadways within the study area was confirmed with the City of Fairfax staff during the Scoping Meeting.

Through consultation with the City of Fairfax staff, there are two other developments in the vicinity of the site that are identified as significant traffic generators. It was assumed that the background growth rate was adequate to account for the traffic associated with all developments not listed hereafter.

- A development consisting of 268 apartments and 50 townhomes, known as N29 Willowwood, located along the north side of Eaton Place between Chain Bridge Road (Route 123) and Fairfax Boulevard. Projections of the associated traffic volumes were taken from the *Traffic Impact Study*, prepared by Wells & Associates, dated April 28, 2023. The Adjacent Development Traffic Volumes passing the site are shown on Figure 3.
- A two-phase development, known as Northfax West, consisting of 56 multi-family residential units and 200 continuing care retirement community units in Phase 1 and 25,000 SF of commercial uses, 180 residential dwelling units and a 140-room hotel in Phase 2, located in the northwest quadrant of the intersection of Fairfax Boulevard and Chain Bridge Road (Route 123). Projections of the associated traffic volumes were taken from the *Traffic Impact Study*, prepared by Gorove Slade Transportation Planners and Engineers, dated January 2, 2020, last revised April 30, 2020. The Adjacent Development Traffic Volumes passing the site are shown on Figures 4 and 5.

Future 2026 No Build traffic volumes were developed by applying the background growth rate of 1.0% for two (2) years to the study area roadways existing traffic volumes and adding the adjacent development traffic volumes. Figure 6, in Appendix A, shows the 2026 No Build traffic volumes.

### Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code 934 – Fast-Food Restaurant with Drive-Through Window in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11<sup>th</sup> Edition*. This publication sets forth trip generation rates based on empirical traffic count data conducted at numerous research sites. Table 4 summarizes the projected trip generation during the peak street hours. Note that no credit for passby trips for the proposed Fast-Food Restaurant was taken within the study.

**Table 4**  
**Trip Generation**

Land Use	AM PSH			PM PSH			Weekday Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
2,090 SF Taco Bell Restaurant	47	46	93	36	33	69	489	488	977

As noted previously, the site had been previously approved for the construction of a 5,055 SF Retail Building and separately, a 3,500 SF Bank with Drive-Thru; however, the previously approved uses have not been constructed. Table 5 below provides a comparison between the trips associated with the previously approved uses and the proposed development.

**Table 5**  
**Trip Generation Comparison**

Use	AM PSH			PM PSH			Weekday Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
5,055 SF Retail (Previously Approved)	7	5	12	24	24	48	222	221	443
3,500 SF Bank w/ Drive-Thru (Previously Approved)	20	15	35	37	37	74	176	175	351
2,090 SF Taco Bell w/ Drive – Thru (Proposed)	47	46	93	36	33	69	489	488	977

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Figures 7 and 8, located in Appendix A, illustrate the Traffic Trip Distribution and Site Generated Volumes, respectively. The Site Generated Volumes assigned to the study area network were added to the No Build traffic volumes to generate the Build traffic volumes, which are shown in Figure 9.

### Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build and Build conditions and are summarized in Table 6 below.

**Table 6**  
**Future Levels of Service**

Intersection	Direction/ Movement	AM PSH		PM PSH	
		No Build	Build	No Build	Build
Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway	EB	L	F (98)	F (100)	F (114)
		TR	A (3)	A (6)	B (13)
	WB	L	F (93)	F (93)	F (108)
		TR	A (0)	A (0)	A (1)
	NB	LT	F (92)	F (95)	F (317)
		R	F (91)	F (81)	E (68)
	SB	LT	F (92)	F (98)	F (115)
		R	F (94)	F (82)	E (68)
	<b>Overall</b>		<b>A (3)</b>	<b>A (5)</b>	<b>B (11)</b>
	<b>B (12)</b>				
Fairfax Boulevard and Western Site Driveway	SB	R	c (18)	c (19)	c (24)
Fairfax Boulevard and Eastern Site Driveway	SB	R	b (14)	b (15)	b (21)
Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway	EB	L	F (92)	F (92)	F (106)
		TR	A (1)	A (1)	A (1)
	WB	L	F (94)	F (94)	F (139)
		T	A (7)	A (8)	B (11)
	NB	LTR	E (74)	E (73)	F (91)
	SB	LT	F (85)	F (84)	F (102)
<b>Overall</b>		<b>A (8)</b>	<b>A (8)</b>	<b>B (12)</b>	<b>B (13)</b>
Fair Woods Parkway and Northern Site Driveway/CVS Driveway	EB	LTR	a (10)	b (10)	a (10)
	WB	LTR	b (11)	b (11)	b (11)
	NB	LTR	a (8)	a (8)	a (8)
	SB	LTR	a (7)	a (7)	a (8)

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

### **Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway**

With the addition of site generated traffic, the intersection is anticipated to operate at overall intersection levels of service “B” or better with minor changes in the delay during the analyzed peak hours. See Table 6 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Western Site Driveway**

With the addition of site generated traffic, the driveway is anticipated to operate at No Build levels of service “C”. See Table 6 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Eastern Site Driveway**

With the addition of site generated traffic, the driveway is anticipated to operate at levels of service “C” or better. See Table 6 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway**

With the addition of site generated traffic, the intersection is anticipated to operate at overall intersection levels of service “B” or better with minor changes in the delay during the analyzed peak hours. See Table 6 for the individual movement levels of service and delays.

### **Fairfax Boulevard and Northern Site Driveway**

With the addition of site generated traffic, each movement is anticipated to operate at No Build levels of service “B” or better. See Table 6 for the individual movement levels of service and delays.

### **Queue Analysis**

Queue length conditions at the study intersections were analyzed under the No Build and Build conditions. The 95<sup>th</sup> percentile queues for each study peak hour are summarized in Table 7 below.

**Table 7  
2026 Queue Analysis**

Intersection	Direction/ Movement	Storage Length	AM PSH		PM PSH	
			No Build	Build	No Build	Build
Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway	EB	L	245'	23'	85'	65'
		TR	-	183'	323'	410'
	WB	L	150'	18'	18'	10'
		TR	-	3'	3'	20'
	NB	LT	-	3'	3'	173'
		R	-	5'	5'	48'
	SB	LT	-	3'	28'	28'
		R	60'	18'	25'	18'
	SB	R	-	8'	10'	8'
	SB	R	-	0'	3'	5'
Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway	EB	L	400'	115'	115'	298'
		TR	-	10'	10'	13'
	WB	L	55'	3'	3'	5'
		T	-	215'	228'	458'
	NB	LTR	-	5'	5'	3'
	SB	LT	-	288'	303'	243'
Fair Woods Parkway and Northern Site Driveway/CVS Driveway	EB	LTR	-	0'	3'	3'
	WB	LTR	-	0'	0'	5'

### **Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway**

With the addition of site generated traffic, there is anticipated to be a maximum increase of 9 vehicles in the 95<sup>th</sup> percentile queues at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Table 7 for the individual movement 95<sup>th</sup> percentile queues.

### **Fairfax Boulevard and Western Site Driveway**

With the addition of site generated traffic, there is anticipated to be a minimal increase in the 95<sup>th</sup> percentile queues at the intersection. See Table 7 for the individual movement 95<sup>th</sup> percentile queues.

### **Fairfax Boulevard and Eastern Site Driveway**

With the addition of site generated traffic, there is anticipated to be a minimal increase in the 95<sup>th</sup> percentile queues at the intersection. See Table 7 for the individual movement 95<sup>th</sup> percentile queues.

### **Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway**

With the addition of site generated traffic, there is anticipated to be a maximum increase of 1 vehicle in the 95<sup>th</sup> percentile queues at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Table 7 for the individual movement 95<sup>th</sup> percentile queues.

### **Fairfax Boulevard and Northern Site Driveway**

With the addition of site generated traffic, there is anticipated to be a minimal increase in the 95<sup>th</sup> percentile queues at the intersection. See Table 7 for the individual movement 95<sup>th</sup> percentile queues.

## SITE PLAN

### **Site Access and Circulation**

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will continue to be provided via one full movement, signalized driveway and two right in/right out driveways along Fairfax Boulevard (US Route 50) and one full movement driveway along Fair Woods Parkway.

The parking lot will be serviced by parking aisles with a width of 23', which satisfy the City's requirement of 23'. These aisles will allow for two-way circulation and 90-degree parking. Review of the site plan design indicates that the site can sufficiently accommodate a large wheel base vehicle, such as a fire truck and trash truck along with the automobile traffic anticipated.

The drive-thru system will operate with a counter clockwise flow with the ability to stack approximately thirteen (13) cars in the drive-thru lane without impacting parking or site circulation. A drive-thru queueing analysis was performed for the proposed restaurant utilizing data obtained from a comparable Taco Bell location. A 95th percentile queue of 4 vehicles was identified based on the queueing calculations. Therefore, the proposed drive-thru stacking of 13 spaces will be sufficient to accommodate the anticipated demand. The queue calculations are included in the Appendix.

### **Parking**

The City of Fairfax Site Development Standards set forth a parking requirement of 1 parking space per 200 square feet for restaurants. This equates to a parking requirement of 11 spaces for the proposed 2,090 SF Taco Bell Restaurant. ITE identifies a peak parking demand of 7.51 spaces per 1,000 SF for a Fast Food Restaurant with Drive-Through Window (LUC 934). This equates to a total demand for the site of 16 spaces. The site as proposed provides 20 parking spaces, inclusive of two handicap spaces, and the Ordinance requirement is satisfied.

It is proposed to provide parking stalls with dimensions of 9'x18', which satisfy the minimum requirement of 9'x18'.

## FINDINGS & CONCLUSIONS

### Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

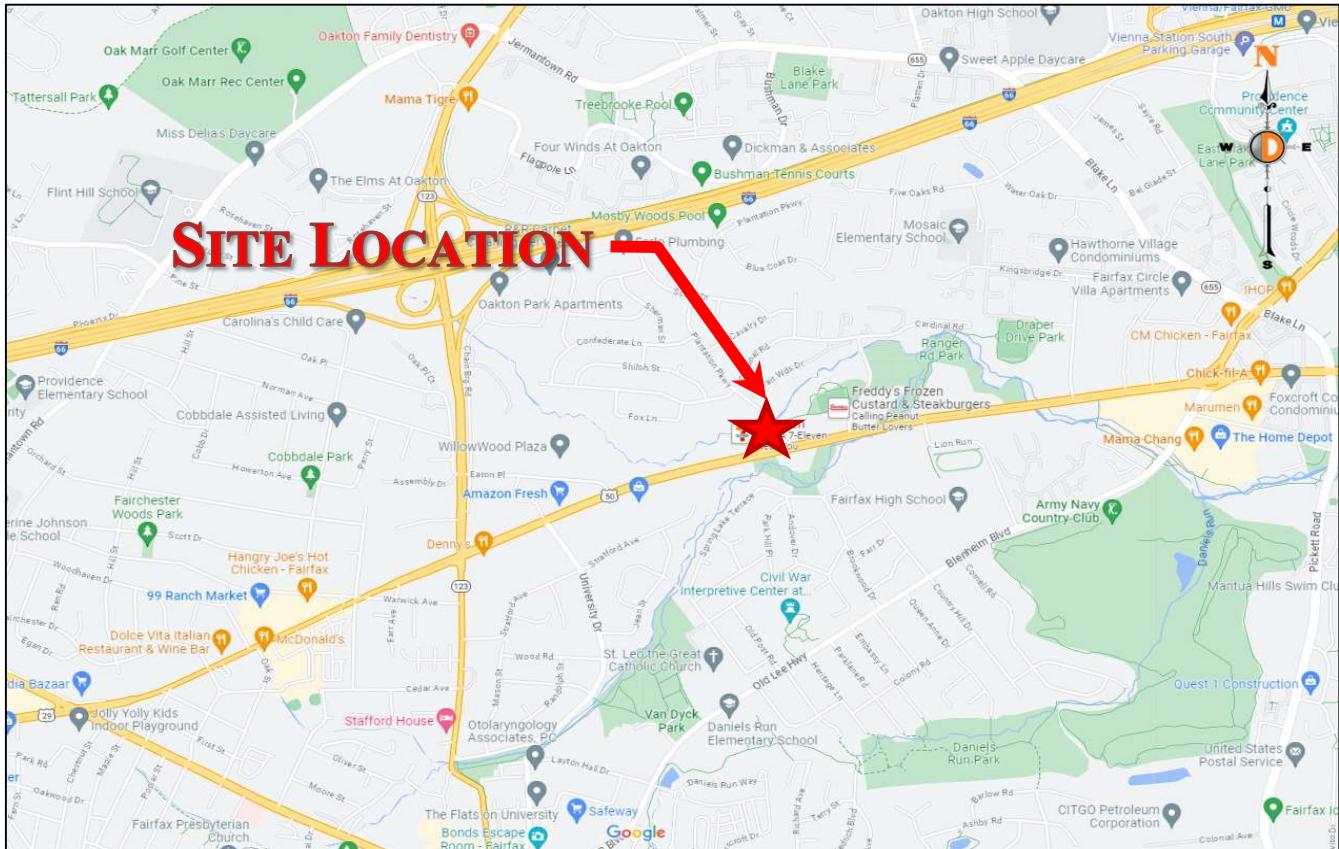
- The proposed 2,090 SF Taco Bell Restaurant is projected to generate 47 entering trips and 46 exiting trips during the weekday morning peak hour and 36 entering trips and 33 exiting trips during the evening peak hour.
- Access to the site will continue to be provided via one full movement, signalized driveway and two right in/right out driveways along Fairfax Boulevard (US Route 50) and one full movement driveway along Fair Woods Parkway.
- With the addition of site generated traffic, the intersection of Fairfax Boulevard and Boulevard Marketplace/Gatewood Plaza Driveway is anticipated to operate at overall levels of service “B” or better during the peak hours studied with minor changes in delay.
- With the addition of site generated traffic, the intersection of Fairfax Boulevard and the Western Site Driveway is anticipated to operate at levels of service “C” during the peak hours studied.
- With the addition of site generated traffic, the intersection of Fairfax Boulevard and the Eastern Site Driveway is anticipated to operate at levels of service “C” or better during the peak hours studied.
- With the addition of site generated traffic, the intersection of Fairfax Boulevard and Fair Woods Parkway/Fire Station #33 Driveway is anticipated to operate at overall levels of service “B” or better during the peak hours studied with minor changes in delay.
- With the addition of site generated traffic, the intersection of Fair Woods Parkway and Northern Site Driveway/CVS Driveway is anticipated to operate at levels of service “B” or better during the peak hours studied.
- As proposed, The Project’s site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.
- The proposed parking supply and design is sufficient to support the projected demand and satisfies the City requirements.

### Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic LLC that the adjacent street system of the City of Fairfax will not experience any significant degradation in operating conditions with the construction of The Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project’s needs.

## **Appendix A**

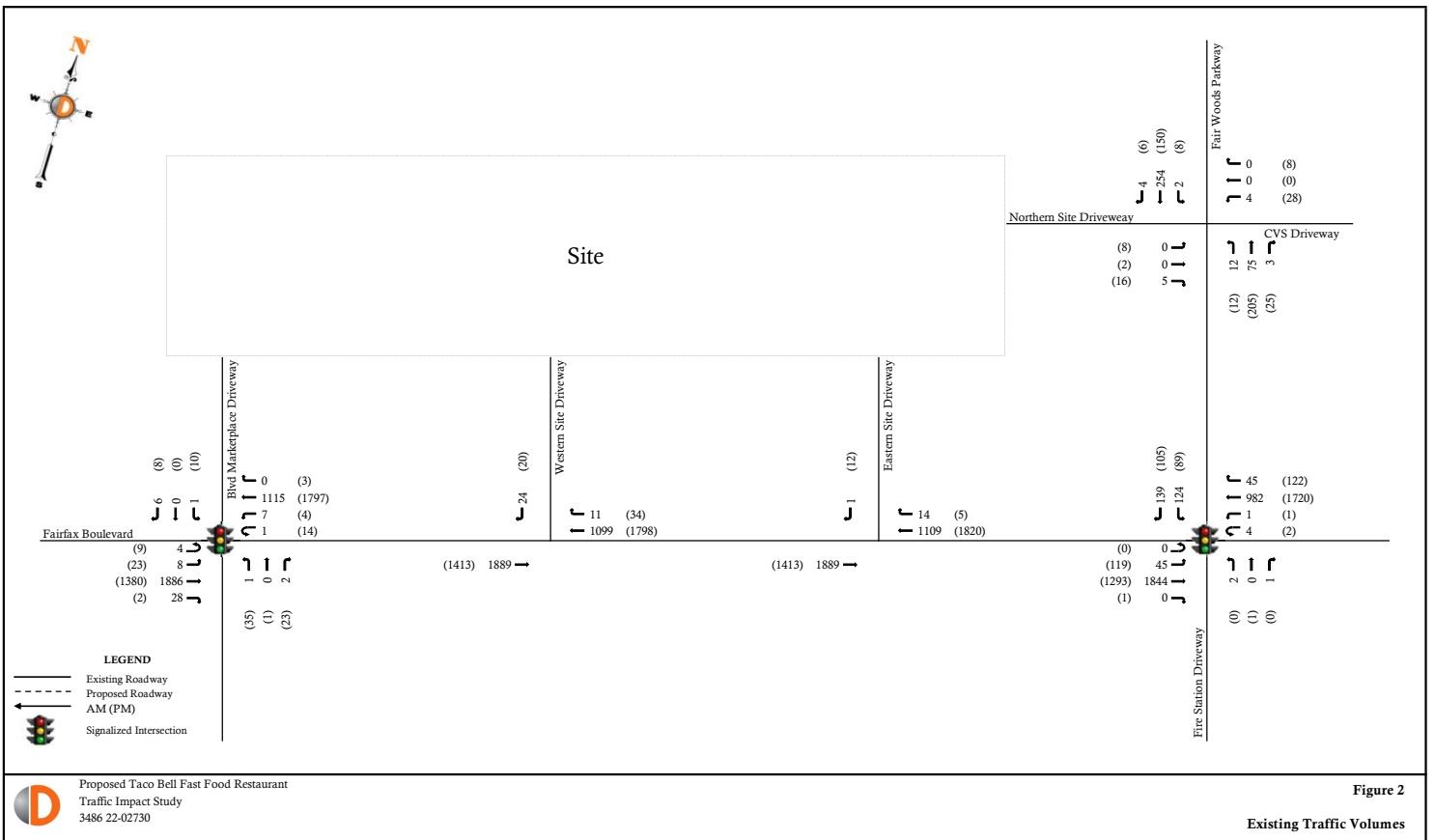
### **Traffic Volume Figures**

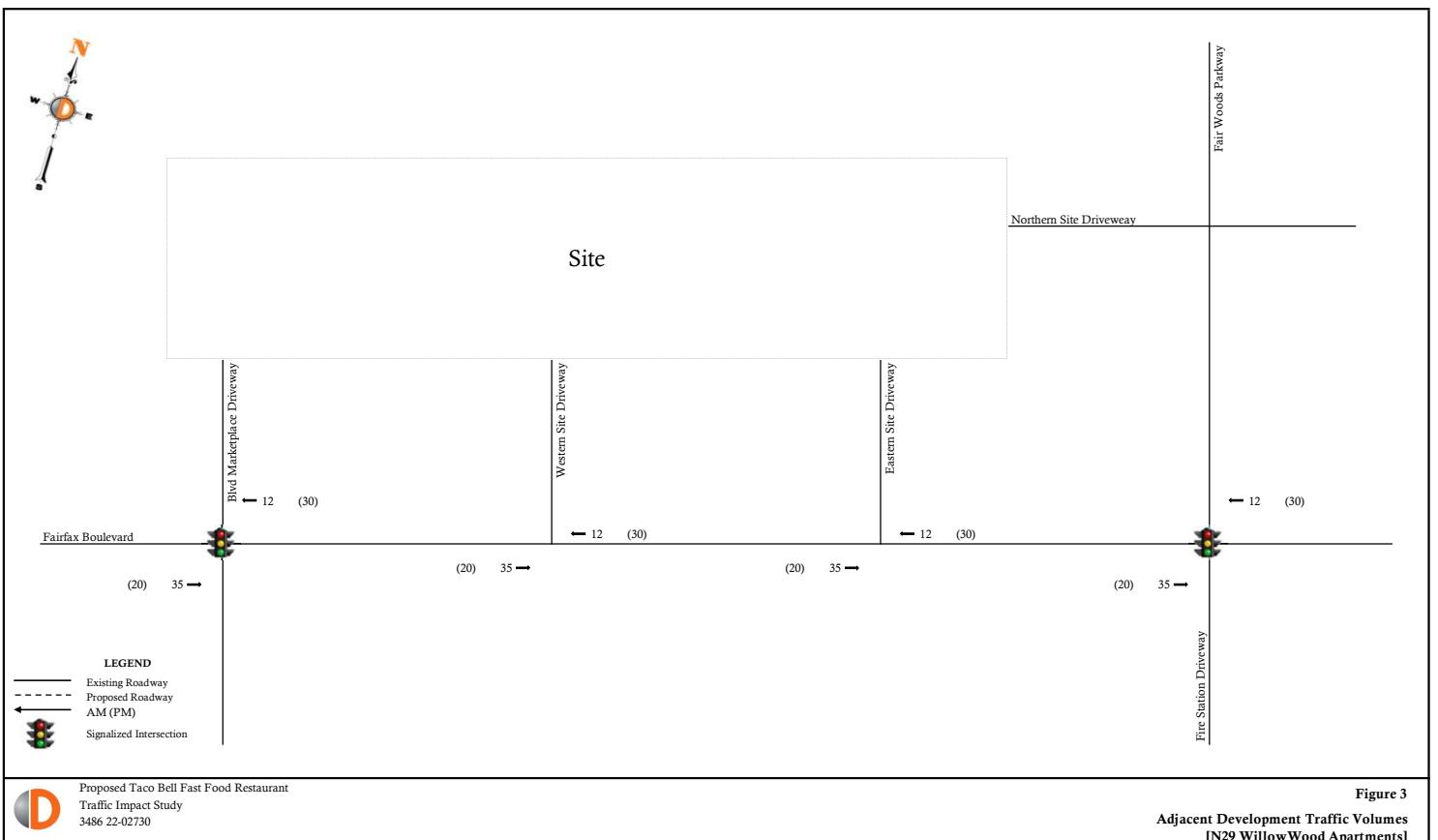


Proposed Taco Bell Fast Food Restaurant  
Traffic Impact Study  
3486 22-02730

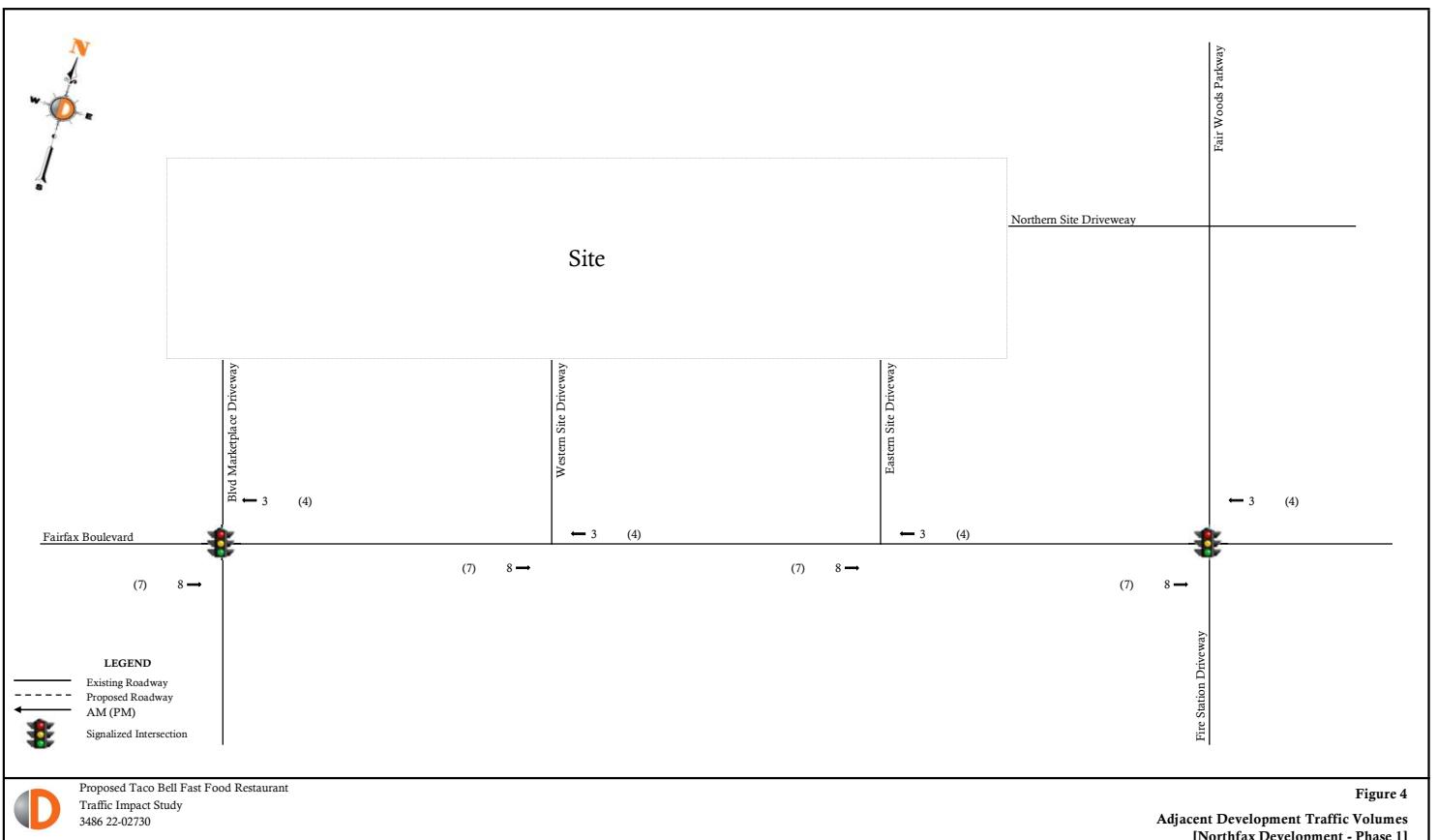
**Figure 1**

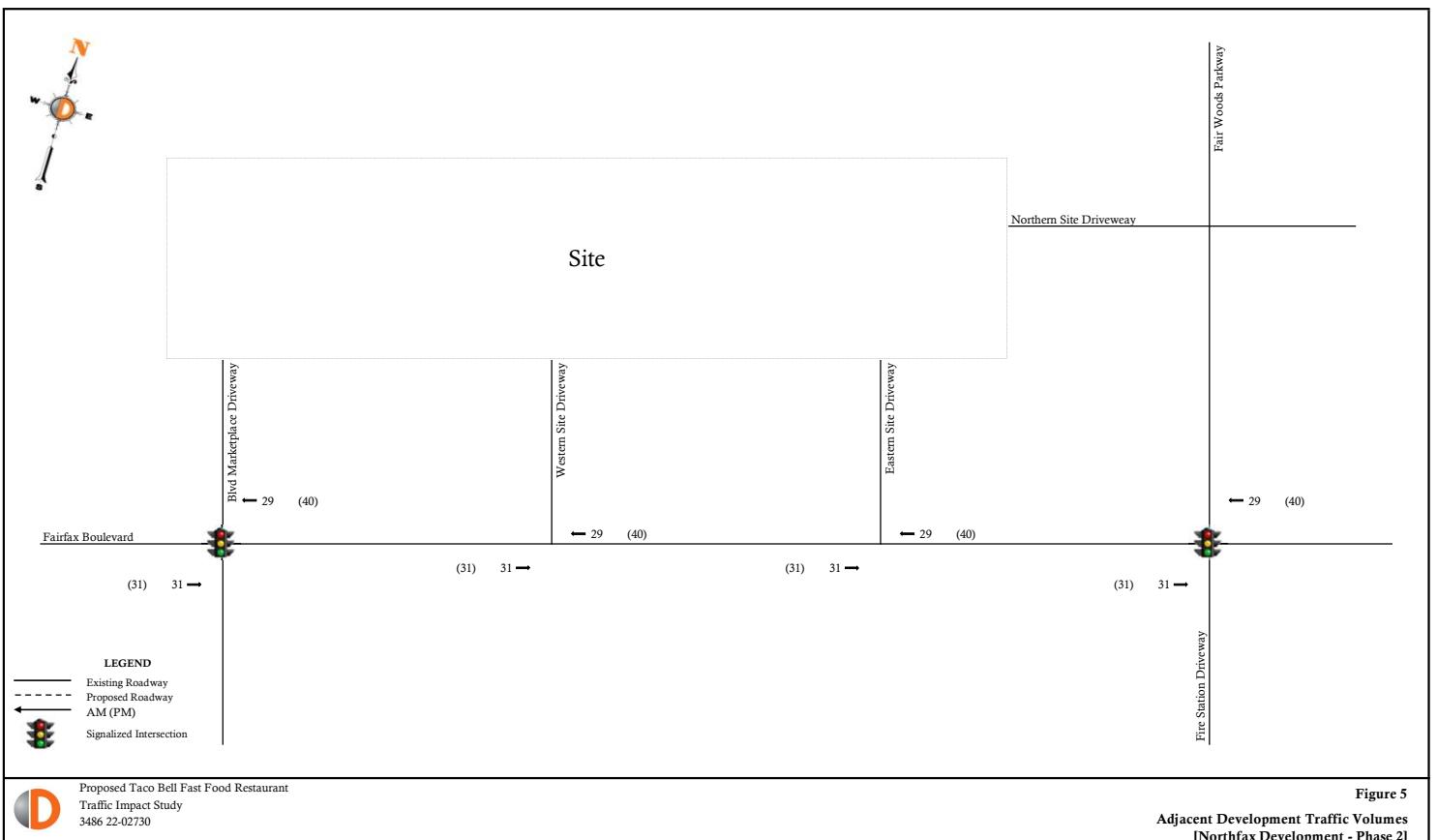
**Site Location Map**



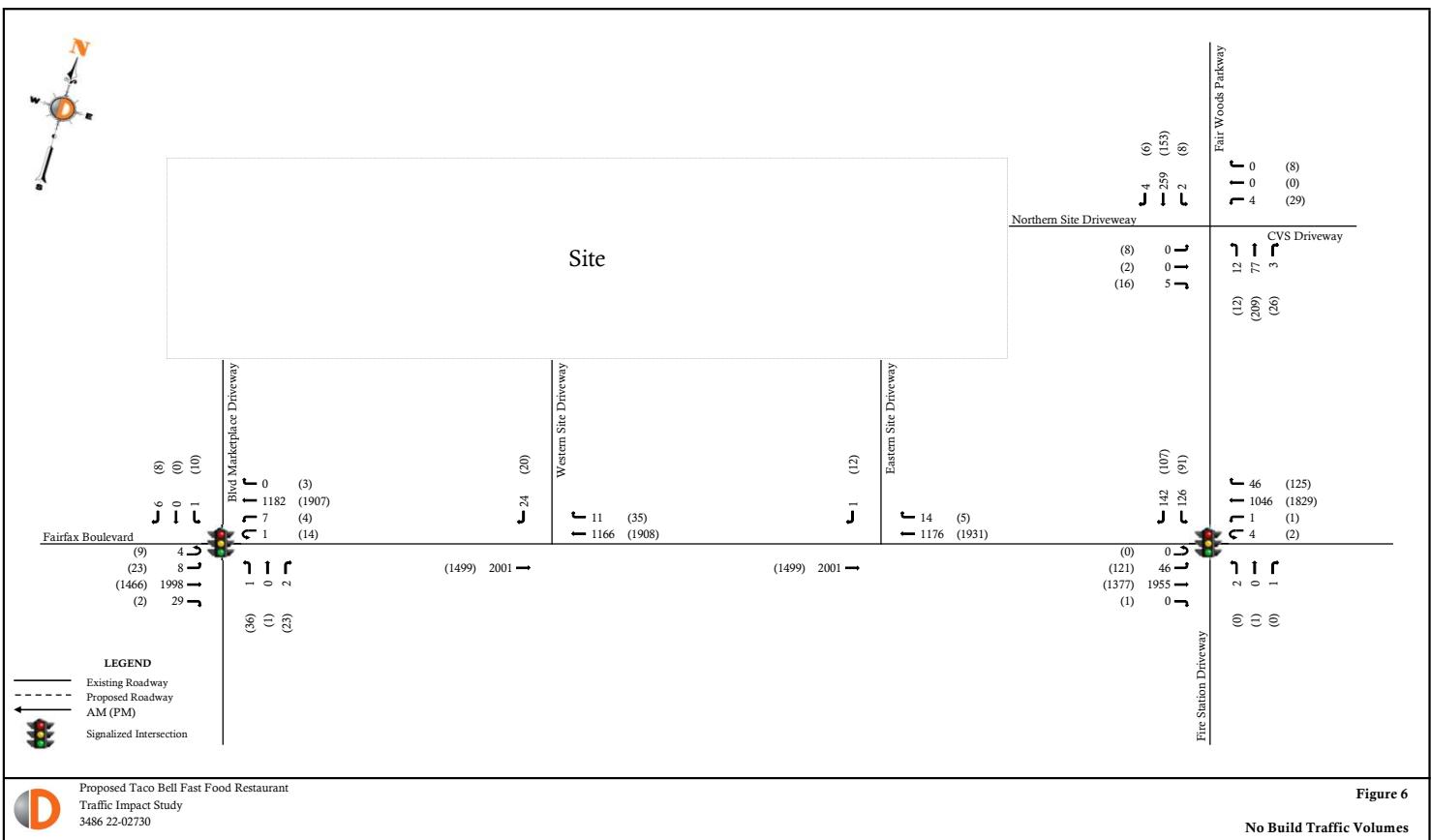


**Figure 3**  
**Adjacent Development Traffic Volumes**  
**[N29 WillowWood Apartments]**





**Figure 5**  
**Adjacent Development Traffic Volumes**  
**[Northfax Development - Phase 2]**



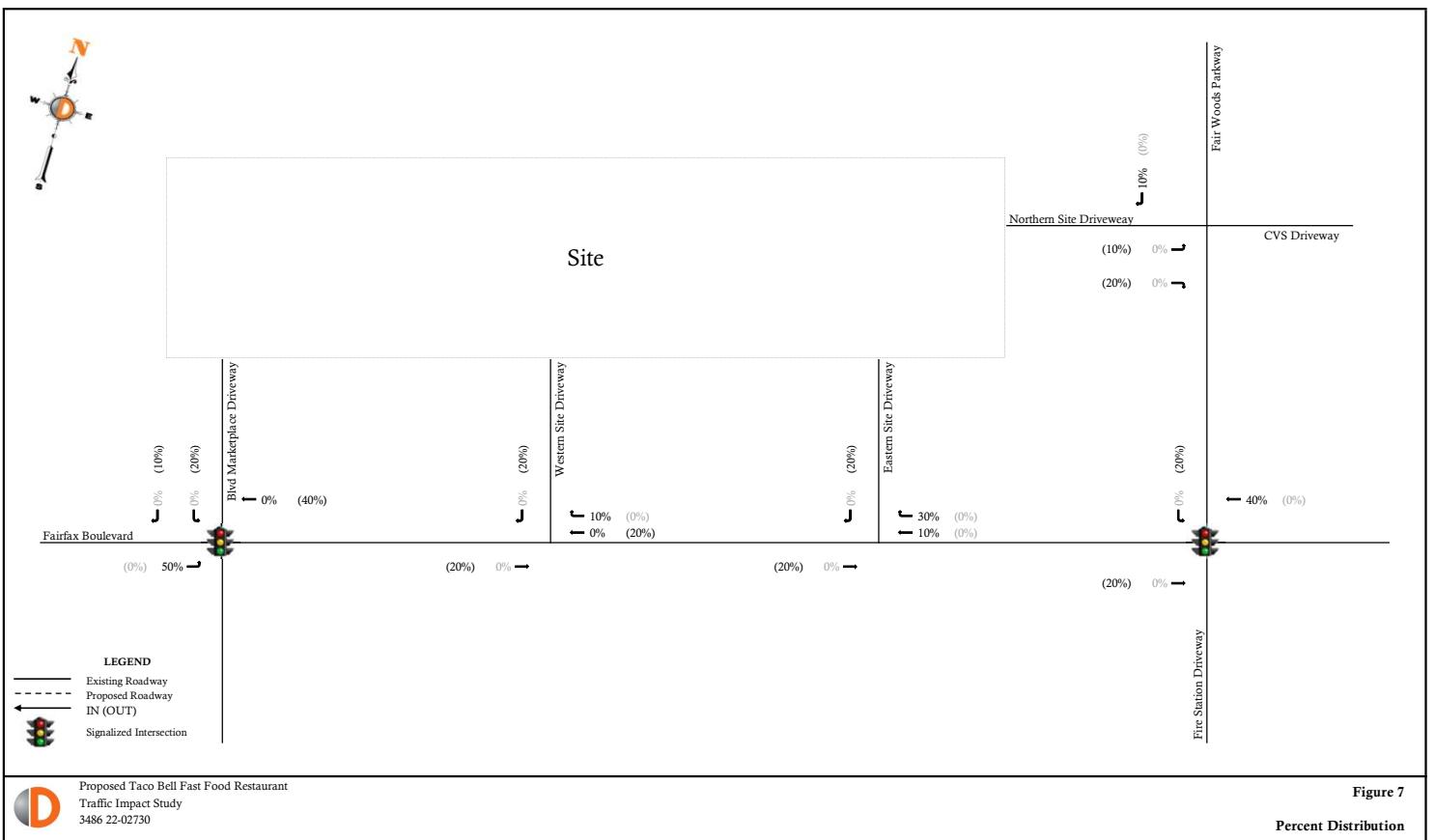
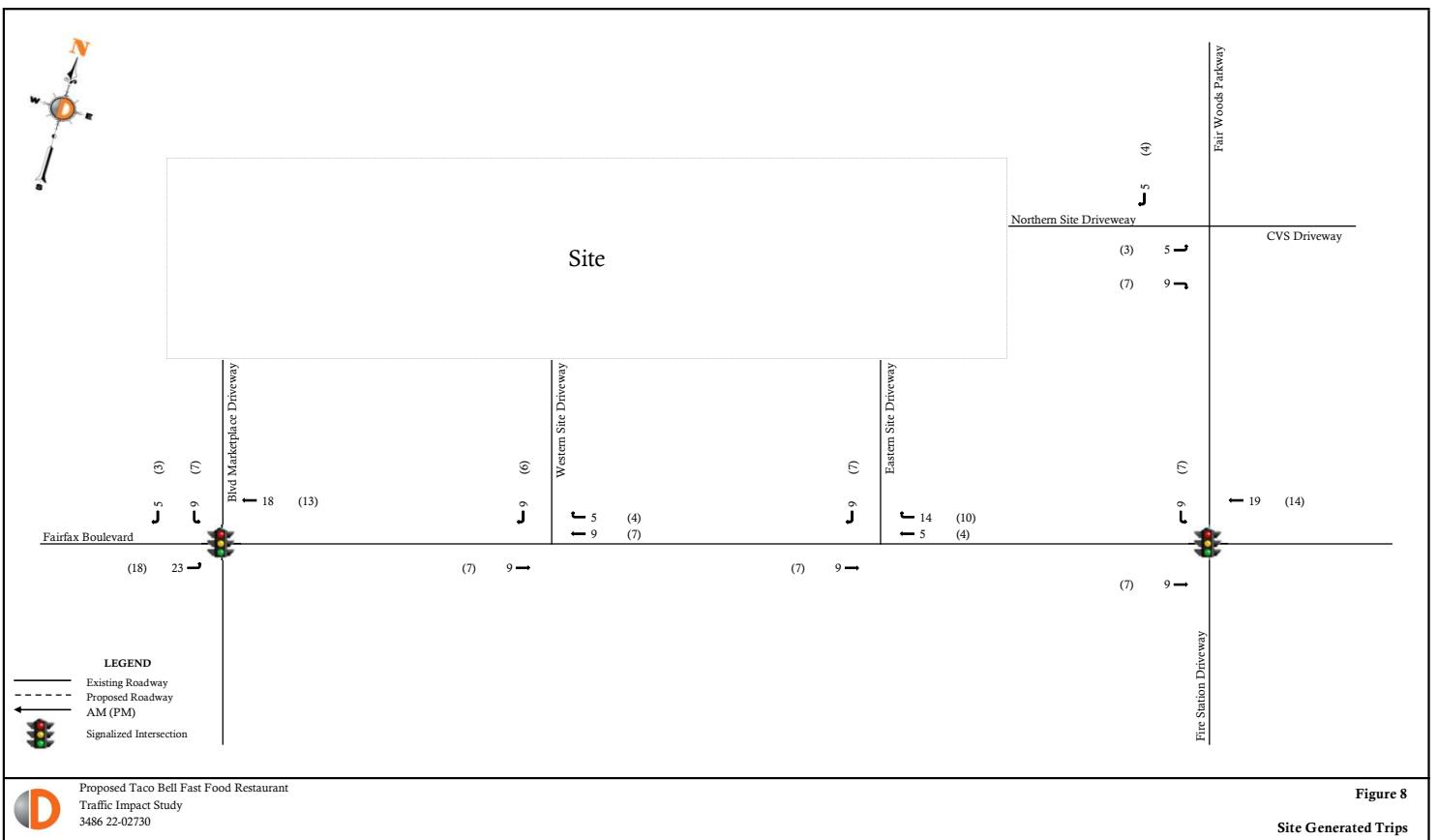
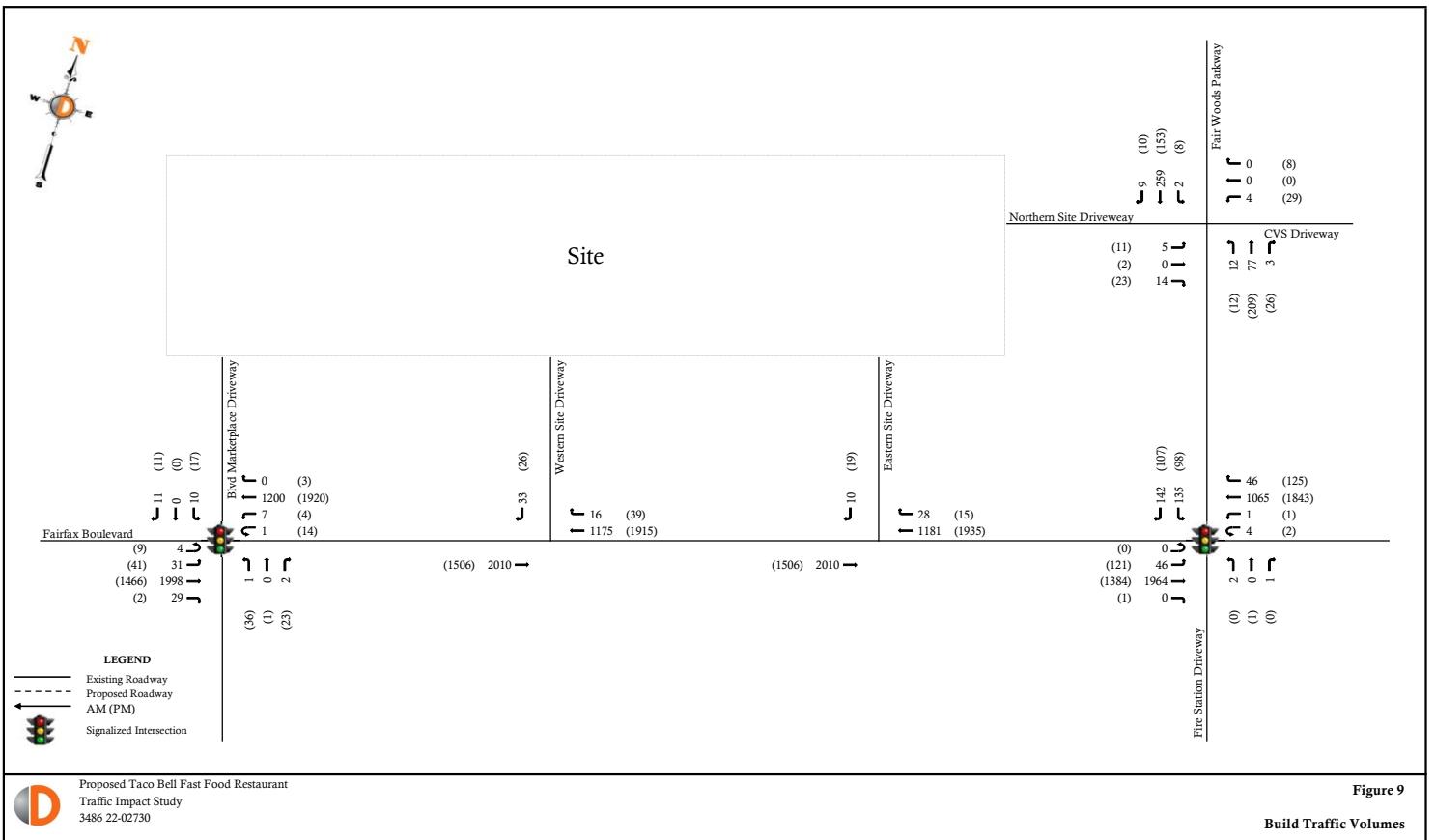


Figure 7

Percent Distribution



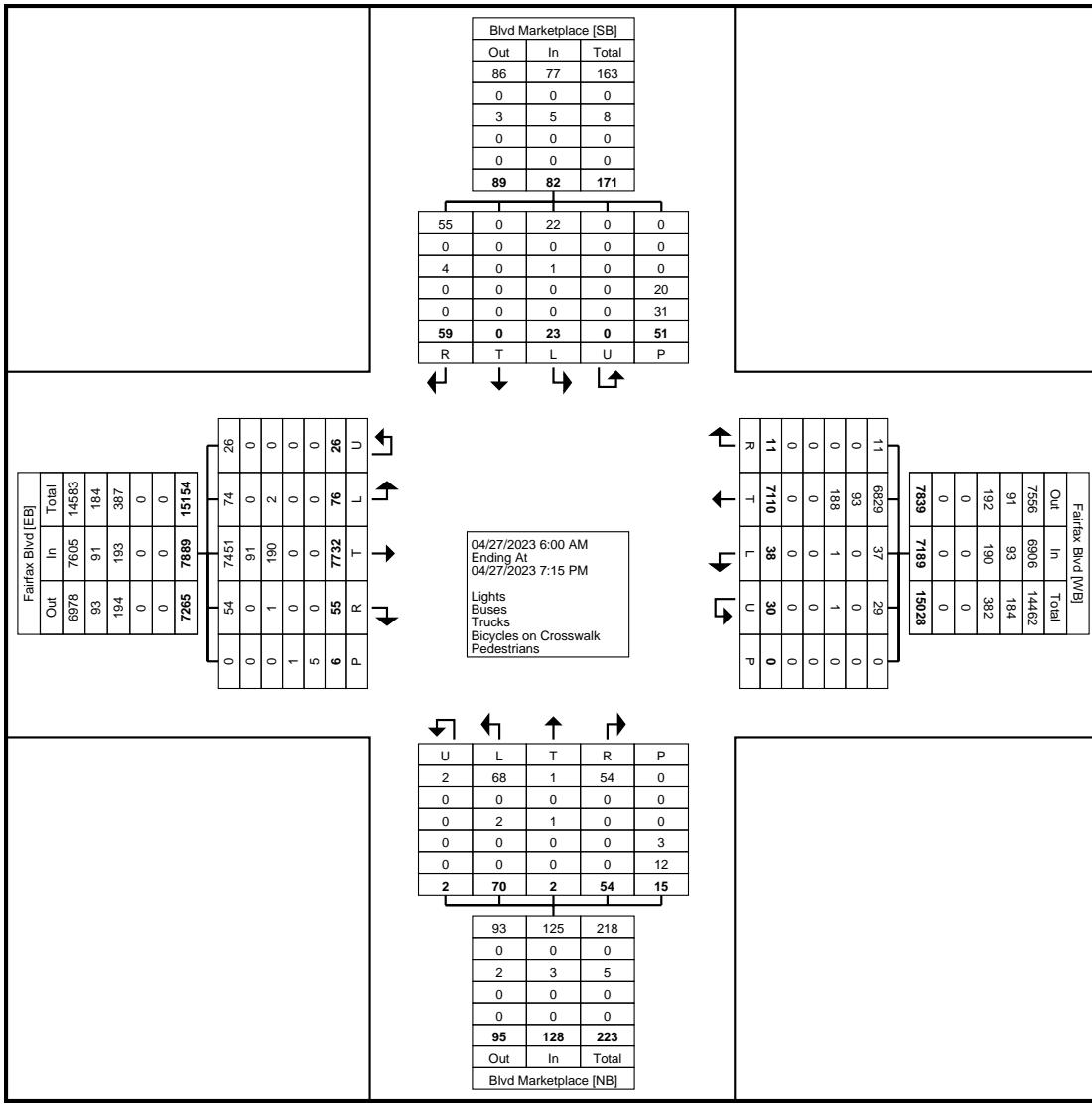


## **Appendix B**

### **Project Information**

### Turning Movement Data

Start Time	Fairfax Blvd Eastbound							Fairfax Blvd Westbound							Blvd Marketplace Northbound							Blvd Marketplace Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	1	130	0	0	2	0	133	1	80	0	0	0	0	81	0	0	0	0	0	1	0	0	0	0	0	0	0	214	
6:15 AM	0	213	0	0	0	0	213	0	93	0	0	1	0	94	0	0	0	0	0	2	0	0	0	0	0	0	0	307	
6:30 AM	0	242	3	0	0	0	245	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	345	
6:45 AM	0	255	1	0	0	0	256	1	136	0	0	0	0	137	0	0	0	0	0	0	0	0	0	0	0	0	0	393	
Hourly Total	1	840	4	0	2	0	847	2	409	0	0	1	0	412	0	0	0	0	0	3	0	0	0	0	0	0	2	1259	
7:00 AM	0	307	2	0	1	0	310	1	181	0	0	0	0	182	0	0	0	0	0	0	0	0	0	0	0	0	3	492	
7:15 AM	1	392	3	0	0	1	396	4	178	0	0	0	0	182	1	0	0	0	0	3	1	0	0	0	0	0	2	579	
7:30 AM	0	469	2	0	0	0	471	2	223	0	0	0	0	225	0	0	0	0	0	0	0	0	0	1	0	0	1	697	
7:45 AM	4	526	6	0	1	0	537	3	288	0	0	0	0	291	0	0	0	0	0	0	0	0	0	1	1	0	0	830	
Hourly Total	5	1694	13	0	2	1	1714	10	870	0	0	0	0	880	1	0	0	0	0	3	1	0	0	1	2	0	5	3	2598
8:00 AM	1	486	6	0	3	1	496	0	320	0	0	1	0	321	0	0	0	1	1	1	2	0	0	0	1	0	4	1	820
8:15 AM	3	331	12	2	0	1	348	2	257	0	0	0	0	259	1	0	0	1	0	1	2	1	0	0	2	0	1	3	612
8:30 AM	0	323	5	0	0	0	328	6	267	0	0	0	0	273	1	0	0	0	0	3	1	0	0	0	1	0	2	1	603
8:45 AM	0	327	7	3	0	0	337	6	272	0	0	1	0	279	1	0	0	0	0	0	1	0	0	1	1	0	3	2	619
Hourly Total	4	1467	30	5	3	2	1509	14	1116	0	0	2	0	1132	3	0	0	2	1	5	6	1	0	1	5	0	10	7	2654
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	5	285	0	0	2	1	292	2	436	1	0	3	0	442	6	1	0	4	1	0	12	1	0	0	3	0	1	4	750
4:15 PM	5	286	0	0	0	0	291	4	373	1	0	1	0	379	3	0	0	5	0	1	8	0	0	4	1	0	5	5	683
4:30 PM	5	349	0	0	1	0	355	1	446	0	0	0	0	447	7	0	1	5	0	1	13	1	0	1	5	0	5	7	822
4:45 PM	5	313	0	0	2	0	320	1	437	1	0	4	0	443	10	0	1	2	0	0	13	1	0	0	1	0	1	2	778
Hourly Total	20	1233	0	0	5	1	1258	8	1692	3	0	8	0	1711	26	1	2	16	1	2	46	3	0	5	10	0	12	18	3033
5:00 PM	7	328	0	0	3	0	338	0	390	1	0	4	0	395	9	1	2	3	0	0	15	2	0	2	0	0	0	4	752
5:15 PM	3	350	2	0	1	1	356	2	393	1	0	3	0	399	12	0	1	5	0	1	18	2	0	2	1	0	2	5	778
5:30 PM	8	346	0	0	3	1	357	1	346	0	0	3	0	350	4	0	0	9	0	0	13	5	0	1	1	0	3	7	727
5:45 PM	6	330	0	0	0	0	336	1	361	0	0	1	0	363	3	0	0	3	0	0	6	2	0	1	8	0	2	11	716
Hourly Total	24	1354	2	0	7	2	1387	4	1490	2	0	11	0	1507	28	1	3	20	0	1	52	11	0	6	10	0	9	27	2973
6:00 PM	3	294	1	0	2	0	300	0	437	1	0	1	0	439	3	0	0	2	0	0	5	0	0	3	1	0	5	4	748
6:15 PM	4	302	0	0	1	0	307	0	389	3	0	1	0	393	5	0	0	3	0	0	8	3	0	2	1	0	2	6	714
6:30 PM	5	261	0	0	2	0	268	0	397	2	0	3	0	402	2	0	0	3	0	1	5	2	0	2	3	0	4	7	682
6:45 PM	10	287	0	0	2	0	299	0	309	0	0	3	0	312	2	0	1	2	0	0	5	3	0	4	3	0	2	10	626
Hourly Total	22	1144	1	0	7	0	1174	0	1532	6	0	8	0	1546	12	0	1	10	0	1	23	8	0	11	8	0	13	27	2770
7:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Grand Total	76	7732	50	5	26	6	7889	38	7110	11	0	30	0	7189	70	2	6	48	2	15	128	23	0	24	35	0	51	82	15288
Approach %	1.0	98.0	0.6	0.1	0.3	-	-	0.5	98.9	0.2	0.0	0.4	-	-	54.7	1.6	4.7	37.5	1.6	-	-	28.0	0.0	29.3	42.7	0.0	-	-	
Total %	0.5	50.6	0.3	0.0	0.2	-	51.6	0.2	46.5	0.1	0.0	0.2	-	47.0	0.5	0.0	0.0	0.3	0.0	-	0.8	0.2	0.0	0.2	0.0	-	0.5	-	
Lights	74	7451	50	4	26	-	7605	37	6829	11	0	29	-	6906	68	1	6	48	2	-	125	22	0	21	34	0	-	77	14713
% Lights	97.4	96.4	100.0	80.0	100.0	-	96.4	97.4	96.0	100.0	-	96.7	-	96.1	97.1	50.0	100.0	100.0	100.0	-	97.7	95.7	-	87.5	97.1	-	-	93.9	96.2
Buses	0	91	0	0	0	-	91	0	93	0	0	0	-	93	0	0	0	0	0	-	0	0	0	0	0	-	0	184	
% Buses	0.0	1.2	0.0	0.0	0.0	-	1.2	0.0	1.3	0.0	-	0.0	-	1.3	0.0	0.0	0.0	0.0	0.0	-	0.0	0	0.0	0.0	-	0.0	1.2		
Trucks	2	190	0	1	0	-	193	1	188	0	0	1	-	190	2	1	0	0	0	-	3	1	0	3	1	0	-	5	391
% Trucks	2.6	2.5	0.0	20.0	0.0	-	2.4	2.6	2.6	0.0	-	3.3	-	2.6	2.9	50.0	0.0	0.0	0.0	-	2.3	4.3	-	12.5	2.9	-	-	6.1	2.6
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	-	3	-	-	-	-	-	20	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	16.7	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	-	-	-	39.2	-	-	
Pedestrian s	-	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	-	-	12	-	-	-	-	-	31	-	-	
% Pedestrian s	-	-	-	-	-	83.3	-	-	-	-	-	-	-	-	-	-	-	-	-	80.0	-	-	-	-	-	60.8	-	-	



Turning Movement Data Plot

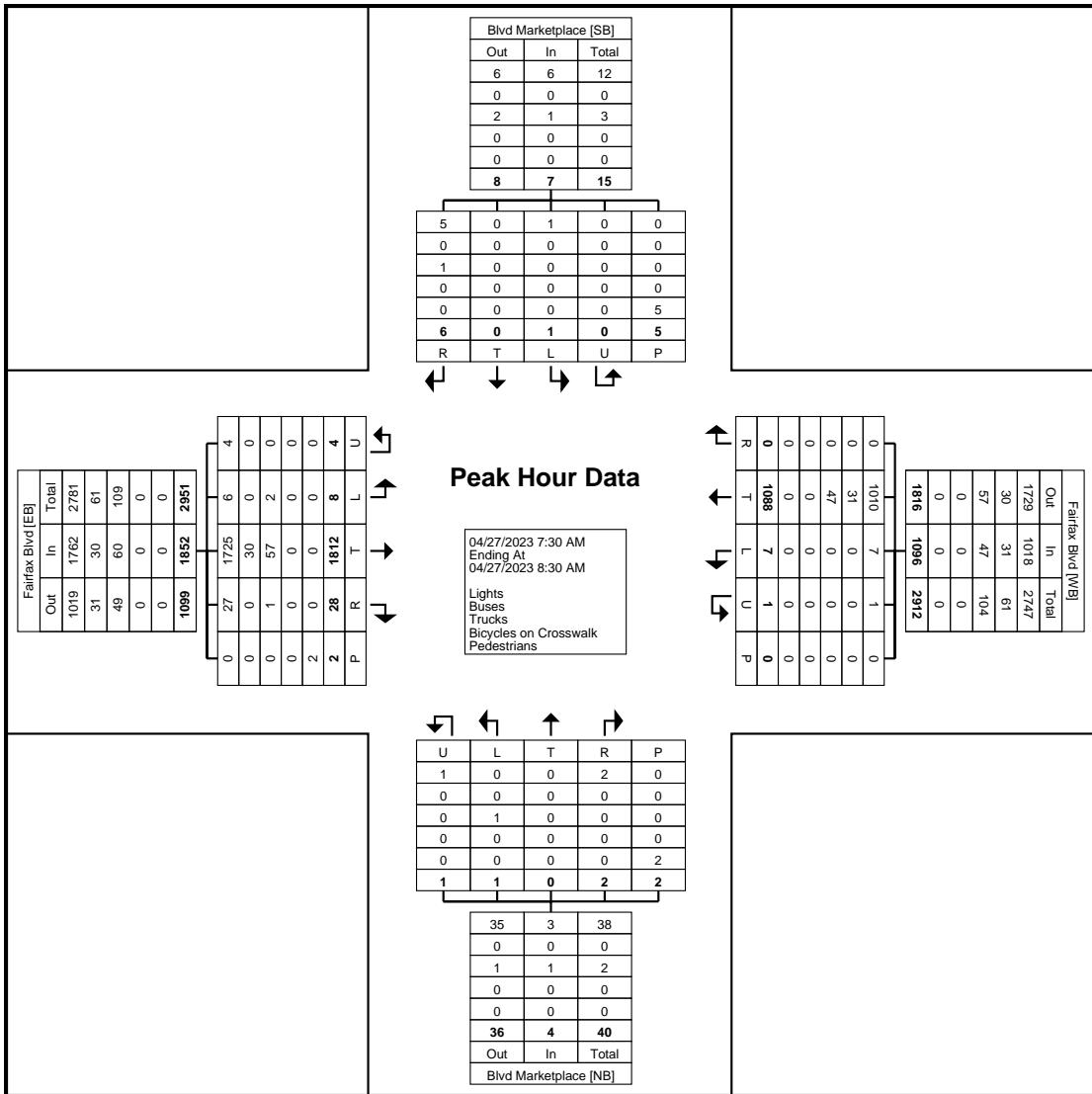
### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Fairfax Blvd Eastbound							Fairfax Blvd Westbound							Blvd Marketplace Northbound							Blvd Marketplace Southbound							Int. Total	
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total		
7:30 AM	0	469	2	0	0	0	471	2	223	0	0	0	0	225	0	0	0	0	0	0	0	0	0	1	0	0	1	697		
7:45 AM	4	526	6	0	1	0	537	3	288	0	0	0	0	291	0	0	0	0	0	0	0	0	1	1	0	0	0	2	830	
8:00 AM	1	486	6	0	3	1	496	0	320	0	0	1	0	321	0	0	0	1	1	1	2	0	0	0	1	0	4	1	820	
8:15 AM	3	331	12	2	0	1	348	2	257	0	0	0	0	259	1	0	0	1	1	2	2	1	0	0	2	0	1	3	612	
Total	8	1812	26	2	4	2	1852	7	1088	0	0	1	0	1096	1	0	0	2	1	2	4	1	0	1	5	0	5	7	2959	
Approach %	0.4	97.8	1.4	0.1	0.2	-	-	0.6	99.3	0.0	0.0	0.1	-	-	25.0	0.0	0.0	50.0	25.0	-	-	14.3	0.0	14.3	71.4	0.0	-	-	-	
Total %	0.3	61.2	0.9	0.1	0.1	-	62.6	0.2	36.8	0.0	0.0	0.0	-	37.0	0.0	0.0	0.0	0.1	0.0	-	0.1	0.0	0.0	0.2	0.0	-	0.2	-		
PHF	0.50	0.861	0.542	0.250	0.333	-	0.862	0.583	0.850	0.000	0.000	0.250	-	0.854	0.250	0.000	0.000	0.500	0.250	-	0.500	0.250	0.000	0.250	0.625	0.000	-	0.583	0.891	
Lights	6	1725	26	1	4	-	1762	7	1010	0	0	1	-	1018	0	0	0	2	1	-	3	1	0	0	5	0	-	6	2789	
% Lights	75.0	95.2	100.0	50.0	100.0	-	95.1	100.0	92.8	-	-	100.0	-	92.9	0.0	-	-	100.0	100.0	-	-	75.0	100.0	-	0.0	100.0	-	-	85.7	94.3
Buses	0	30	0	0	0	-	30	0	31	0	0	0	-	31	0	0	0	0	0	-	0	0	0	0	0	0	-	0	61	
% Buses	0.0	1.7	0.0	0.0	0.0	-	1.6	0.0	2.8	-	-	0.0	-	2.8	0.0	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	2.1		
Trucks	2	57	0	1	0	-	60	0	47	0	0	0	-	47	1	0	0	0	0	-	1	0	0	1	0	0	-	1	109	
% Trucks	25.0	3.1	0.0	50.0	0.0	-	3.2	0.0	4.3	-	-	0.0	-	4.3	100.0	-	-	0.0	0.0	-	25.0	0.0	-	100.0	0.0	-	-	14.3	3.7	
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	5	-	-	
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	

Fairfax, VA  
Fairfax Blvd & Blvd Marketplace  
Thursday, April 27, 2023  
Location: 38.861456, -  
77.297268

Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

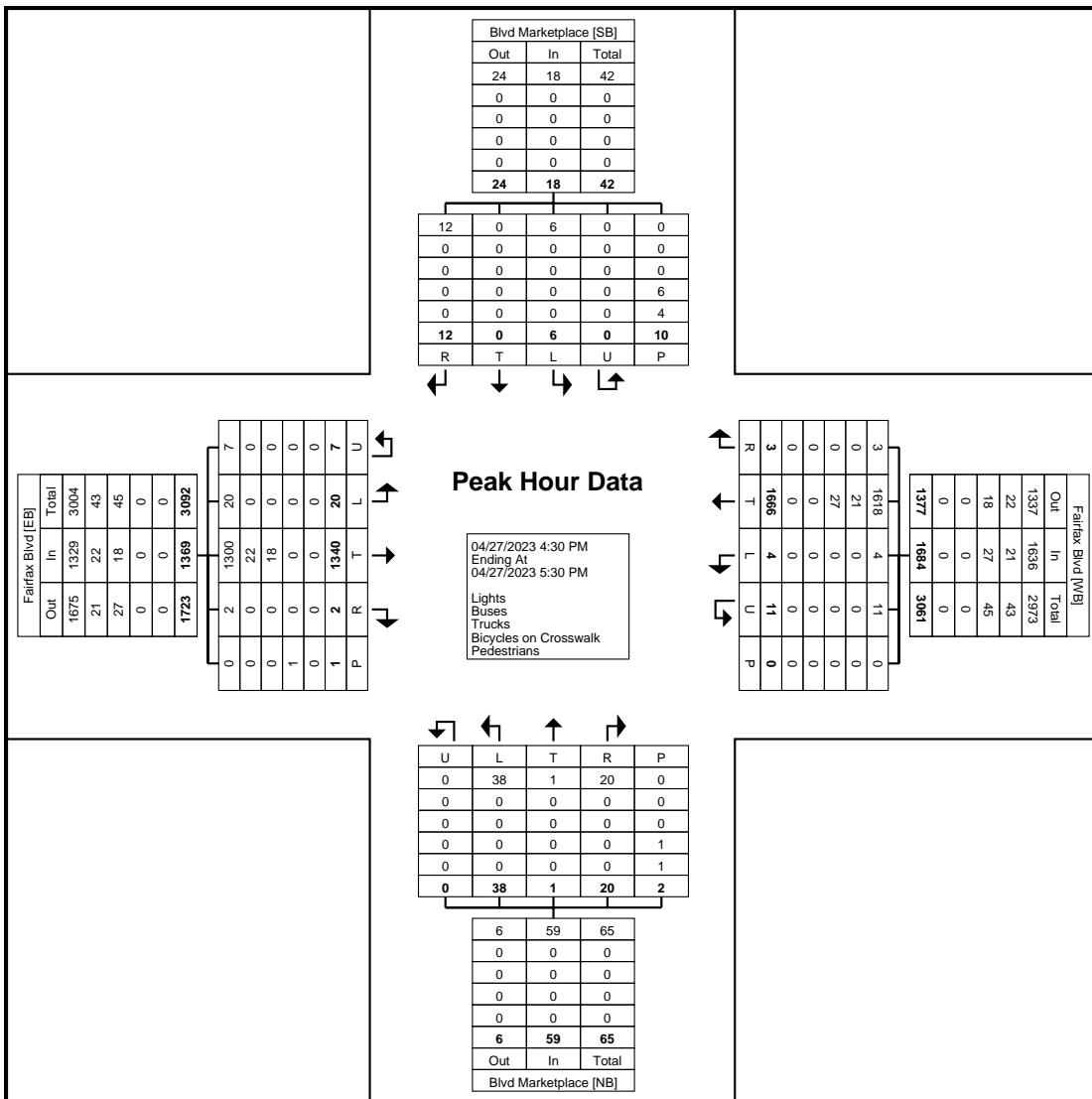
Count Name: Fairfax Boulevard  
& Blvd Marketplace  
Site Code:  
Start Date: 04/27/2023  
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

### Turning Movement Peak Hour Data (4:30 PM)

Start Time	Fairfax Blvd Eastbound							Fairfax Blvd Westbound							Blvd Marketplace Northbound							Blvd Marketplace Southbound							Int. Total	
	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total		
4:30 PM	5	349	0	0	1	0	355	1	446	0	0	0	0	447	7	0	1	5	0	1	13	1	0	1	5	0	5	7	822	
4:45 PM	5	313	0	0	2	0	320	1	437	1	0	4	0	443	10	0	1	2	0	0	13	1	0	0	1	0	1	2	778	
5:00 PM	7	328	0	0	3	0	338	0	390	1	0	4	0	395	9	1	2	3	0	0	15	2	0	2	0	0	2	4	752	
5:15 PM	3	350	2	0	1	1	356	2	393	1	0	3	0	399	12	0	1	5	0	1	18	2	0	2	1	0	2	5	778	
Total	20	1340	2	0	7	1	1369	4	1666	3	0	11	0	1684	38	1	5	15	0	2	59	6	0	5	7	0	10	18	3130	
Approach %	1.5	97.9	0.1	0.0	0.5	-	-	0.2	98.9	0.2	0.0	0.7	-	-	64.4	1.7	8.5	25.4	0.0	-	-	33.3	0.0	27.8	38.9	0.0	-	-	-	
Total %	0.6	42.8	0.1	0.0	0.2	-	43.7	0.1	53.2	0.1	0.0	0.4	-	53.8	1.2	0.0	0.2	0.5	0.0	-	1.9	0.2	0.0	0.2	0.2	0.0	-	0.6	-	
PHF	0.71	0.957	0.250	0.000	0.583	-	0.961	0.500	0.934	0.750	0.000	0.688	-	0.942	0.792	0.250	0.625	0.750	0.000	-	0.819	0.750	0.000	0.625	0.350	0.000	-	0.643	0.952	
Lights	20	1300	2	0	7	-	1329	4	1618	3	0	11	-	1636	38	1	5	15	0	-	59	6	0	5	7	0	-	18	3042	
% Lights	100.0	97.0	100.0	-	100.0	-	97.1	100.0	97.1	100.0	-	100.0	-	97.1	100.0	100.0	100.0	100.0	-	-	100.0	100.0	-	100.0	100.0	-	-	100.0	97.2	
Buses	0	22	0	0	0	-	22	0	21	0	0	0	-	21	0	0	0	0	0	-	0	0	0	0	0	0	-	0	43	
% Buses	0.0	1.6	0.0	-	0.0	-	1.6	0.0	1.3	0.0	-	0.0	-	1.2	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	1.4	
Trucks	0	18	0	0	0	-	18	0	27	0	0	0	-	27	0	0	0	0	0	-	0	0	0	0	0	0	-	0	45	
% Trucks	0.0	1.3	0.0	-	0.0	-	1.3	0.0	1.6	0.0	-	0.0	-	1.6	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	1.4	
Bicycles on Crosswalk	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	6	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	60.0	-	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	40.0	-	-



Turning Movement Peak Hour Data Plot (4:30 PM)



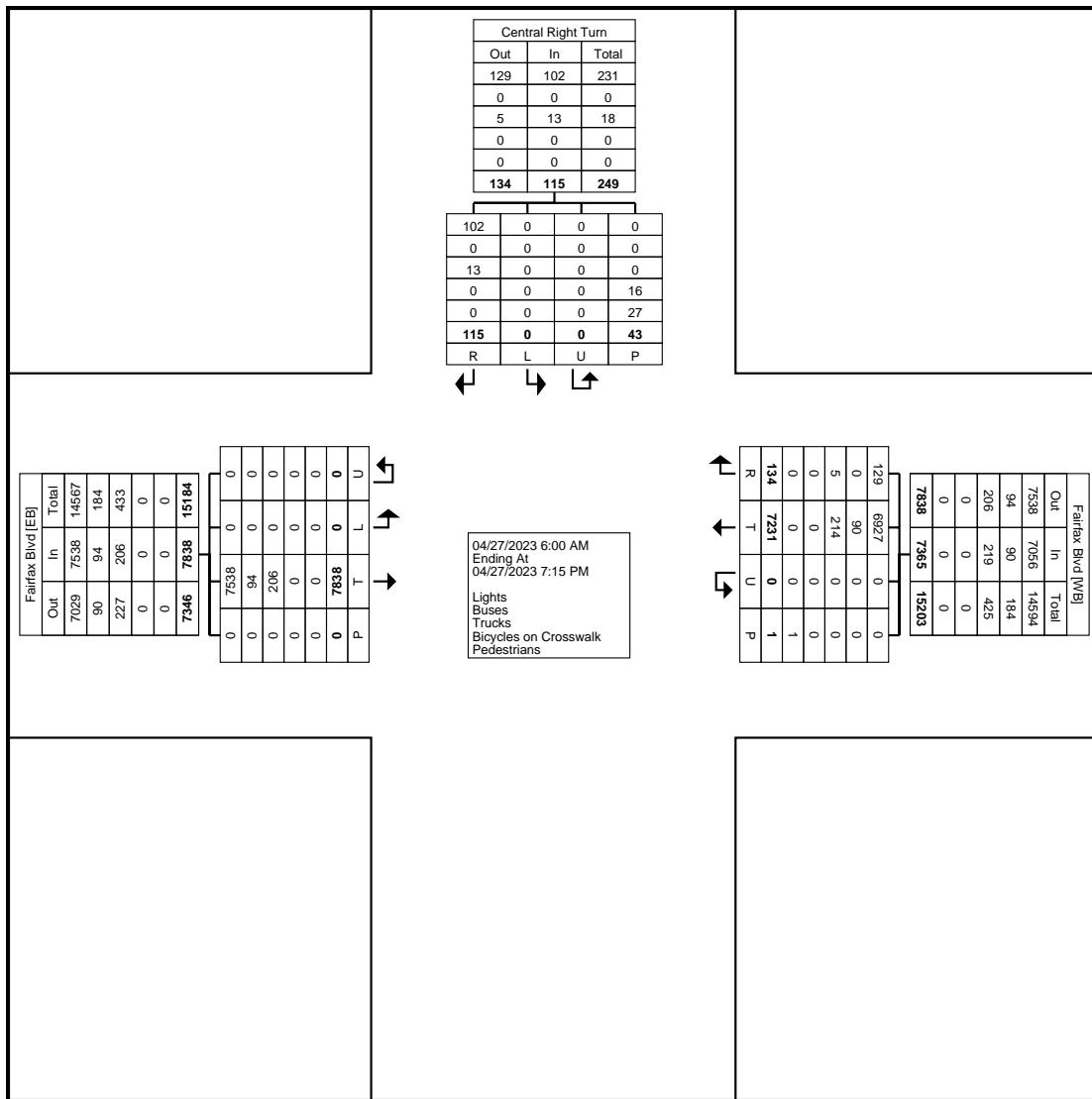
Fairfax, VA  
 Fairfax Blvd & Central Rt In/Rt  
 Out Driveway  
 Thursday, April 27, 2023  
 Location: 38.861896, -77.295274

www.TSTData.com  
 184 Baker Rd  
 Coatesville, Pennsylvania, United States 19320  
 610-466-1469  
 Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard & Central Right Turn In/Right Turn Out Driveway  
 Site Code:  
 Start Date: 04/27/2023  
 Page No: 1

### Turning Movement Data

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Central Right Turn In/Right Turn Out Driveway Southbound					
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	144	0	0	144	74	1	0	0	75	0	2	0	0	2	221
6:15 AM	0	208	0	0	208	90	3	0	0	93	0	2	0	2	2	303
6:30 AM	0	248	0	0	248	107	1	0	0	108	0	2	0	0	2	358
6:45 AM	0	272	0	0	272	133	2	0	0	135	0	2	0	0	2	409
Hourly Total	0	872	0	0	872	404	7	0	0	411	0	8	0	2	8	1291
7:00 AM	0	300	0	0	300	175	1	0	0	176	0	3	0	3	3	479
7:15 AM	0	387	0	0	387	188	2	0	0	190	0	4	0	0	4	581
7:30 AM	0	504	0	0	504	244	3	0	0	247	0	5	0	0	5	756
7:45 AM	0	525	0	0	525	257	5	0	0	262	0	8	0	1	8	795
Hourly Total	0	1716	0	0	1716	864	11	0	0	875	0	20	0	4	20	2611
8:00 AM	0	476	0	0	476	327	1	0	0	328	0	4	0	3	4	808
8:15 AM	0	337	0	0	337	254	2	0	0	256	0	7	0	0	7	600
8:30 AM	0	345	0	0	345	262	3	0	0	265	0	5	0	2	5	615
8:45 AM	0	336	0	0	336	271	2	0	0	273	0	0	0	1	0	609
Hourly Total	0	1494	0	0	1494	1114	8	0	0	1122	0	16	0	6	16	2632
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	289	0	0	289	421	9	0	0	430	0	6	0	1	6	725
4:15 PM	0	298	0	0	298	360	13	0	0	373	0	5	0	6	5	676
4:30 PM	0	325	0	0	325	434	9	0	1	443	0	6	0	2	6	774
4:45 PM	0	317	0	0	317	440	5	0	0	445	0	2	0	1	2	764
Hourly Total	0	1229	0	0	1229	1655	36	0	1	1691	0	19	0	10	19	2939
5:00 PM	0	355	0	0	355	432	6	0	0	438	0	3	0	0	3	796
5:15 PM	0	366	0	0	366	445	9	0	0	454	0	10	0	0	10	830
5:30 PM	0	350	0	0	350	446	14	0	0	460	0	5	0	0	5	815
5:45 PM	0	340	0	0	340	406	9	0	0	415	0	3	0	2	3	758
Hourly Total	0	1411	0	0	1411	1729	38	0	0	1767	0	21	0	2	21	3199
6:00 PM	0	270	0	0	270	425	6	0	0	431	0	5	0	8	5	706
6:15 PM	0	306	0	0	306	379	12	0	0	391	0	6	0	5	6	703
6:30 PM	0	260	0	0	260	368	9	0	0	377	0	9	0	4	9	646
6:45 PM	0	279	0	0	279	292	7	0	0	299	0	11	0	2	11	589
Hourly Total	0	1115	0	0	1115	1464	34	0	0	1498	0	31	0	19	31	2644
7:00 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
Grand Total	0	7838	0	0	7838	7231	134	0	1	7365	0	115	0	43	115	15318
Approach %	0.0	100.0	0.0	-	-	98.2	1.8	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	51.2	0.0	-	51.2	47.2	0.9	0.0	-	48.1	0.0	0.8	0.0	-	0.8	-
Lights	0	7538	0	-	7538	6927	129	0	-	7056	0	102	0	-	102	14696
% Lights	-	96.2	-	-	96.2	95.8	96.3	-	-	95.8	-	88.7	-	-	88.7	95.9
Buses	0	94	0	-	94	90	0	0	-	90	0	0	0	-	0	184
% Buses	-	1.2	-	-	1.2	1.2	0.0	-	-	1.2	-	0.0	-	-	0.0	1.2
Trucks	0	206	0	-	206	214	5	0	-	219	0	13	0	-	13	438
% Trucks	-	2.6	-	-	2.6	3.0	3.7	-	-	3.0	-	11.3	-	-	11.3	2.9
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	16	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	37.2	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	62.8	-	-



Turning Movement Data Plot

Fairfax, VA  
Fairfax Blvd & Central Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.861896, -  
77.295274

www.TSTData.com  
184 Baker Rd  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Central Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 3

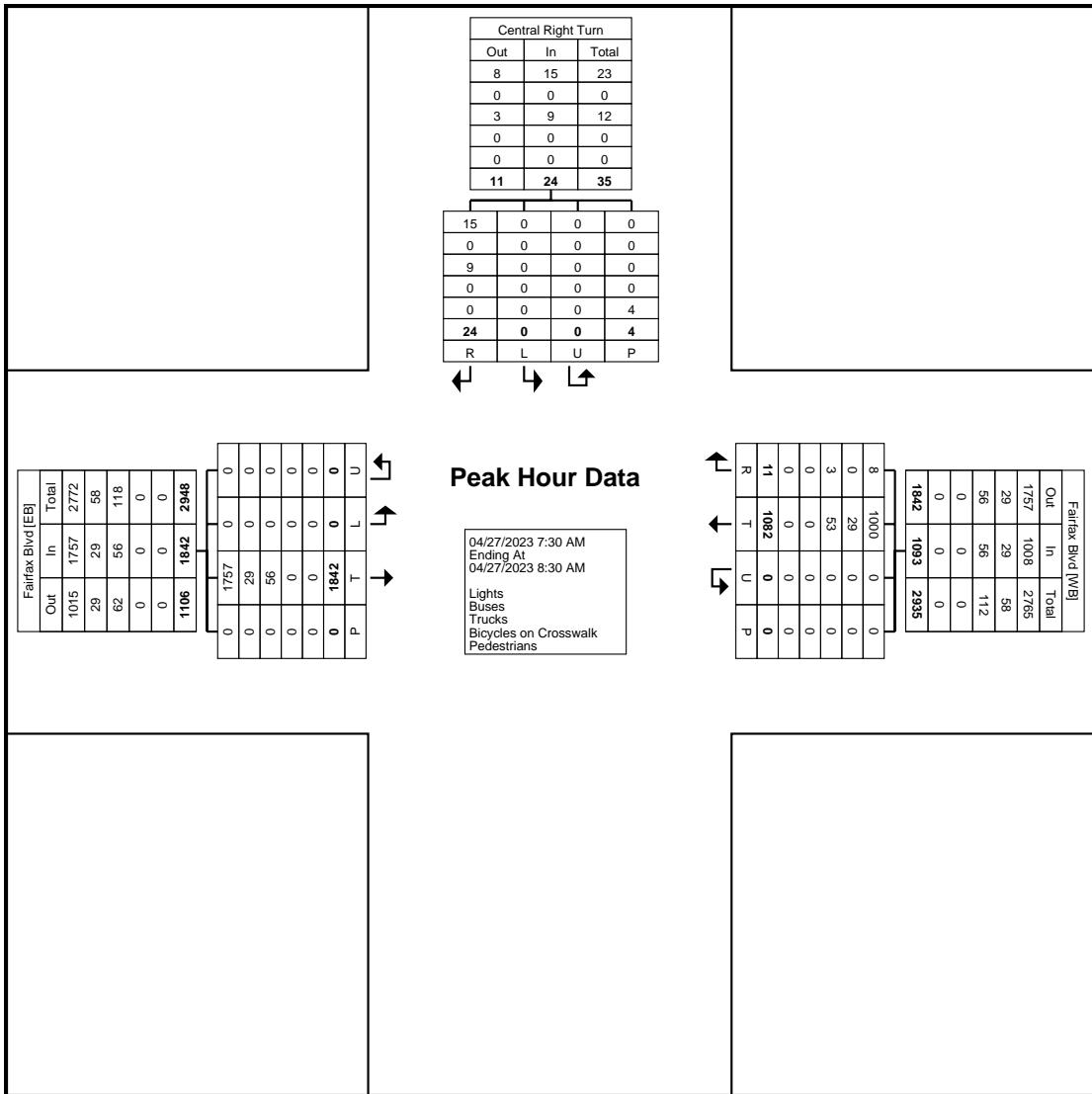
### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Central Right Turn In/Right Turn Out Driveway Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:30 AM	0	504	0	0	504	244	3	0	0	247	0	5	0	0	5	756
7:45 AM	0	525	0	0	525	257	5	0	0	262	0	8	0	1	8	795
8:00 AM	0	476	0	0	476	327	1	0	0	328	0	4	0	3	4	808
8:15 AM	0	337	0	0	337	254	2	0	0	256	0	7	0	0	7	600
Total	0	1842	0	0	1842	1082	11	0	0	1093	0	24	0	4	24	2959
Approach %	0.0	100.0	0.0	-	-	99.0	1.0	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	62.3	0.0	-	62.3	36.6	0.4	0.0	-	36.9	0.0	0.8	0.0	-	0.8	-
PHF	0.000	0.877	0.000	-	0.877	0.827	0.550	0.000	-	0.833	0.000	0.750	0.000	-	0.750	0.916
Lights	0	1757	0	-	1757	1000	8	0	-	1008	0	15	0	-	15	2780
% Lights	-	95.4	-	-	95.4	92.4	72.7	-	-	92.2	-	62.5	-	-	62.5	94.0
Buses	0	29	0	-	29	29	0	0	-	29	0	0	0	-	0	58
% Buses	-	1.6	-	-	1.6	2.7	0.0	-	-	2.7	-	0.0	-	-	0.0	2.0
Trucks	0	56	0	-	56	53	3	0	-	56	0	9	0	-	9	121
% Trucks	-	3.0	-	-	3.0	4.9	27.3	-	-	5.1	-	37.5	-	-	37.5	4.1
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fairfax, VA  
Fairfax Blvd & Central Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.861896, -  
77.295274

www.TSTData.com  
184 Baker Rd  
  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Central Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

Fairfax, VA  
Fairfax Blvd & Central Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.861896, -  
77.295274

www.TSTData.com  
184 Baker Rd  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Central Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 5

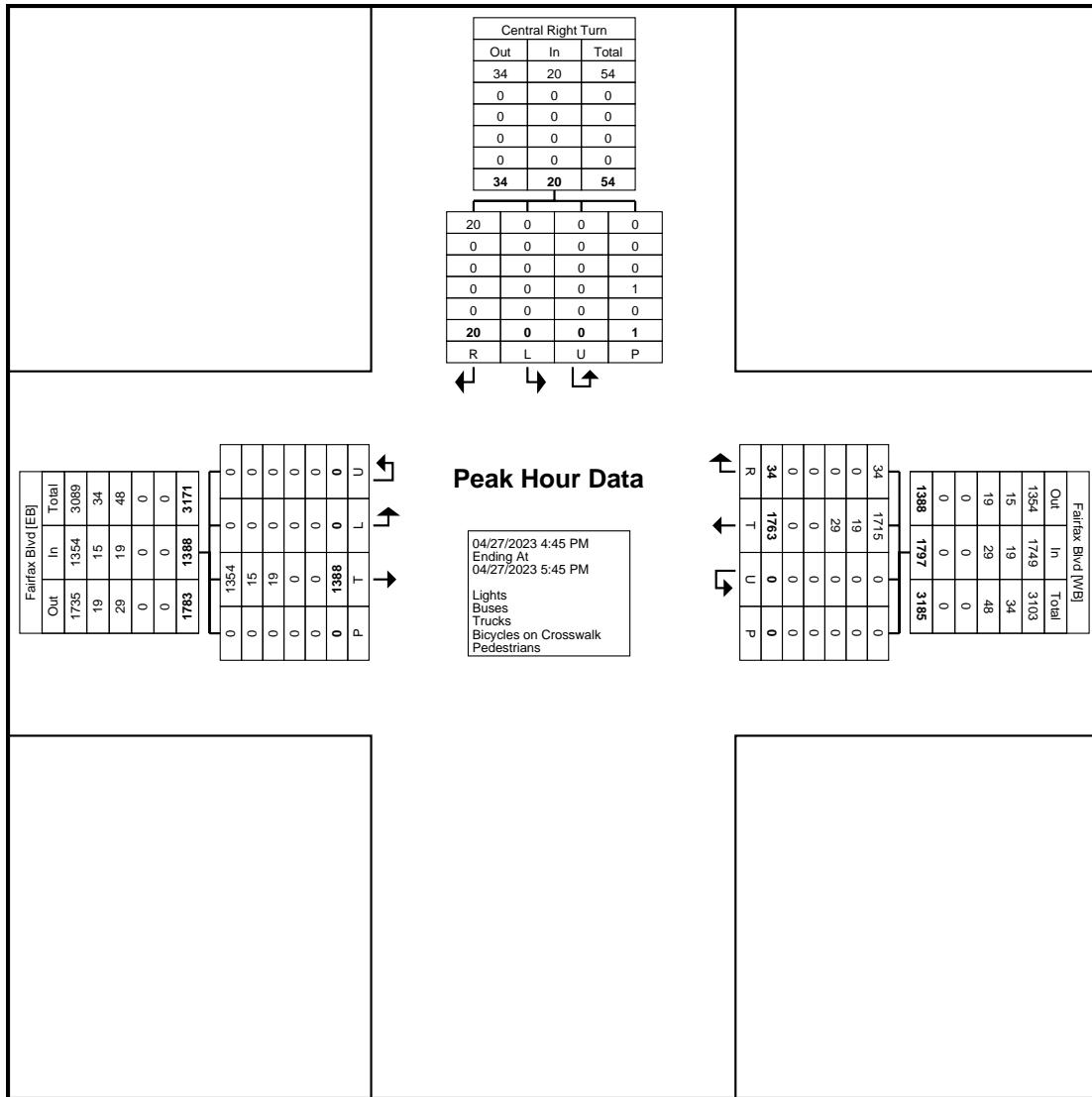
### Turning Movement Peak Hour Data (4:45 PM)

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Central Right Turn In/Right Turn Out Driveway Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
4:45 PM	0	317	0	0	317	440	5	0	0	445	0	2	0	1	2	764
5:00 PM	0	355	0	0	355	432	6	0	0	438	0	3	0	0	3	796
5:15 PM	0	366	0	0	366	445	9	0	0	454	0	10	0	0	10	830
5:30 PM	0	350	0	0	350	446	14	0	0	460	0	5	0	0	5	815
Total	0	1388	0	0	1388	1763	34	0	0	1797	0	20	0	1	20	3205
Approach %	0.0	100.0	0.0	-	-	98.1	1.9	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	43.3	0.0	-	43.3	55.0	1.1	0.0	-	56.1	0.0	0.6	0.0	-	0.6	-
PHF	0.000	0.948	0.000	-	0.948	0.988	0.607	0.000	-	0.977	0.000	0.500	0.000	-	0.500	0.965
Lights	0	1354	0	-	1354	1715	34	0	-	1749	0	20	0	-	20	3123
% Lights	-	97.6	-	-	97.6	97.3	100.0	-	-	97.3	-	100.0	-	-	100.0	97.4
Buses	0	15	0	-	15	19	0	0	-	19	0	0	0	-	0	34
% Buses	-	1.1	-	-	1.1	1.1	0.0	-	-	1.1	-	0.0	-	-	0.0	1.1
Trucks	0	19	0	-	19	29	0	0	-	29	0	0	0	-	0	48
% Trucks	-	1.4	-	-	1.4	1.6	0.0	-	-	1.6	-	0.0	-	-	0.0	1.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-

Fairfax, VA  
Fairfax Blvd & Central Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.861896, -  
77.295274

www.TSTData.com  
184 Baker Rd  
  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Central Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 6



Turning Movement Peak Hour Data Plot (4:45 PM)

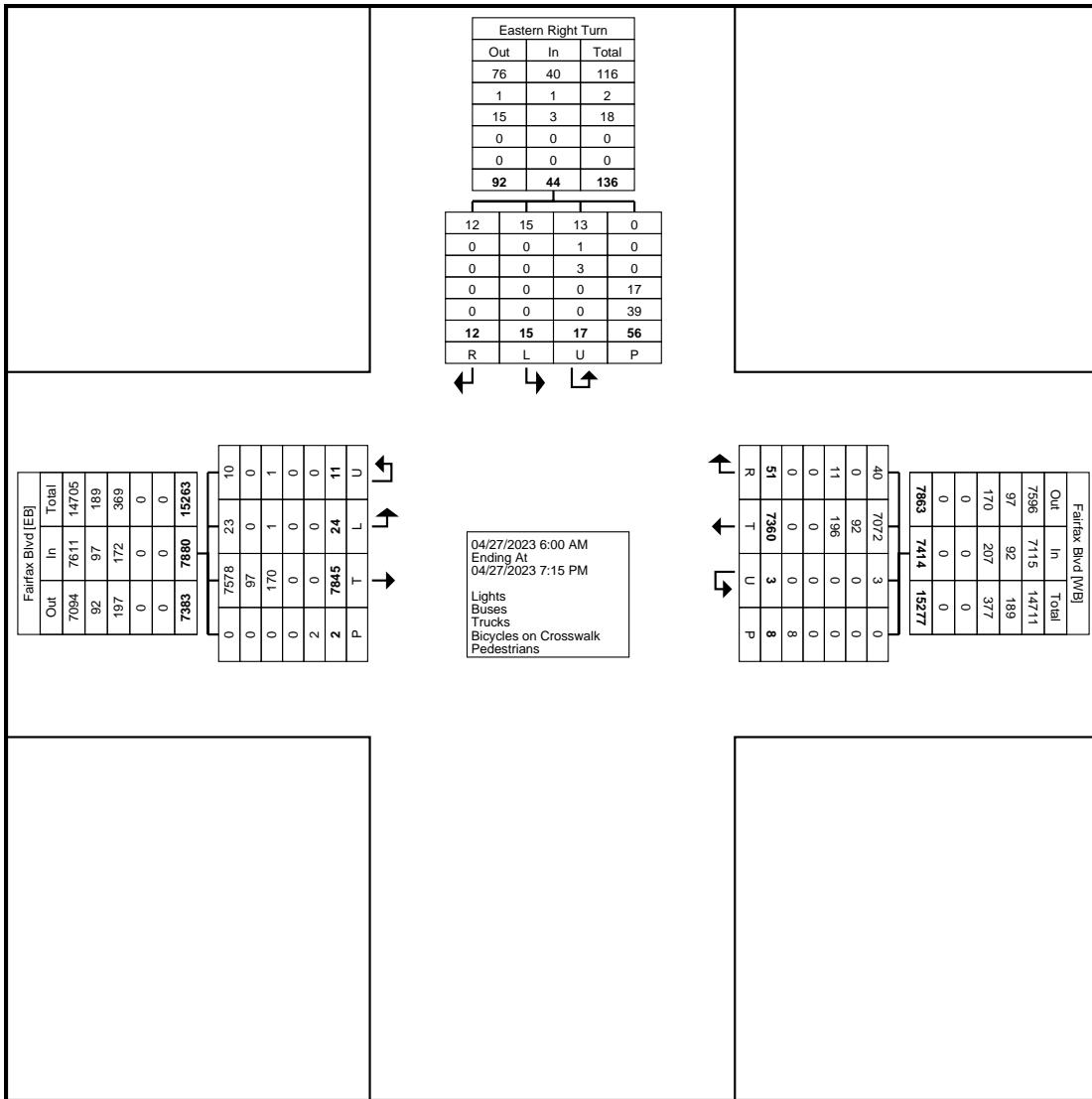
### Turning Movement Data

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Eastern Right Turn In/Right Turn Out Driveway Southbound					Int. Total		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds		
6:00 AM	0	139	0	0	139	78	1	0	0	0	79	0	0	0	0	0	218	
6:15 AM	0	204	0	0	204	92	0	0	0	0	92	0	0	0	0	2	296	
6:30 AM	0	254	0	0	254	109	0	0	0	1	109	0	0	0	0	0	363	
6:45 AM	1	297	0	0	298	134	0	0	0	3	134	0	0	0	0	0	432	
Hourly Total	1	894	0	0	895	413	1	0	0	4	414	0	0	0	0	2	0	1309
7:00 AM	0	305	0	0	305	179	3	0	0	0	182	0	0	0	0	2	0	487
7:15 AM	0	411	0	0	411	184	5	0	0	0	189	0	0	0	0	1	0	600
7:30 AM	1	538	1	0	540	245	4	0	0	0	249	0	0	0	0	0	0	789
7:45 AM	2	537	1	0	540	263	3	0	0	0	266	0	0	0	0	1	0	806
Hourly Total	3	1791	2	0	1796	871	15	0	0	0	886	0	0	0	0	4	0	2682
8:00 AM	0	467	0	0	467	334	4	0	0	0	338	0	0	0	0	3	0	805
8:15 AM	0	323	0	0	323	256	3	0	0	0	259	0	0	1	0	1	1	583
8:30 AM	0	332	0	0	332	267	2	0	1	0	270	0	0	1	0	1	1	603
8:45 AM	0	304	0	0	304	274	3	0	0	0	277	0	0	1	3	1	4	585
Hourly Total	0	1426	0	0	1426	1131	12	0	1	0	1144	0	0	3	3	6	6	2576
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	5	278	0	0	283	430	2	0	0	0	432	0	1	0	3	1	4	719
4:15 PM	1	280	0	0	281	373	4	0	0	0	377	3	0	0	0	6	3	661
4:30 PM	2	343	2	0	347	443	4	0	0	0	447	1	1	0	2	2	4	798
4:45 PM	4	307	2	0	313	439	1	0	0	0	440	1	1	0	0	3	2	755
Hourly Total	12	1208	4	0	1224	1685	11	0	0	0	1696	5	3	0	5	12	13	2933
5:00 PM	2	332	1	0	335	462	1	0	0	0	463	2	0	0	1	1	3	801
5:15 PM	1	368	0	0	369	440	1	0	0	0	441	1	0	0	1	5	2	812
5:30 PM	5	353	2	0	360	461	2	0	0	3	463	4	0	0	1	6	5	828
5:45 PM	0	328	2	0	330	412	1	0	2	0	415	0	0	0	0	5	0	745
Hourly Total	8	1381	5	0	1394	1775	5	0	2	3	1782	7	0	0	3	17	10	3186
6:00 PM	0	285	0	0	285	429	2	0	0	1	431	0	0	0	1	7	1	717
6:15 PM	0	302	0	1	302	393	2	0	0	0	395	0	1	0	2	2	3	700
6:30 PM	0	271	0	1	271	370	3	0	0	0	373	0	0	3	1	4	4	648
6:45 PM	0	287	0	0	287	292	0	0	0	0	292	3	0	2	2	2	7	586
Hourly Total	0	1145	0	2	1145	1484	7	0	0	1	1491	3	1	5	6	15	15	2651
7:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Grand Total	24	7845	11	2	7880	7360	51	0	3	8	7414	15	4	8	17	56	44	15338
Approach %	0.3	99.6	0.1	-	-	99.3	0.7	0.0	0.0	-	-	34.1	9.1	18.2	38.6	-	-	-
Total %	0.2	51.1	0.1	-	51.4	48.0	0.3	0.0	0.0	-	48.3	0.1	0.0	0.1	0.1	-	0.3	-
Lights	23	7578	10	-	7611	7072	40	0	3	-	7115	15	4	8	13	-	40	14766
% Lights	95.8	96.6	90.9	-	96.6	96.1	78.4	-	100.0	-	96.0	100.0	100.0	76.5	-	90.9	96.3	
Buses	0	97	0	-	97	92	0	0	0	-	92	0	0	0	1	-	1	190
% Buses	0.0	1.2	0.0	-	1.2	1.3	0.0	-	0.0	-	1.2	0.0	0.0	0.0	5.9	-	2.3	1.2
Trucks	1	170	1	-	172	196	11	0	0	-	207	0	0	0	3	-	3	382
% Trucks	4.2	2.2	9.1	-	2.2	2.7	21.6	-	0.0	-	2.8	0.0	0.0	0.0	17.6	-	6.8	2.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	17	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	30.4	-	-
Pedestrians	-	-	-	2	-	-	-	-	-	8	-	-	-	-	-	39	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	69.6	-	-

Fairfax, VA  
Fairfax Blvd & Eastern Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.862064, -  
77.294294

www.TSTData.com  
184 Baker Rd  
  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Eastern Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 2



Turning Movement Data Plot

Fairfax, VA  
 Fairfax Blvd & Eastern Rt In/Rt  
 Out Driveway  
 Thursday, April 27, 2023  
 Location: 38.862064, -  
 77.294294

www.TSTData.com  
 184 Baker Rd  
 Coatesville, Pennsylvania, United States 19320  
 610-466-1469  
 Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard & Eastern Right Turn In/Right Turn Out Driveway  
 Site Code:  
 Start Date: 04/27/2023  
 Page No: 3

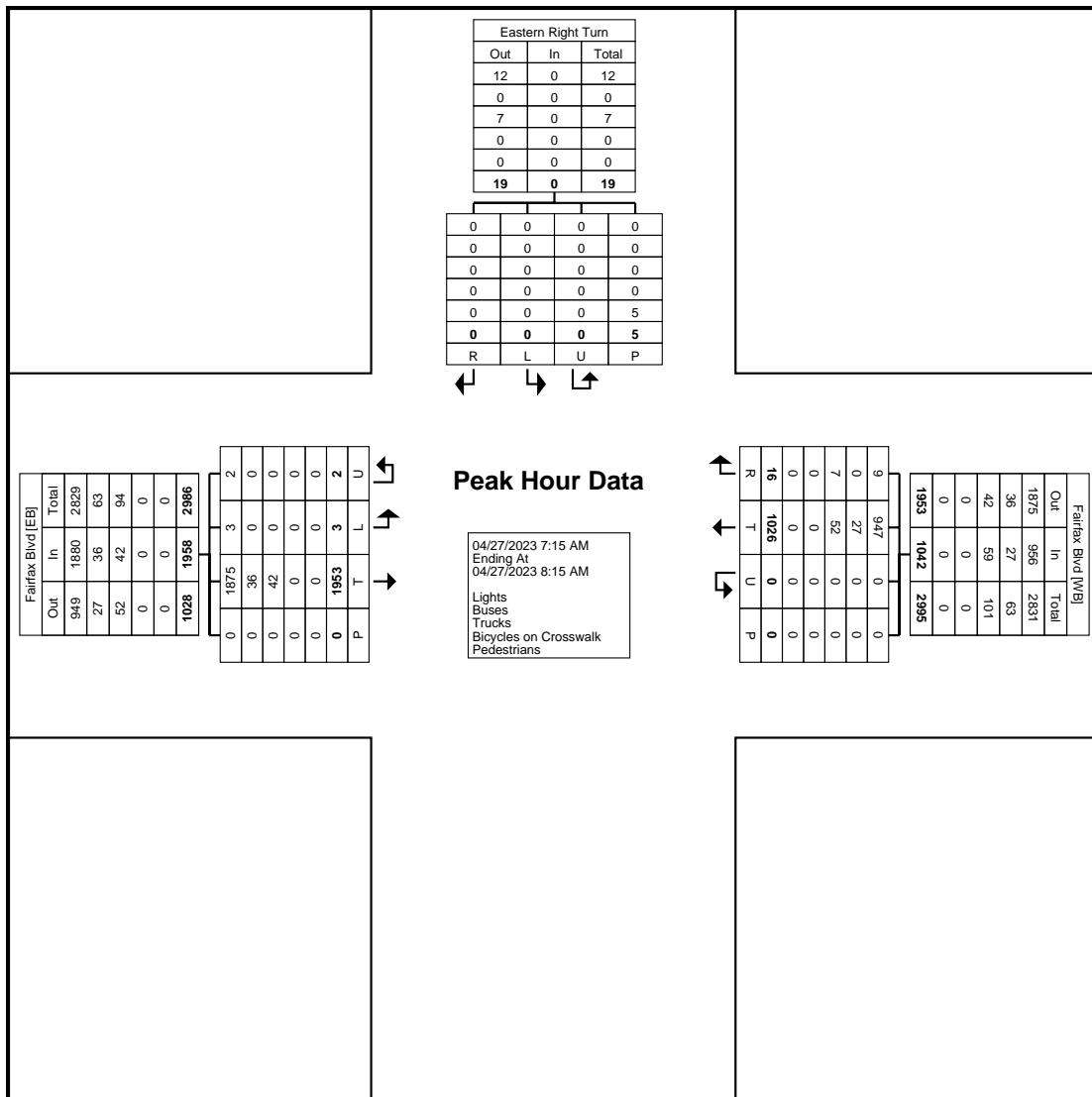
### Turning Movement Peak Hour Data (7:15 AM)

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Eastern Right Turn In/Right Turn Out Driveway Southbound					Int. Total		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	
7:15 AM	0	411	0	0	411	184	5	0	0	0	189	0	0	0	0	1	0	600
7:30 AM	1	538	1	0	540	245	4	0	0	0	249	0	0	0	0	0	0	789
7:45 AM	2	537	1	0	540	263	3	0	0	0	266	0	0	0	0	1	0	806
8:00 AM	0	467	0	0	467	334	4	0	0	0	338	0	0	0	0	3	0	805
Total	3	1953	2	0	1958	1026	16	0	0	0	1042	0	0	0	0	5	0	3000
Approach %	0.2	99.7	0.1	-	-	98.5	1.5	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.1	65.1	0.1	-	65.3	34.2	0.5	0.0	0.0	-	34.7	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.375	0.908	0.500	-	0.906	0.768	0.800	0.000	0.000	-	0.771	0.000	0.000	0.000	0.000	-	0.000	0.931
Lights	3	1875	2	-	1880	947	9	0	0	-	956	0	0	0	0	-	0	2836
% Lights	100.0	96.0	100.0	-	96.0	92.3	56.3	-	-	-	91.7	-	-	-	-	-	-	94.5
Buses	0	36	0	-	36	27	0	0	0	-	27	0	0	0	0	-	0	63
% Buses	0.0	1.8	0.0	-	1.8	2.6	0.0	-	-	-	2.6	-	-	-	-	-	-	2.1
Trucks	0	42	0	-	42	52	7	0	0	-	59	0	0	0	0	-	0	101
% Trucks	0.0	2.2	0.0	-	2.1	5.1	43.8	-	-	-	5.7	-	-	-	-	-	-	3.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fairfax, VA  
Fairfax Blvd & Eastern Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.862064, -  
77.294294

www.TSTData.com  
184 Baker Rd  
  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Eastern Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 4



Turning Movement Peak Hour Data Plot (7:15 AM)

Fairfax, VA  
 Fairfax Blvd & Eastern Rt In/Rt  
 Out Driveway  
 Thursday, April 27, 2023  
 Location: 38.862064, -77.294294

www.TSTData.com  
 184 Baker Rd  
 Coatesville, Pennsylvania, United States 19320  
 610-466-1469  
 Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard & Eastern Right Turn In/Right Turn Out Driveway  
 Site Code:  
 Start Date: 04/27/2023  
 Page No: 5

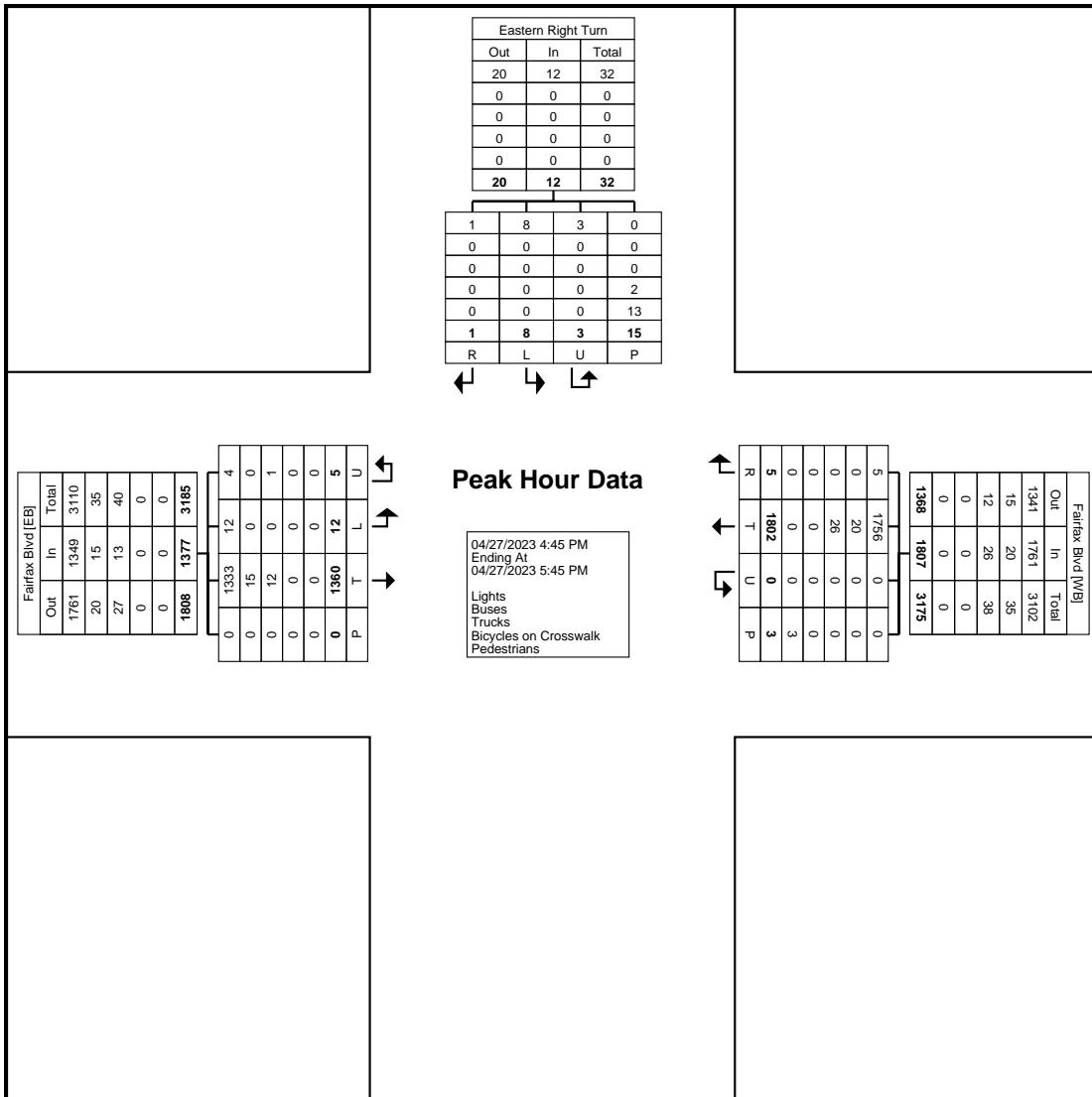
### Turning Movement Peak Hour Data (4:45 PM)

Start Time	Fairfax Blvd Eastbound					Fairfax Blvd Westbound					Eastern Right Turn In/Right Turn Out Driveway Southbound					Int. Total		
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	
4:45 PM	4	307	2	0	313	439	1	0	0	0	440	1	1	0	0	3	2	755
5:00 PM	2	332	1	0	335	462	1	0	0	0	463	2	0	0	1	1	3	801
5:15 PM	1	368	0	0	369	440	1	0	0	0	441	1	0	0	1	5	2	812
5:30 PM	5	353	2	0	360	461	2	0	0	3	463	4	0	0	1	6	5	828
Total	12	1360	5	0	1377	1802	5	0	0	3	1807	8	1	0	3	15	12	3196
Approach %	0.9	98.8	0.4	-	-	99.7	0.3	0.0	0.0	-	-	66.7	8.3	0.0	25.0	-	-	-
Total %	0.4	42.6	0.2	-	43.1	56.4	0.2	0.0	0.0	-	56.5	0.3	0.0	0.0	0.1	-	0.4	-
PHF	0.600	0.924	0.625	-	0.933	0.975	0.625	0.000	0.000	-	0.976	0.500	0.250	0.000	0.750	-	0.600	0.965
Lights	12	1333	4	-	1349	1756	5	0	0	-	1761	8	1	0	3	-	12	3122
% Lights	100.0	98.0	80.0	-	98.0	97.4	100.0	-	-	-	97.5	100.0	100.0	-	100.0	-	100.0	97.7
Buses	0	15	0	-	15	20	0	0	0	-	20	0	0	0	0	-	0	35
% Buses	0.0	1.1	0.0	-	1.1	1.1	0.0	-	-	-	1.1	0.0	0.0	-	0.0	-	0.0	1.1
Trucks	0	12	1	-	13	26	0	0	0	-	26	0	0	0	0	-	0	39
% Trucks	0.0	0.9	20.0	-	0.9	1.4	0.0	-	-	-	1.4	0.0	0.0	-	0.0	-	0.0	1.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	13.3	-	-
Pedestrians	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	13	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	86.7	-	-

Fairfax, VA  
Fairfax Blvd & Eastern Rt In/Rt  
Out Driveway  
Thursday, April 27, 2023  
Location: 38.862064, -  
77.294294

www.TSTData.com  
184 Baker Rd  
  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard  
& Eastern Right Turn In/Right  
Turn Out Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 6



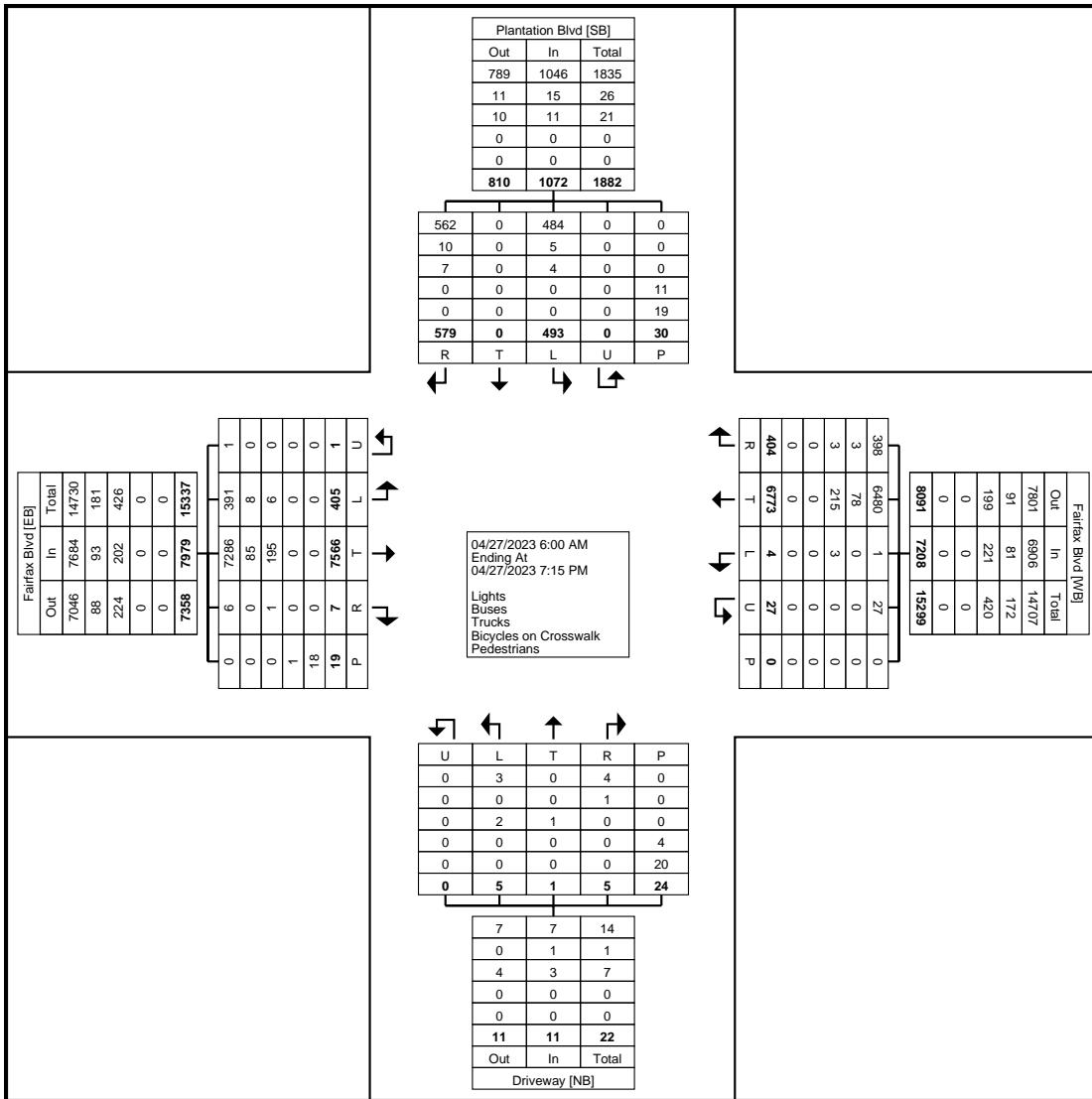
Turning Movement Peak Hour Data Plot (4:45 PM)



Fairfax, VA  
Fairfax Blvd & Plantation Blvd  
Thursday, April 27, 2023  
Location: 38.862151, -77.293562

Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Fairfax Boulevard & Plantation Boulevard  
Site Code:  
Start Date: 04/27/2023  
Page No: 2



Turning Movement Data Plot



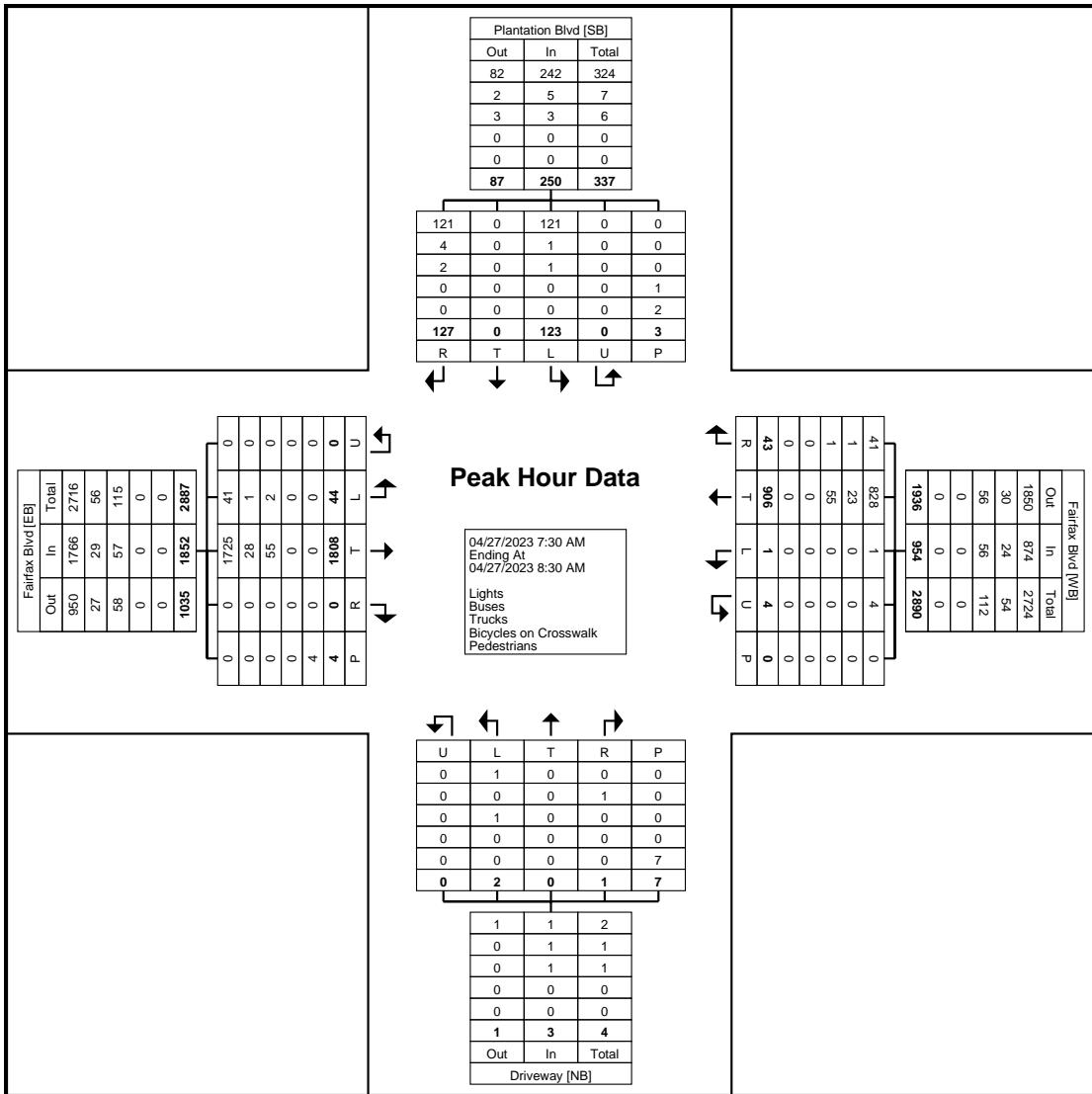
www.TSTDData.com  
184 Baker Rd

Fairfax, VA  
Fairfax Blvd & Plantation Blvd  
Thursday, April 27, 2023  
Location: 38.862151, -  
77.293562

Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

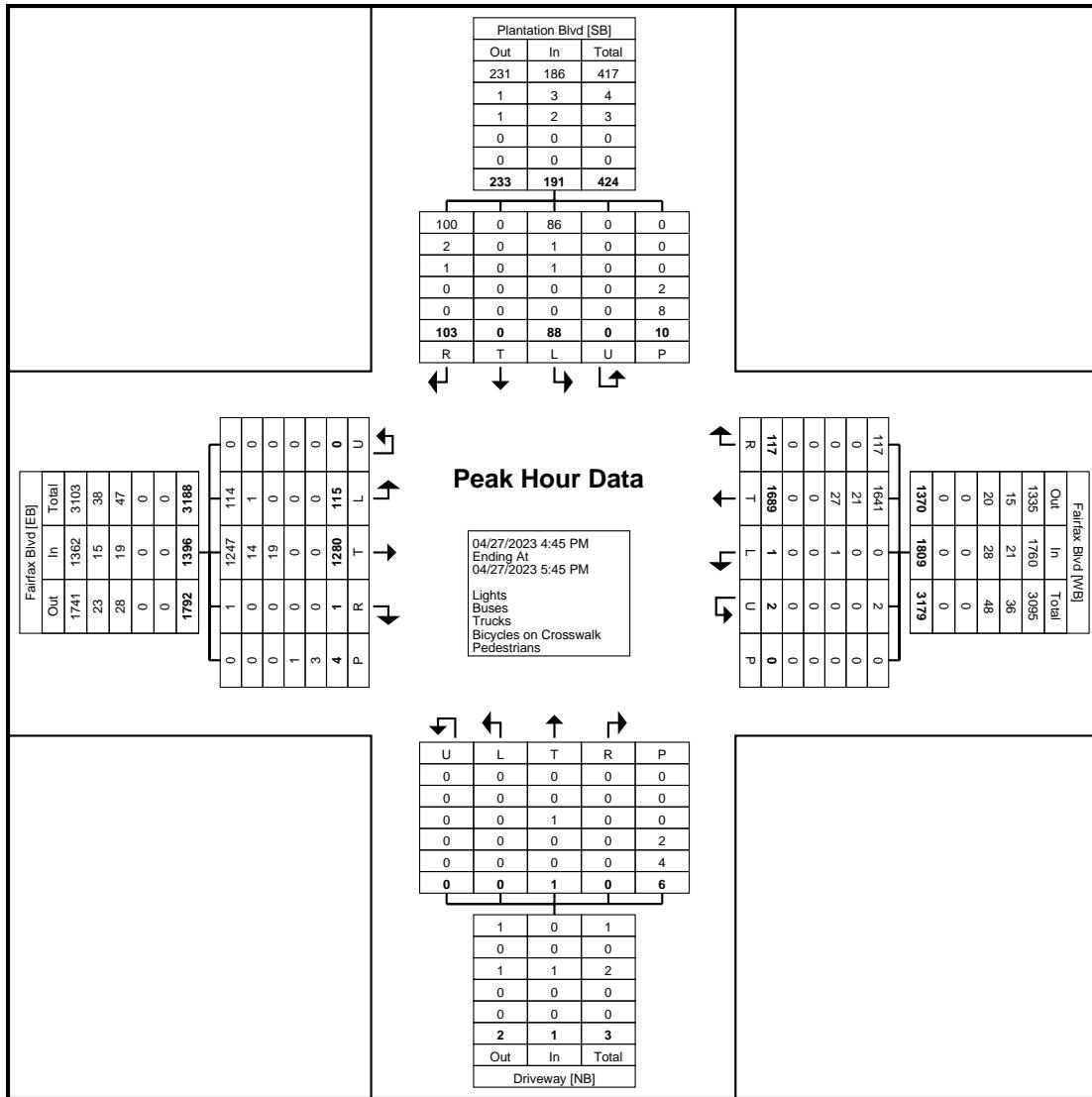
Count Name: Fairfax Boulevard  
& Plantation Boulevard  
Site Code:  
Start Date: 04/27/2023  
Page No: 3

## Turning Movement Peak Hour Data (7:30 AM)



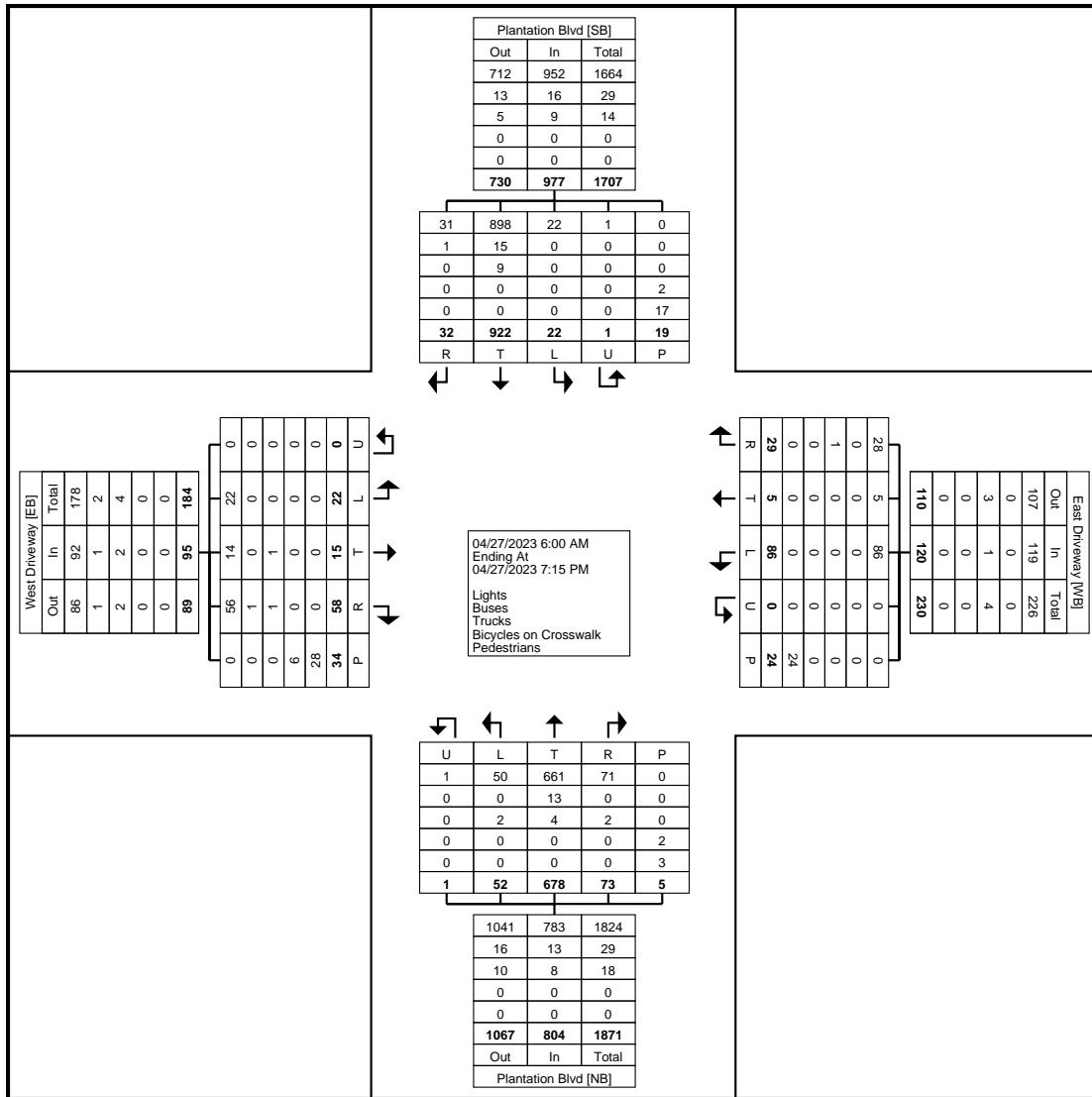
Turning Movement Peak Hour Data Plot (7:30 AM)

## Turning Movement Peak Hour Data (4:45 PM)



Turning Movement Peak Hour Data Plot (4:45 PM)





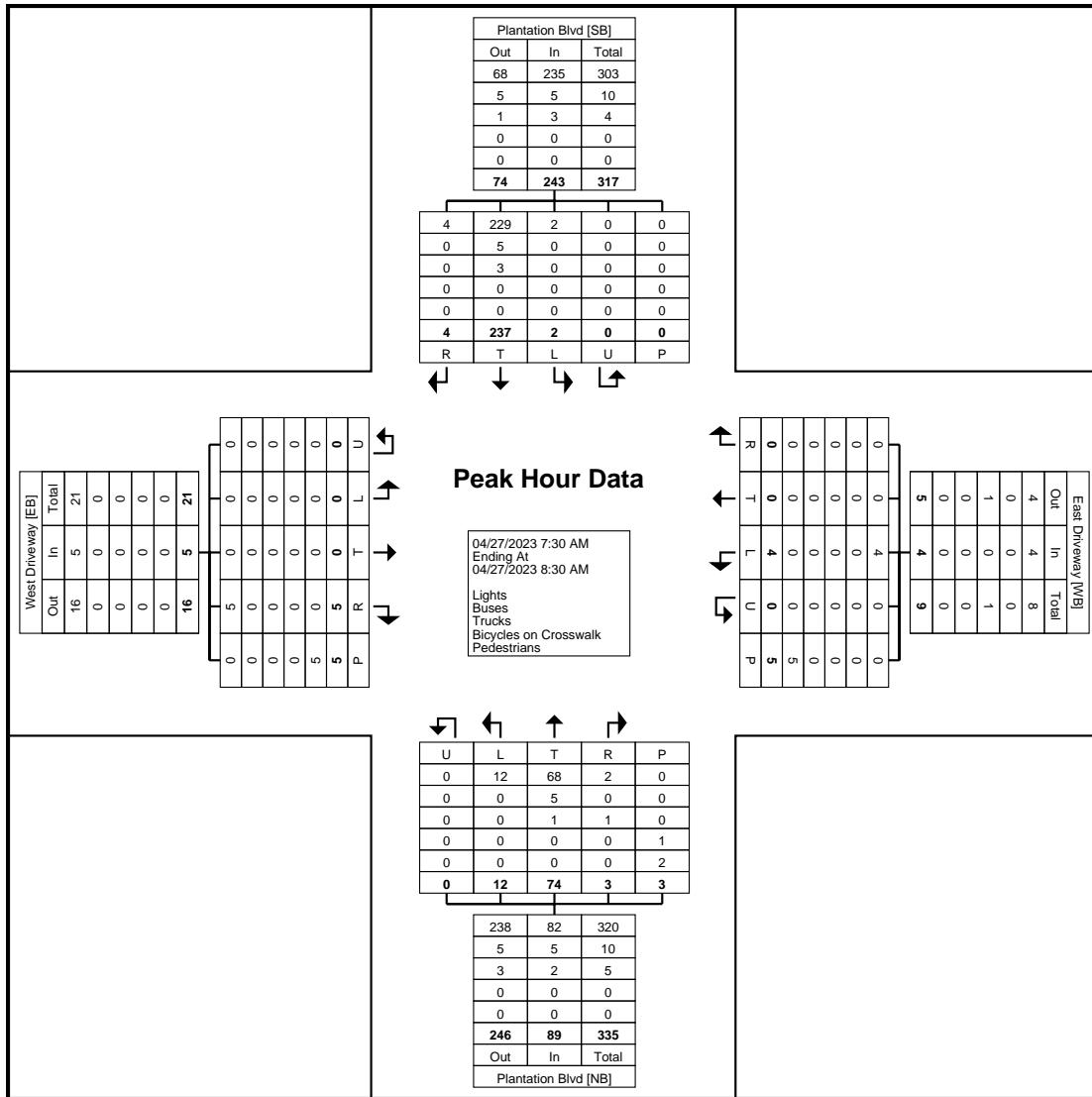
Turning Movement Data Plot



Fairfax, VA  
Plantation Parkway & Northern  
Driveway  
Thursday, April 27, 2023  
Location: 38.862873, -  
77.293909

www.TSTData.com  
184 Baker Rd  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Plantation  
Parkway & Northern Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)

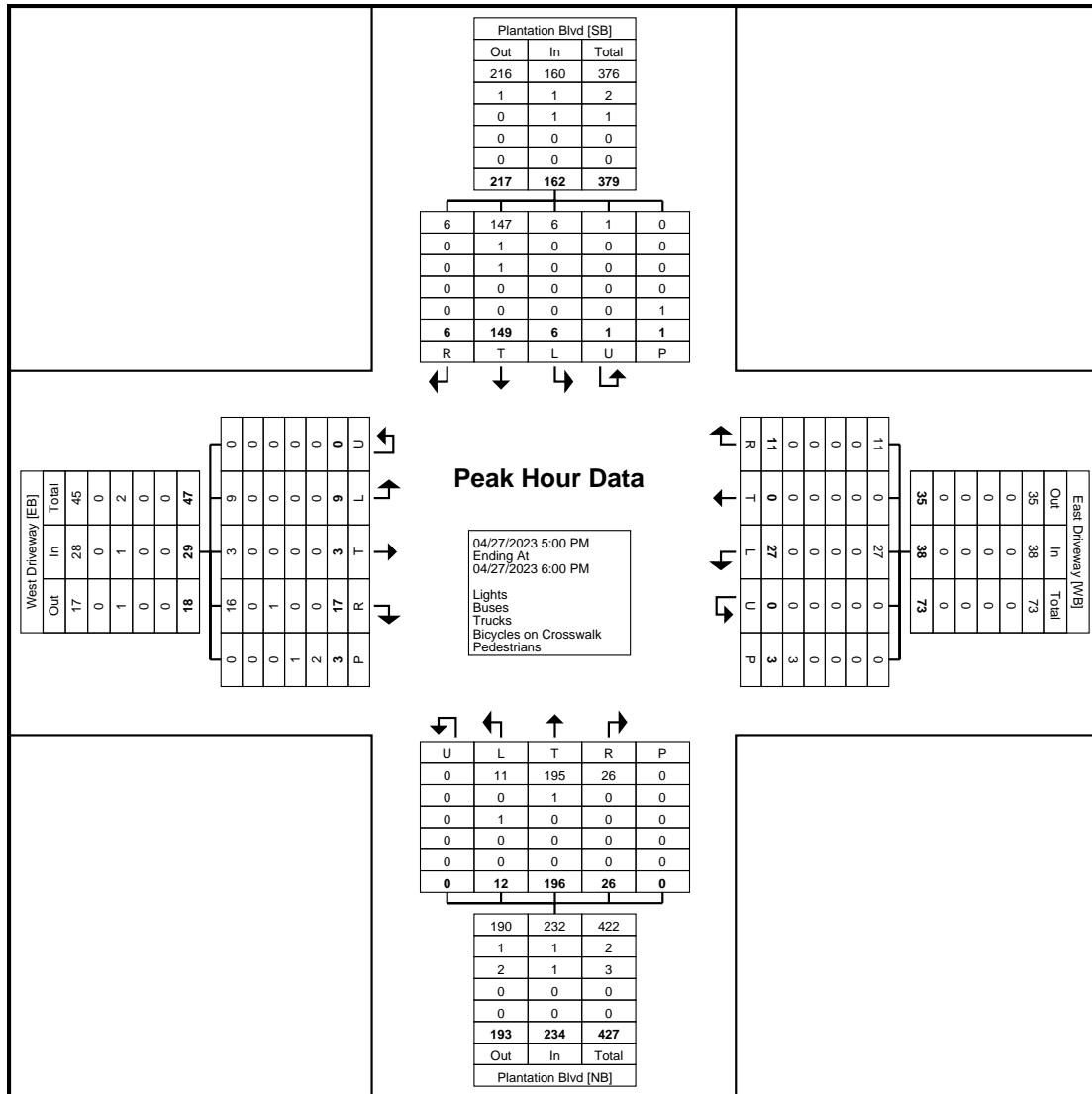


Fairfax, VA  
Plantation Parkway & Northern  
Driveway  
Thursday, April 27, 2023  
Location: 38.862873, -  
77.293909

[www.ISTData.com](http://www.ISTData.com)  
184 Baker Rd  
Coatesville, Pennsylvania, United States 19320  
610-466-1469  
Serving Transportation Professionals Since 1995

Count Name: Plantation  
Parkway & Northern Driveway  
Site Code:  
Start Date: 04/27/2023  
Page No: 5

## Turning Movement Peak Hour Data (5:00 PM)



Turning Movement Peak Hour Data Plot (5:00 PM)

City of Fairfax Signal Coordination Timing - East Fairfax Blvd

Intersection # **53**  
Name: **Fairfax Blvd. & Blvd Marketplace**  
Group: East FFX Primary: Fairfax Blvd.

Type: Fully Actuated  
Ring: Standard  
Overlaps: None

Peds: SB(4),EB(2),WB(6)

Coordination Timing							
	AM	MD	PM	Offpeak	Night	WE	
MaxTime Pattern	12	22	32	100	100	42	
Splits\Cycle	<b>190</b>	<b>150</b>	<b>220</b>	Free	Free	<b>150</b>	
1	25	28	30		30		
2	119	73	138		75		
3	0	0	0		0		
4	46	49	52		45		
5	28	31	33		30		
6	116	70	135		75		
7	0	0	0		0		
8	46	49	52		45		
<b>Offset (BOG)</b>	156	37	161		126		
Coord Phases	2&6	2&6	2&6		2&6		
Rev. Phases							
Alt Seq							

**Phase Timing**

Phase	Direction	Min Green	Gap	Walk	FDW	Max 1	Max 2	Amber	All Red	Notes
1	WBLT	5.0	3.0			30	15	3.5	2.1	
2	EB	5.0	4.0	7	14	55	70	4.1	1.0	
3	n/a									
4	SB	5.0	3.0	7	21	25	35	3.5	3.3	
5	EBLT	5.0	3.0			30	15	3.5	2.4	
6	WB	5.0	4.0	7	14	55	70	4.1	1.0	
7	n/a									
8	NB	5.0	3.0			25	35	3.5	3.3	

AM: 7-10 M-F

MD: 10-14:45 M-F

PM: 14:45-19 M-F

WE: 10-20 Sat, 12-20 Sun

Free all other times.

Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

Intersection # **54**  
Group: East FFX

Name: **Fairfax Blvd. & Fair Woods (ex-Plantation)/ FS33**  
Primary: Fairfax Blvd.

Type: Semi-Actuated  
Ring: Standard  
Overlaps: None

Peds: SB(8),WB(2)

**Coordination Timing**

	AM	MD	PM	Offpeak	Night	WE		
MaxTime Pattern	12	22	32	100	100	42		
Splits/Cycle	<b>190</b>	<b>150</b>	<b>220</b>	Free	Free	<b>150</b>		
1	25	35	30			26		
2	125	77	152			75		
3	0	0	0			0		
4	40	38	38			49		
5	21	20	25			26		
6	129	92	157			75		
7	0	0	0			0		
8	40	38	38			49		
<b>Offset (BOG)</b>	160	47	111			108		
Coord Phases	2&6	2&6	2&6			2&6		
Rev. Phases								
Alt Seq								

**Phase Timing**

Phase	Direction	Min Green	Gap	Walk	FDW	Max 1	Max 2	Amber	All Red	Notes
1	EBLT	5.0	3.0			30	15	3.5	3.0	
2	WB	5.0	4.0	8	33	55	70	4.1	1.5	Max
3	n/a									
4	NB FS	10.0	3.0			35	35	3.5	3.6	
5	WBLT	5.0	3.0			30	15	3.5	2.0	
6	EB	5.0	4.0			55	70	4.1	1.5	Max
7	n/a									
8	SB	5.0	3.0	7	23	35	35	3.5	3.6	

AM: 7-10 M-F

MD: 10-14:45 M-F

PM: 14:45-19 M-F

WE: 10-20 Sat, 12-20 Sun

Free all other times.

Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

Type:	Ring:		Overlaps:		Peds:			
Fully Actuated	Standard		None		SB(4),EB(2),WB(6)			
Phase Timing	1	2	3	4	5	6	7	8
Direction	WBLT	EB	n/a	SB	EBLT	WB	n/a	NB
Enable	x	x	x	x	x	x	x	x
Walk	0	7	0	7	0	7	0	0
FDW	0	14	0	21	0	14	0	0
Min Green	5.0	5.0	0.0	5.0	5.0	5.0	0.0	5.0
Gap	3.0	4.0	0.0	3.0	3.0	4.0	0.0	3.0
Max 1	30	55	0	25	30	55	0	25
Max 2	15	70	0	35	15	70	0	35
Amber	3.5	4.1	0.0	3.5	3.5	4.1	0.0	3.5
All Red	2.1	1.0	0.0	3.3	2.4	1.0	0.0	3.3
Notes	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AM: 7-10 M-F

MD: 10-14:45 M-F

PM: 14:45-19 M-F

WE: 10-20 Sat, 12-20 Sun

Free all other times.

Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

Type:	Ring:		Overlaps:		Peds:			
Semi-Actuated	Standard		None		SB(8) WB(2)			
Phase Timing	1	2	3	4	5	6	7	8
Direction	EBLT	WB	n/a	NB FS	WBLT	EB	n/a	SB
Enable	x	x	x	x	x	x	x	x
Walk	0	8	0	0	0	0	0	7
FDW	0	33	0	0	0	0	0	23
Min Green	5.0	5.0	0.0	10.0	5.0	5.0	0.0	5.0
Gap	3.0	4.0	0.0	3.0	3.0	4.0	0.0	3.0
Max 1	30	55	0	35	30	55	0	35
Max 2	15	70	0	35	15	70	0	35
Amber	3.5	4.1	0.0	3.5	3.5	4.1	0.0	3.5
All Red	3.0	1.5	0.0	3.6	2.0	1.5	0.0	3.6
Notes	0	Max	0.0	0.0	0.0	Max	0.0	0.0
AM:	7-10 M-F							
MD:	10-14:45 M-F							
PM:	14:45-19 M-F							
WE:	10-20 Sat, 12-20 Sun							

Free all other times.

Holidays run MD plan 8 AM to 8 PM, Free before 8 AM and after 8 PM

## **Appendix C**

### **Capacity Analysis**

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	4	8	1886	28	1	7	1115	0	1	0	2	1
Future Volume (vph)	4	8	1886	28	1	7	1115	0	1	0	2	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			4%				-4%			-4%		
Storage Length (ft)		250		0		150		0	0		50	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.998									0.850	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	1508	4832	0	0	1841	4945	0	0	921	1647	0
Flt Permitted		0.336				0.465				0.757		
Satd. Flow (perm)	0	533	4832	0	0	901	4945	0	0	734	1647	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)		2									44	
Link Speed (mph)		35				35			25			
Link Distance (ft)		641				495			200			
Travel Time (s)		12.5				9.6			5.5			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	25%	5%	4%	0%	0%	7%	0%	100%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	2150	0	0	9	1253	0	0	1	2	0
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5				1				8		8	4
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.9	10.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	28.0	28.0	119.0		25.0	25.0	116.0		46.0	46.0	46.0	46.0
Total Split (%)	14.7%	14.7%	62.6%		13.2%	13.2%	61.1%		24.2%	24.2%	24.2%	24.2%
Maximum Green (s)	22.1	22.1	113.9		19.4	19.4	110.9		39.2	39.2	39.2	39.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)		3.9	3.1			3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)			7.0				7.0				7.0	
Flash Don't Walk (s)			14.0				14.0				21.0	
Pedestrian Calls (#/hr)			5				5				5	
Act Effct Green (s)		17.8	170.4			13.0	166.9			12.8	12.8	
Actuated g/C Ratio		0.09	0.90			0.07	0.88			0.07	0.07	
v/c Ratio		0.26	0.50			0.15	0.29			0.02	0.01	
Control Delay (s/veh)		87.9	6.3			77.6	5.5			75.0	0.0	
Queue Delay		0.0	0.0			0.0	0.0			0.0	0.0	



Lane Group	SBT	SBR
Lane Configurations	4	4
Traffic Volume (vph)	0	6
Future Volume (vph)	0	6
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1353
Flt Permitted	0.757	
Satd. Flow (perm)	1410	1353
Right Turn on Red	Yes	
Satd. Flow (RTOR)	44	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.89	0.89
Heavy Vehicles (%)	0%	17%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1	7
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	46.0	46.0
Total Split (%)	24.2%	24.2%
Maximum Green (s)	39.2	39.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	12.7	12.7
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.01	0.05
Control Delay (s/veh)	75.0	0.8
Queue Delay	0.0	0.0

3486 22-02730

Existing - AM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	87.9	6.3			77.6	5.5			75.0	0.0		
LOS	F	A			E	A			E	A		
Approach Delay (s/veh)		6.8				6.0			25.0			
Approach LOS		A				A			C			
Queue Length 50th (ft)	16	0			9	0			1	0		
Queue Length 95th (ft)	40	584			m32	246			8	0		
Internal Link Dist (ft)		561				415			120			
Turn Bay Length (ft)	250				150				50			
Base Capacity (vph)	71	4333			101	4345			161	395		
Starvation Cap Reductn	0	0			0	0			0	0		
Spillback Cap Reductn	0	78			0	0			0	0		
Storage Cap Reductn	0	0			0	0			0	0		
Reduced v/c Ratio	0.18	0.51			0.09	0.29			0.01	0.01		

**Intersection Summary**

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 153 (81%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay (s/veh): 6.5

Intersection LOS: A

Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 10: Gatewood Plaza Driveway &amp; Fairfax Boulevard





Lane Group	SBT	SBR
Total Delay (s/veh)	75.0	0.8
LOS	E	A
Approach Delay (s/veh)	10.1	
Approach LOS	B	
Queue Length 50th (ft)	1	0
Queue Length 95th (ft)	8	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	309	331
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.00	0.02
<b>Intersection Summary</b>		

3486 22-02730

Existing - AM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	8	1886	28	1	7	1115	0	1	0	2	1
Future Volume (veh/h)	4	8	1886	28	1	7	1115	0	1	0	2	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1435	1732	1746		2057	1952	2057	556	2057	2057	1806	
Adj Flow Rate, veh/h	9	2119	31		8	1253	0	1	0	2	1	
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	25	5	4		0	7	0	100	0	0	0	0
Cap, veh/h	28	4310	63		38	4772	0	64	0	43	61	
Arrive On Green	0.02	0.90	0.89		0.04	1.00	0.00	0.02	0.00	0.02	0.02	0.02
Sat Flow, veh/h	1367	4801	70		1959	5505	0	1056	0	1743	933	
Grp Volume(v), veh/h	9	1390	760		8	1253	0	1	0	2	1	
Grp Sat Flow(s), veh/h/ln	1367	1576	1719		1959	1777	0	1056	0	1743	933	
Q Serve(g_s), s	1.2	15.3	15.4		0.8	0.0	0.0	0.1	0.0	0.2	0.1	
Cycle Q Clear(g_c), s	1.2	15.3	15.4		0.8	0.0	0.0	1.6	0.0	0.2	1.6	
Prop In Lane	1.00		0.04		1.00		0.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	28	2829	1543		38	4772	0	64	0	43	61	
V/C Ratio(X)	0.32	0.49	0.49		0.21	0.26	0.00	0.02	0.00	0.05	0.02	
Avail Cap(c_a), veh/h	173	2829	1543		221	4772	0	366	0	383	327	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	91.8	1.8	1.8		89.9	0.0	0.0	91.9	0.0	90.5	91.9	
Incr Delay (d2), s/veh	6.4	0.6	1.1		2.6	0.1	0.0	0.1	0.0	0.4	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	
%ile BackOfQ(95%),veh/ln	0.9	5.6	6.6		0.7	0.1	0.0	0.1	0.0	0.2	0.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.2	2.4	2.9		92.5	0.1	0.0	92.0	0.0	90.9	92.0	
LnGrp LOS	F	A	A		F	A		F		F	F	
Approach Vol, veh/h			2159				1261			3		
Approach Delay, s/veh			3.0				0.7			91.3		
Approach LOS			A				A			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	173.7		9.0	7.8	173.2		9.0				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	19.4	113.9		39.2	22.1	110.9		39.2				
Max Q Clear Time (g_c+l1), s	2.8	17.4		3.6	3.2	2.0		3.6				
Green Ext Time (p_c), s	0.0	22.1		0.0	0.0	8.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			2.4									
HCM 6th LOS			A									
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	6
Future Volume (veh/h)	0	6
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1554
Adj Flow Rate, veh/h	0	7
Peak Hour Factor	0.89	0.89
Percent Heavy Veh, %	0	17
Cap, veh/h	0	33
Arrive On Green	0.00	0.02
Sat Flow, veh/h	0	1317
Grp Volume(v), veh/h	0	7
Grp Sat Flow(s), veh/h/ln	0	1317
Q Serve(g_s), s	0.0	1.0
Cycle Q Clear(g_c), s	0.0	1.0
Prop In Lane	1.00	
Lane Grp Cap(c), veh/h	0	33
V/C Ratio(X)	0.00	0.21
Avail Cap(c_a), veh/h	0	289
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	90.8
Incr Delay (d2), s/veh	0.0	3.2
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	0.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	94.1
LnGrp LOS		F
Approach Vol, veh/h	8	
Approach Delay, s/veh	93.8	
Approach LOS		F
Timer - Assigned Phs		

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	9	23	1380	2	14	4	1797	3	35	1	23	10
Future Volume (vph)	9	23	1380	2	14	4	1797	3	35	1	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			4%				-4%			-4%		
Storage Length (ft)		250		0		150		0	0		50	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>												0.850
Flt Protected		0.950				0.950					0.954	
Satd. Flow (prot)	0	1769	4984	0	0	1841	5137	0	0	1849	1647	0
Flt Permitted		0.089				0.221					0.725	
Satd. Flow (perm)	0	166	4984	0	0	428	5137	0	0	1405	1647	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)												38
Link Speed (mph)		35				35				25		
Link Distance (ft)		641				495				200		
Travel Time (s)		12.5				9.6				5.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	3%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	32	1410	0	0	18	1837	0	0	37	23	0
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5				1				8		8	4
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.9	10.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	33.0	33.0	138.0		30.0	30.0	135.0		52.0	52.0	52.0	52.0
Total Split (%)	15.0%	15.0%	62.7%		13.6%	13.6%	61.4%		23.6%	23.6%	23.6%	23.6%
Maximum Green (s)	27.1	27.1	132.9		24.4	24.4	129.9		45.2	45.2	45.2	45.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)		3.9	3.1			3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)		7.0				7.0						7.0
Flash Don't Walk (s)		14.0				14.0						21.0
Pedestrian Calls (#/hr)		5				5						5
Act Effct Green (s)	44.9	180.4			22.1	150.4			16.0	16.0		
Actuated g/C Ratio	0.20	0.82			0.10	0.68			0.07	0.07		
v/c Ratio	0.97	0.35			0.42	0.52			0.36	0.15		
Control Delay (s/veh)	225.1	8.5			100.8	18.7			104.1	9.0		
Queue Delay	0.0	0.0			0.0	0.2			0.0	0.0		



Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	8
Future Volume (vph)	0	8
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1583
Flt Permitted	0.733	
Satd. Flow (perm)	1365	1583
Right Turn on Red	Yes	
Satd. Flow (RTOR)	38	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.98	0.98
Heavy Vehicles (%)	0%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	10	8
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases	4	
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	52.0	52.0
Total Split (%)	23.6%	23.6%
Maximum Green (s)	45.2	45.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	15.8	15.8
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.10	0.05
Control Delay (s/veh)	92.7	0.8
Queue Delay	0.0	0.0



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	225.1	8.5			100.8	18.9			104.1	9.0		
LOS	F	A			F	B			F	A		
Approach Delay (s/veh)		13.3				19.7			67.7			
Approach LOS		B				B			E			
Queue Length 50th (ft)	46	201			25	469			53	0		
Queue Length 95th (ft)	#125	391			m48	448			92	15		
Internal Link Dist (ft)		561				415			120			
Turn Bay Length (ft)	250				150				50			
Base Capacity (vph)	33	4086			56	3559			304	386		
Starvation Cap Reductn	0	0			0	712			0	0		
Spillback Cap Reductn	0	0			0	0			0	0		
Storage Cap Reductn	0	0			0	0			0	0		
Reduced v/c Ratio	0.97	0.35			0.32	0.65			0.12	0.06		

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 153 (70%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 18.0

Intersection LOS: B

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

# 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.

Splits and Phases: 10: Gatewood Plaza Driveway &amp; Fairfax Boulevard





Lane Group	SBT	SBR
Total Delay (s/veh)	92.7	0.8
LOS	F	A
Approach Delay (s/veh)	51.8	
Approach LOS	D	
Queue Length 50th (ft)	14	0
Queue Length 95th (ft)	36	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	295	372
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.03	0.02
<b>Intersection Summary</b>		

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	9	23	1380	2	14	4	1797	3	35	1	23	10
Future Volume (veh/h)	9	23	1380	2	14	4	1797	3	35	1	23	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln	1806	1776	1806		2057	2012	2057	2057	2057	2057	2057	1806
Adj Flow Rate, veh/h	23	1408	2		4	1834	3	36	1	23	10	
Peak Hour Factor	0.98	0.98	0.98		0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0		0	3	0	0	0	0	0	0
Cap, veh/h	45	3596	5		27	3996	7	32	1	378	33	
Arrive On Green	0.03	0.72	0.71		0.03	1.00	1.00	0.22	0.22	0.22	0.22	
Sat Flow, veh/h	1720	5000	7		1959	5664	9	0	2	1743	0	
Grp Volume(v), veh/h	23	910	500		4	1186	651	37	0	23	10	
Grp Sat Flow(s), veh/h/ln	1720	1616	1775		1959	1831	2011	3	0	1743	0	
Q Serve(g_s), s	2.9	24.2	24.2		0.4	0.0	0.0	0.0	0.0	2.3	0.0	
Cycle Q Clear(g_c), s	2.9	24.2	24.2		0.4	0.0	0.0	47.7	0.0	2.3	47.7	
Prop In Lane	1.00		0.00		1.00		0.00	0.97		1.00	1.00	
Lane Grp Cap(c), veh/h	45	2325	1276		27	2584	1419	33	0	378	33	
V/C Ratio(X)	0.51	0.39	0.39		0.15	0.46	0.46	1.12	0.00	0.06	0.30	
Avail Cap(c_a), veh/h	227	2325	1276		235	2584	1419	33	0	378	33	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	105.7	12.1	12.1		105.6	0.0	0.0	109.2	0.0	68.4	110.0	
Incr Delay (d2), s/veh	8.6	0.5	0.9		2.4	0.6	1.1	196.8	0.0	0.1	5.1	
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	
%ile BackOfQ(95%),veh/ln	2.6	14.0	15.3		0.4	0.4	0.8	6.7	0.0	1.9	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	114.3	12.6	13.0		108.0	0.6	1.1	306.1	0.0	68.4	115.1	
LnGrp LOS	F	B	B		F	A	A	F		E	F	
Approach Vol, veh/h		1433				1841				60		
Approach Delay, s/veh		14.3				1.0				215.0		
Approach LOS		B				A				F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	161.3		52.0	9.7	158.3		52.0				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	24.4	132.9		45.2	27.1	129.9		45.2				
Max Q Clear Time (g_c+l1), s	2.4	26.2		49.7	4.9	2.0		49.7				
Green Ext Time (p_c), s	0.0	9.3		0.0	0.0	15.4		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh		11.0										
HCM 6th LOS		B										
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	8
Future Volume (veh/h)	0	8
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1806
Adj Flow Rate, veh/h	0	8
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	0	332
Arrive On Green	0.00	0.22
Sat Flow, veh/h	0	1530
Grp Volume(v), veh/h	0	8
Grp Sat Flow(s), veh/h/ln	0	1530
Q Serve(g_s), s	0.0	0.9
Cycle Q Clear(g_c), s	0.0	0.9
Prop In Lane	1.00	
Lane Grp Cap(c), veh/h	0	332
V/C Ratio(X)	0.00	0.02
Avail Cap(c_a), veh/h	0	332
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	67.8
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	0.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	67.9
LnGrp LOS		E
Approach Vol, veh/h	18	
Approach Delay, s/veh	94.1	
Approach LOS		F
Timer - Assigned Phs		

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	4	8	1998		29	1	7	1182	0	1	0	2
Future Volume (vph)	4	8	1998		29	1	7	1182	0	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			4%				-4%			-4%		
Storage Length (ft)		250			0		150		0	0		50
Storage Lanes		1			0		1		0	0		1
Taper Length (ft)		75					50			25		25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.998										0.850
Flt Protected		0.950					0.950					0.950
Satd. Flow (prot)	0	1508	4832		0	0	1841	4945	0	0	921	1647
Flt Permitted		0.336					0.465				0.757	
Satd. Flow (perm)	0	533	4832		0	0	901	4945	0	0	734	1647
Right Turn on Red				Yes					Yes			Yes
Satd. Flow (RTOR)		2										44
Link Speed (mph)		35					35				25	
Link Distance (ft)		641					495				200	
Travel Time (s)		12.5					9.6				5.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	25%	5%	4%	0%	0%	7%	0%	100%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	13	2278		0	0	9	1328	0	0	1	2
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5				1				8		8	4
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.9	10.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	28.0	28.0	119.0		25.0	25.0	116.0		46.0	46.0	46.0	46.0
Total Split (%)	14.7%	14.7%	62.6%		13.2%	13.2%	61.1%		24.2%	24.2%	24.2%	24.2%
Maximum Green (s)	22.1	22.1	113.9		19.4	19.4	110.9		39.2	39.2	39.2	39.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)		3.9	3.1			3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)		7.0					7.0				7.0	
Flash Don't Walk (s)		14.0					14.0				21.0	
Pedestrian Calls (#/hr)		5					5				5	
Act Effct Green (s)	17.8	170.4			13.0	166.9			12.8	12.8		
Actuated g/C Ratio	0.09	0.90			0.07	0.88			0.07	0.07		
v/c Ratio	0.26	0.53			0.15	0.31			0.02	0.01		
Control Delay (s/veh)	87.9	6.7			79.1	5.3			75.0	0.0		
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		



Lane Group	SBT	SBR
Lane Configurations	↔	↑
Traffic Volume (vph)	0	6
Future Volume (vph)	0	6
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1353
Flt Permitted	0.757	
Satd. Flow (perm)	1410	1353
Right Turn on Red	Yes	
Satd. Flow (RTOR)	44	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.89	0.89
Heavy Vehicles (%)	0%	17%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1	7
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases		4
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	46.0	46.0
Total Split (%)	24.2%	24.2%
Maximum Green (s)	39.2	39.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	12.7	12.7
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.01	0.05
Control Delay (s/veh)	75.0	0.8
Queue Delay	0.0	0.0

3486 22-02730

No Build - AM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	87.9	6.7			79.1	5.3			75.0	0.0		
LOS	F	A			E	A			E	A		
Approach Delay (s/veh)		7.1				5.8			25.0			
Approach LOS		A				A			C			
Queue Length 50th (ft)	16	0			10	0			1	0		
Queue Length 95th (ft)	40	647			m32	223			8	0		
Internal Link Dist (ft)		561				415			120			
Turn Bay Length (ft)	250				150				50			
Base Capacity (vph)	71	4333			101	4345			161	395		
Starvation Cap Reductn	0	0			0	0			0	0		
Spillback Cap Reductn	0	52			0	0			0	0		
Storage Cap Reductn	0	0			0	0			0	0		
Reduced v/c Ratio	0.18	0.53			0.09	0.31			0.01	0.01		

## Intersection Summary

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 153 (81%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

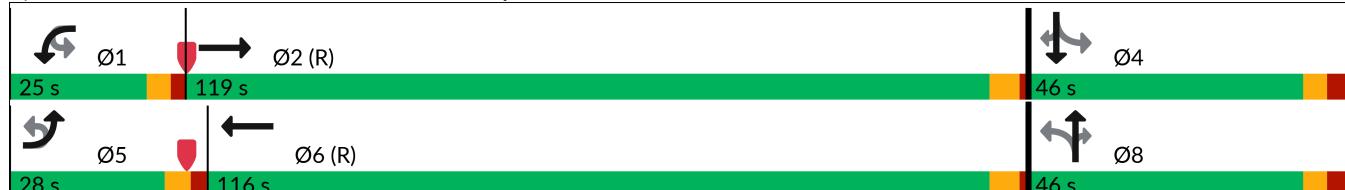
Intersection Signal Delay (s/veh): 6.7      Intersection LOS: A

Intersection Capacity Utilization 58.1%      ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 10: Gatewood Plaza Driveway &amp; Fairfax Boulevard





Lane Group	SBT	SBR
Total Delay (s/veh)	75.0	0.8
LOS	E	A
Approach Delay (s/veh)	10.1	
Approach LOS	B	
Queue Length 50th (ft)	1	0
Queue Length 95th (ft)	8	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	309	331
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.00	0.02
<b>Intersection Summary</b>		

3486 22-02730

No Build - AM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	8	1998	29	1	7	1182	0	1	0	2	1
Future Volume (veh/h)	4	8	1998	29	1	7	1182	0	1	0	2	1
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln	1435	1732	1746		2057	1952	2057	556	2057	2057	1806	
Adj Flow Rate, veh/h	9	2245	33		8	1328	0	1	0	2	1	
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	25	5	4		0	7	0	100	0	0	0	0
Cap, veh/h	28	4309	63		38	4772	0	64	0	43	61	
Arrive On Green	0.02	0.90	0.89		0.04	1.00	0.00	0.02	0.00	0.02	0.02	0.02
Sat Flow, veh/h	1367	4800	70		1959	5505	0	1056	0	1743	933	
Grp Volume(v), veh/h	9	1473	805		8	1328	0	1	0	2	1	
Grp Sat Flow(s), veh/h/ln	1367	1576	1719		1959	1777	0	1056	0	1743	933	
Q Serve(g_s), s	1.2	17.0	17.2		0.8	0.0	0.0	0.1	0.0	0.2	0.1	
Cycle Q Clear(g_c), s	1.2	17.0	17.2		0.8	0.0	0.0	1.6	0.0	0.2	1.6	
Prop In Lane	1.00		0.04		1.00		0.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	28	2829	1543		38	4772	0	64	0	43	61	
V/C Ratio(X)	0.32	0.52	0.52		0.21	0.28	0.00	0.02	0.00	0.05	0.02	
Avail Cap(c_a), veh/h	173	2829	1543		221	4772	0	366	0	383	327	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	91.8	1.9	1.9		89.9	0.0	0.0	91.9	0.0	90.5	91.9	
Incr Delay (d2), s/veh	6.4	0.7	1.3		2.6	0.1	0.0	0.1	0.0	0.4	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	
%ile BackOfQ(95%),veh/ln	0.9	6.2	7.3		0.7	0.1	0.0	0.1	0.0	0.2	0.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	98.2	2.6	3.1		92.5	0.1	0.0	92.0	0.0	90.9	92.0	
LnGrp LOS	F	A	A		F	A		F		F	F	
Approach Vol, veh/h		2287				1336				3		
Approach Delay, s/veh		3.1				0.7				91.3		
Approach LOS		A				A				F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	173.7		9.0	7.8	173.2		9.0				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	19.4	113.9		39.2	22.1	110.9		39.2				
Max Q Clear Time (g_c+l1), s	2.8	19.2		3.6	3.2	2.0		3.6				
Green Ext Time (p_c), s	0.0	25.5		0.0	0.0	9.6		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh		2.5										
HCM 6th LOS		A										
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	6
Future Volume (veh/h)	0	6
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1554
Adj Flow Rate, veh/h	0	7
Peak Hour Factor	0.89	0.89
Percent Heavy Veh, %	0	17
Cap, veh/h	0	33
Arrive On Green	0.00	0.02
Sat Flow, veh/h	0	1317
Grp Volume(v), veh/h	0	7
Grp Sat Flow(s), veh/h/ln	0	1317
Q Serve(g_s), s	0.0	1.0
Cycle Q Clear(g_c), s	0.0	1.0
Prop In Lane		1.00
Lane Grp Cap(c), veh/h	0	33
V/C Ratio(X)	0.00	0.21
Avail Cap(c_a), veh/h	0	289
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	90.8
Incr Delay (d2), s/veh	0.0	3.2
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	0.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	94.1
LnGrp LOS		F
Approach Vol, veh/h	8	
Approach Delay, s/veh	93.8	
Approach LOS		F
Timer - Assigned Phs		

3486 22-02730

No Build - PM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	9	23	1466	2	14	4	1907	3	36	1	23	10
Future Volume (vph)	9	23	1466	2	14	4	1907	3	36	1	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)			4%				-4%			-4%		
Storage Length (ft)		250		0		150		0	0		50	0
Storage Lanes		1		0		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>												0.850
Flt Protected		0.950				0.950					0.954	
Satd. Flow (prot)	0	1769	4984	0	0	1841	5137	0	0	1849	1647	0
Flt Permitted		0.093				0.221					0.725	
Satd. Flow (perm)	0	173	4984	0	0	428	5137	0	0	1405	1647	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)												38
Link Speed (mph)		35				35				25		
Link Distance (ft)		641				495				200		
Travel Time (s)		12.5				9.6				5.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	3%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	32	1498	0	0	18	1949	0	0	38	23	0
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5				1				8		8	4
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.9	10.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	33.0	33.0	138.0		30.0	30.0	135.0		52.0	52.0	52.0	52.0
Total Split (%)	15.0%	15.0%	62.7%		13.6%	13.6%	61.4%		23.6%	23.6%	23.6%	23.6%
Maximum Green (s)	27.1	27.1	132.9		24.4	24.4	129.9		45.2	45.2	45.2	45.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)		3.9	3.1			3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)			7.0				7.0					7.0
Flash Don't Walk (s)			14.0				14.0					21.0
Pedestrian Calls (#/hr)			5				5					5
Act Effct Green (s)	42.9	180.3			22.1	152.3			16.1	16.1		
Actuated g/C Ratio	0.20	0.82			0.10	0.69			0.07	0.07		
v/c Ratio	0.97	0.37			0.42	0.55			0.37	0.15		
Control Delay (s/veh)	225.6	8.8			105.9	16.6			104.5	9.0		
Queue Delay		0.0	0.0		0.0	0.2			0.0	0.0		



Lane Group	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗
Traffic Volume (vph)	0	8
Future Volume (vph)	0	8
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1583
Flt Permitted	0.726	
Satd. Flow (perm)	1352	1583
Right Turn on Red	Yes	
Satd. Flow (RTOR)	38	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.98	0.98
Heavy Vehicles (%)	0%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	10	8
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases	4	
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	52.0	52.0
Total Split (%)	23.6%	23.6%
Maximum Green (s)	45.2	45.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	15.9	15.9
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.10	0.05
Control Delay (s/veh)	92.6	0.6
Queue Delay	0.0	0.0

3486 22-02730

No Build - PM  
10: Gatewood Plaza Driveway & Fairfax Boulevard

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	225.6		8.8		105.9		16.8		104.5		9.0	
LOS	F	A			F	B			F		A	
Approach Delay (s/veh)			13.3				17.6			68.5		
Approach LOS			B				B			E		
Queue Length 50th (ft)	46	220			25	516			54		0	
Queue Length 95th (ft)	#134	424			m50	308			95		15	
Internal Link Dist (ft)		561					415			120		
Turn Bay Length (ft)	250				150					50		
Base Capacity (vph)	33	4084			56	3557			304		386	
Starvation Cap Reductn	0	0			0	655			0		0	
Spillback Cap Reductn	0	0			0	0			0		0	
Storage Cap Reductn	0	0			0	0			0		0	
Reduced v/c Ratio	0.97	0.37			0.32	0.67			0.13		0.06	

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 153 (70%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 16.8

Intersection LOS: B

Intersection Capacity Utilization 55.7%

ICU Level of Service B

Analysis Period (min) 15

# 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.

Splits and Phases: 10: Gatewood Plaza Driveway &amp; Fairfax Boulevard





Lane Group	SBT	SBR
Total Delay (s/veh)	92.6	0.6
LOS	F	A
Approach Delay (s/veh)	51.7	
Approach LOS	D	
Queue Length 50th (ft)	14	0
Queue Length 95th (ft)	37	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	293	372
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.03	0.02
<b>Intersection Summary</b>		

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	9	23	1466	2	14	4	1907	3	36	1	23	10
Future Volume (veh/h)	9	23	1466	2	14	4	1907	3	36	1	23	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln	1806	1776	1806		2057	2012	2057	2057	2057	2057	2057	1806
Adj Flow Rate, veh/h	23	1496	2		4	1946	3	37	1	23	10	
Peak Hour Factor	0.98	0.98	0.98		0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0		0	3	0	0	0	0	0	0
Cap, veh/h	45	3596	5		27	3997	6	32	1	378	33	
Arrive On Green	0.03	0.72	0.71		0.03	1.00	1.00	0.22	0.22	0.22	0.22	
Sat Flow, veh/h	1720	5001	7		1959	5664	9	0	2	1743	0	
Grp Volume(v), veh/h	23	967	531		4	1258	691	38	0	23	10	
Grp Sat Flow(s), veh/h/ln	1720	1616	1775		1959	1831	2011	3	0	1743	0	
Q Serve(g_s), s	2.9	26.4	26.4		0.4	0.0	0.0	0.0	0.0	2.3	0.0	
Cycle Q Clear(g_c), s	2.9	26.4	26.4		0.4	0.0	0.0	47.7	0.0	2.3	47.7	
Prop In Lane	1.00		0.00		1.00		0.00	0.97		1.00	1.00	
Lane Grp Cap(c), veh/h	45	2325	1276		27	2584	1419	33	0	378	33	
V/C Ratio(X)	0.51	0.42	0.42		0.15	0.49	0.49	1.16	0.00	0.06	0.30	
Avail Cap(c_a), veh/h	227	2325	1276		235	2584	1419	33	0	378	33	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	105.7	12.4	12.4		105.6	0.0	0.0	109.3	0.0	68.4	110.0	
Incr Delay (d2), s/veh	8.6	0.6	1.0		2.4	0.7	1.2	207.3	0.0	0.1	5.1	
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	
%ile BackOfQ(95%),veh/ln	2.6	15.0	16.4		0.4	0.4	0.8	6.9	0.0	1.9	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	114.3	12.9	13.4		108.0	0.7	1.2	316.6	0.0	68.4	115.1	
LnGrp LOS	F	B	B		F	A	A	F		E	F	
Approach Vol, veh/h		1521				1953				61		
Approach Delay, s/veh		14.6				1.1				223.0		
Approach LOS		B				A				F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	161.3		52.0	9.7	158.3		52.0				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	24.4	132.9		45.2	27.1	129.9		45.2				
Max Q Clear Time (g_c+l1), s	2.4	28.4		49.7	4.9	2.0		49.7				
Green Ext Time (p_c), s	0.0	10.3		0.0	0.0	17.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh		11.2										
HCM 6th LOS		B										
<b>Notes</b>												
User approved ignoring U-Turning movement.												

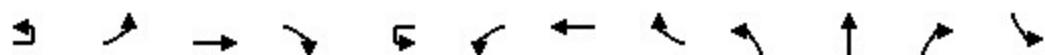


Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	8
Future Volume (veh/h)	0	8
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1806
Adj Flow Rate, veh/h	0	8
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	0	332
Arrive On Green	0.00	0.22
Sat Flow, veh/h	0	1530
Grp Volume(v), veh/h	0	8
Grp Sat Flow(s), veh/h/ln	0	1530
Q Serve(g_s), s	0.0	0.9
Cycle Q Clear(g_c), s	0.0	0.9
Prop In Lane	1.00	
Lane Grp Cap(c), veh/h	0	332
V/C Ratio(X)	0.00	0.02
Avail Cap(c_a), veh/h	0	332
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	67.8
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	0.7
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	67.9
LnGrp LOS		E
Approach Vol, veh/h	18	
Approach Delay, s/veh	94.1	
Approach LOS		F
Timer - Assigned Phs		

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	4	31	1998		29	1	7	1200	0	1	0	2
Future Volume (vph)	4	31	1998		29	1	7	1200	0	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)								-4%			-4%	
Storage Length (ft)		250			0		150		0	0		50
Storage Lanes		1			0		1		0	0		1
Taper Length (ft)		75					50			25		25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>					0.998							0.850
Flt Protected			0.950				0.950					0.950
Satd. Flow (prot)	0	1445	4832	0	0	1841	4945	0	0	921	1647	0
Flt Permitted			0.076				0.465					0.750
Satd. Flow (perm)	0	116	4832	0	0	901	4945	0	0	727	1647	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			2									44
Link Speed (mph)			35				35					25
Link Distance (ft)			641				495					200
Travel Time (s)			12.5				9.6					5.5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	25%	5%	4%	0%	0%	7%	0%	100%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	2278	0	0	9	1348	0	0	1	2	0
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5					1				8		8
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	12.9	12.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	28.0	28.0	119.0		25.0	25.0	116.0		46.0	46.0	46.0	46.0
Total Split (%)	14.7%	14.7%	62.6%		13.2%	13.2%	61.1%		24.2%	24.2%	24.2%	24.2%
Maximum Green (s)	22.1	22.1	113.9		19.4	19.4	110.9		39.2	39.2	39.2	39.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)			3.9	3.1		3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)			7.0				7.0					7.0
Flash Don't Walk (s)			14.0				14.0					21.0
Pedestrian Calls (#/hr)			5				5					5
Act Effct Green (s)	52.5	166.6			13.0	117.8			13.4	13.4		
Actuated g/C Ratio	0.28	0.88			0.07	0.62			0.07	0.07		
v/c Ratio	1.22	0.54			0.15	0.44			0.02	0.01		
Control Delay (s/veh)	290.4	7.1			80.0	18.3			75.0	0.0		
Queue Delay		0.0	0.0		0.0	0.0			0.0	0.0		



Lane Group	SBT	SBR
Lane Configurations		
Traffic Volume (vph)	0	11
Future Volume (vph)	0	11
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1353
Flt Permitted	0.757	
Satd. Flow (perm)	1410	1353
Right Turn on Red	Yes	
Satd. Flow (RTOR)	44	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.89	0.89
Heavy Vehicles (%)	0%	17%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	11	12
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases	4	
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	46.0	46.0
Total Split (%)	24.2%	24.2%
Maximum Green (s)	39.2	39.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	13.4	13.4
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.11	0.09
Control Delay (s/veh)	79.9	1.3
Queue Delay	0.0	0.0



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	290.4	7.1			80.0	18.3			75.0	0.0		
LOS	F	A			E	B			E	A		
Approach Delay (s/veh)		11.9				18.8			25.0			
Approach LOS		B				B			C			
Queue Length 50th (ft)	~60	120			11	315			1	0		
Queue Length 95th (ft)	#160	647			m31	236			8	0		
Internal Link Dist (ft)		561				415			120			
Turn Bay Length (ft)	250				150				50			
Base Capacity (vph)	32	4238			101	3108			159	395		
Starvation Cap Reductn	0	0			0	0			0	0		
Spillback Cap Reductn	0	56			0	0			0	0		
Storage Cap Reductn	0	0			0	0			0	0		
Reduced v/c Ratio	1.22	0.54			0.09	0.43			0.01	0.01		

**Intersection Summary**

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 153 (81%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 95

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay (s/veh): 14.6

Intersection LOS: B

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Analysis Period (min) 15

~ 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.

**Splits and Phases:** 10: Gatewood Plaza Driveway & Fairfax Boulevard



Lane Group	SBT	SBR
Total Delay (s/veh)	79.9	1.3
LOS	E	A
Approach Delay (s/veh)	38.9	
Approach LOS	D	
Queue Length 50th (ft)	13	0
Queue Length 95th (ft)	34	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	309	331
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.04	0.04
<b>Intersection Summary</b>		

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	31	1998	29	1	7	1200	0	1	0	2	10
Future Volume (veh/h)	4	31	1998	29	1	7	1200	0	1	0	2	10
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln	1435	1732	1746		2057	1952	2057	556	2057	2057	1806	
Adj Flow Rate, veh/h	35	2245	33		8	1348	0	1	0	2	11	
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	25	5	4		0	7	0	100	0	0	0	0
Cap, veh/h	57	4063	60		38	4386	0	40	0	133	41	
Arrive On Green	0.04	0.85	0.84		0.04	1.00	0.00	0.08	0.00	0.08	0.08	0.08
Sat Flow, veh/h	1367	4800	70		1959	5505	0	26	0	1743	42	
Grp Volume(v), veh/h	35	1473	805		8	1348	0	1	0	2	11	
Grp Sat Flow(s), veh/h/ln	1367	1576	1719		1959	1777	0	26	0	1743	42	
Q Serve(g_s), s	4.8	25.6	25.8		0.8	0.0	0.0	0.1	0.0	0.2	0.4	
Cycle Q Clear(g_c), s	4.8	25.6	25.8		0.8	0.0	0.0	14.3	0.0	0.2	14.5	
Prop In Lane	1.00		0.04		1.00		0.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	57	2668	1455		38	4386	0	40	0	133	41	
V/C Ratio(X)	0.62	0.55	0.55		0.21	0.31	0.00	0.03	0.00	0.02	0.27	
Avail Cap(c_a), veh/h	173	2668	1455		221	4386	0	261	0	383	237	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	89.6	4.2	4.2		89.9	0.0	0.0	94.8	0.0	81.2	94.9	
Incr Delay (d2), s/veh	10.4	0.8	1.5		2.6	0.2	0.0	0.3	0.0	0.0	3.4	
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	
%ile BackOfQ(95%),veh/ln	3.4	11.6	12.9		0.7	0.1	0.0	0.1	0.0	0.2	1.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	99.9	5.0	5.8		92.5	0.2	0.0	95.0	0.0	81.2	98.4	
LnGrp LOS	F	A	A		F	A		F		F	F	
Approach Vol, veh/h		2313				1356				3		
Approach Delay, s/veh		6.7				0.7				85.8		
Approach LOS		A				A				F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	163.7		18.9	11.8	159.3		18.9				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	19.4	113.9		39.2	22.1	110.9		39.2				
Max Q Clear Time (g_c+l1), s	2.8	27.8		16.5	6.8	2.0		16.3				
Green Ext Time (p_c), s	0.0	25.1		0.0	0.0	9.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			5.1									
HCM 6th LOS			A									
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	11
Future Volume (veh/h)	0	11
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1554
Adj Flow Rate, veh/h	0	12
Peak Hour Factor	0.89	0.89
Percent Heavy Veh, %	0	17
Cap, veh/h	0	100
Arrive On Green	0.00	0.08
Sat Flow, veh/h	0	1317
Grp Volume(v), veh/h	0	12
Grp Sat Flow(s), veh/h/ln	0	1317
Q Serve(g_s), s	0.0	1.6
Cycle Q Clear(g_c), s	0.0	1.6
Prop In Lane	1.00	
Lane Grp Cap(c), veh/h	0	100
V/C Ratio(X)	0.00	0.12
Avail Cap(c_a), veh/h	0	289
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	81.8
Incr Delay (d2), s/veh	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	1.0
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	82.4
LnGrp LOS		F
Approach Vol, veh/h	23	
Approach Delay, s/veh	90.0	
Approach LOS		F
Timer - Assigned Phs		

	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Group												
Lane Configurations												
Traffic Volume (vph)	9	41	1466	2	14	4	1920	3	36	1	23	17
Future Volume (vph)	9	41	1466	2	14	4	1920	3	36	1	23	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							-4%			-4%		
Storage Length (ft)		250			0		150		0	0	50	0
Storage Lanes		1			0		1		0	0	1	0
Taper Length (ft)		75					50			25		25
Lane Util. Factor	0.91	1.00	0.91	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Fr <sub>t</sub>											0.850	
Flt Protected		0.950					0.950				0.954	
Satd. Flow (prot)	0	1769	4984	0	0	1841	5137	0	0	1849	1647	0
Flt Permitted		0.055					0.221				0.719	
Satd. Flow (perm)	0	102	4984	0	0	428	5137	0	0	1393	1647	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)											38	
Link Speed (mph)		35					35			25		
Link Distance (ft)		641					495			200		
Travel Time (s)		12.5					9.6			5.5		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	3%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	1498	0	0	18	1962	0	0	38	23	0
Turn Type	custom	Prot	NA		custom	Prot	NA		Perm	NA	Perm	Perm
Protected Phases		5	2			1	6			8		
Permitted Phases	5				1				8		8	4
Detector Phase	5	5	2		1	1	6		8	8	8	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	10.9	10.9	31.1		10.6	10.6	31.1		11.8	11.8	11.8	39.8
Total Split (s)	33.0	33.0	138.0		30.0	30.0	135.0		52.0	52.0	52.0	52.0
Total Split (%)	15.0%	15.0%	62.7%		13.6%	13.6%	61.4%		23.6%	23.6%	23.6%	23.6%
Maximum Green (s)	27.1	27.1	132.9		24.4	24.4	129.9		45.2	45.2	45.2	45.2
Yellow Time (s)	3.5	3.5	4.1		3.5	3.5	4.1		3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	2.4	1.0		2.1	2.1	1.0		3.3	3.3	3.3	3.3
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0			-2.5	-2.5		
Total Lost Time (s)		3.9	3.1			3.6	3.1		4.3	4.3		
Lead/Lag	Lead	Lead	Lag		Lead	Lead	Lag					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	4.0		3.0	3.0	4.0		3.0	3.0	3.0	3.0
Recall Mode	None	None	C-Min		None	None	C-Min		None	None	None	None
Walk Time (s)		7.0					7.0				7.0	
Flash Don't Walk (s)		14.0					14.0				21.0	
Pedestrian Calls (#/hr)		5					5				5	
Act Effct Green (s)	72.3	180.3			22.1	123.0			16.1	16.1		
Actuated g/C Ratio	0.33	0.82			0.10	0.56			0.07	0.07		
v/c Ratio	1.55	0.37			0.42	0.68			0.38	0.15		
Control Delay (s/veh)	395.4	8.8			105.4	29.4			104.6	9.0		
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		



Lane Group	SBT	SBR
Lane Configurations	↓	↑
Traffic Volume (vph)	0	11
Future Volume (vph)	0	11
Ideal Flow (vphpl)	1900	1900
Grade (%)	4%	
Storage Length (ft)	50	
Storage Lanes	1	
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Fr <sub>t</sub>	0.850	
Flt Protected	0.950	
Satd. Flow (prot)	1769	1583
Flt Permitted	0.726	
Satd. Flow (perm)	1352	1583
Right Turn on Red	Yes	
Satd. Flow (RTOR)	38	
Link Speed (mph)	25	
Link Distance (ft)	200	
Travel Time (s)	5.5	
Peak Hour Factor	0.98	0.98
Heavy Vehicles (%)	0%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	17	11
Turn Type	NA	Perm
Protected Phases	4	
Permitted Phases	4	
Detector Phase	4	4
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	39.8	39.8
Total Split (s)	52.0	52.0
Total Split (%)	23.6%	23.6%
Maximum Green (s)	45.2	45.2
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.3	3.3
Lost Time Adjust (s)	-2.5	-2.5
Total Lost Time (s)	4.3	4.3
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Don't Walk (s)	21.0	21.0
Pedestrian Calls (#/hr)	5	5
Act Effect Green (s)	15.9	15.9
Actuated g/C Ratio	0.07	0.07
v/c Ratio	0.18	0.07
Control Delay (s/veh)	95.6	1.0
Queue Delay	0.0	0.0

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Total Delay (s/veh)	395.4	8.8			105.4	29.4			104.6	9.0		
LOS	F	A			F	C			F	A		
Approach Delay (s/veh)		21.5				30.1			68.6			
Approach LOS		C				C			E			
Queue Length 50th (ft)	~102	220			25	490			54	0		
Queue Length 95th (ft)	#235	424			m48	311			95	15		
Internal Link Dist (ft)		561				415			120			
Turn Bay Length (ft)	250				150				50			
Base Capacity (vph)	33	4083			56	3079			302	386		
Starvation Cap Reductn	0	0			0	114			0	0		
Spillback Cap Reductn	0	0			0	0			0	0		
Storage Cap Reductn	0	0			0	0			0	0		
Reduced v/c Ratio	1.55	0.37			0.32	0.66			0.13	0.06		

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 153 (70%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.55

Intersection Signal Delay (s/veh): 27.3

Intersection LOS: C

Intersection Capacity Utilization 60.4%

ICU Level of Service B

Analysis Period (min) 15

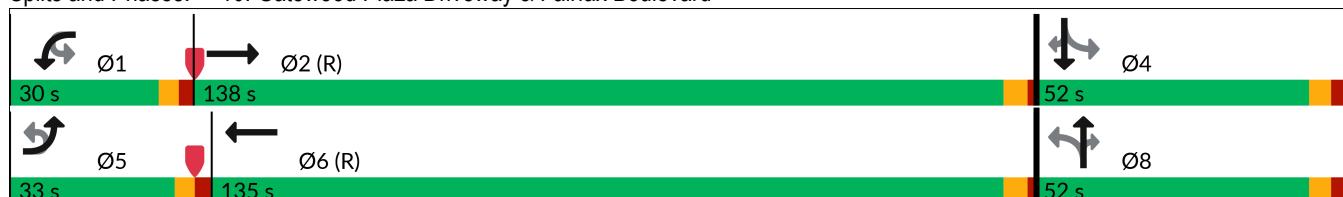
~ Volume exceeds capacity, queue is theoretically infinite.

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.

**Splits and Phases:** 10: Gatewood Plaza Driveway & Fairfax Boulevard



Lane Group	SBT	SBR
Total Delay (s/veh)	95.6	1.0
LOS	F	A
Approach Delay (s/veh)	58.4	
Approach LOS	E	
Queue Length 50th (ft)	24	0
Queue Length 95th (ft)	53	0
Internal Link Dist (ft)	120	
Turn Bay Length (ft)		50
Base Capacity (vph)	293	372
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.06	0.03
<b>Intersection Summary</b>		

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	9	41	1466	2	14	4	1920	3	36	1	23	17
Future Volume (veh/h)	9	41	1466	2	14	4	1920	3	36	1	23	17
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No				No				No		
Adj Sat Flow, veh/h/ln	1806	1776	1806		2057	2012	2057	2057	2057	2057	2057	1806
Adj Flow Rate, veh/h	42	1496	2		4	1959	3	37	1	23	17	
Peak Hour Factor	0.98	0.98	0.98		0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0		0	3	0	0	0	0	0	0
Cap, veh/h	69	3596	5		27	3919	6	32	1	378	33	
Arrive On Green	0.04	0.72	0.71		0.03	1.00	1.00	0.22	0.22	0.22	0.22	
Sat Flow, veh/h	1720	5001	7		1959	5664	9	0	2	1743	0	
Grp Volume(v), veh/h	42	967	531		4	1267	695	38	0	23	17	
Grp Sat Flow(s), veh/h/ln	1720	1616	1775		1959	1831	2011	3	0	1743	0	
Q Serve(g_s), s	5.3	26.4	26.4		0.4	0.0	0.0	0.0	0.0	2.3	0.0	
Cycle Q Clear(g_c), s	5.3	26.4	26.4		0.4	0.0	0.0	47.7	0.0	2.3	47.7	
Prop In Lane	1.00		0.00		1.00		0.00	0.97		1.00	1.00	
Lane Grp Cap(c), veh/h	69	2325	1276		27	2534	1391	33	0	378	33	
V/C Ratio(X)	0.61	0.42	0.42		0.15	0.50	0.50	1.16	0.00	0.06	0.52	
Avail Cap(c_a), veh/h	227	2325	1276		235	2534	1391	33	0	378	33	
HCM Platoon Ratio	1.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	1.00	1.00	
Uniform Delay (d), s/veh	103.9	12.4	12.4		105.6	0.0	0.0	109.3	0.0	68.4	110.0	
Incr Delay (d2), s/veh	8.5	0.6	1.0		2.4	0.7	1.3	207.9	0.0	0.1	13.7	
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	
%ile BackOfQ(95%),veh/ln	4.6	15.0	16.4		0.4	0.4	0.9	6.9	0.0	1.9	2.0	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	112.4	12.9	13.4		108.0	0.7	1.3	317.2	0.0	68.4	123.7	
LnGrp LOS	F	B	B		F	A	A	F		E	F	
Approach Vol, veh/h		1540				1966				61		
Approach Delay, s/veh		15.8				1.1				223.4		
Approach LOS		B				A				F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	161.3		52.0	12.7	155.3		52.0				
Change Period (Y+Rc), s	5.6	5.1		6.8	5.9	5.1		6.8				
Max Green Setting (Gmax), s	24.4	132.9		45.2	27.1	129.9		45.2				
Max Q Clear Time (g_c+l1), s	2.4	28.4		49.7	7.3	2.0		49.7				
Green Ext Time (p_c), s	0.0	10.3		0.0	0.1	17.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh		12.0										
HCM 6th LOS		B										
<b>Notes</b>												
User approved ignoring U-Turning movement.												



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	0	11
Future Volume (veh/h)	0	11
Initial Q (Q <sub>b</sub> ), veh	0	0
Ped-Bike Adj(A_pbT)	1.00	
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1806	1806
Adj Flow Rate, veh/h	0	11
Peak Hour Factor	0.98	0.98
Percent Heavy Veh, %	0	0
Cap, veh/h	0	332
Arrive On Green	0.00	0.22
Sat Flow, veh/h	0	1530
Grp Volume(v), veh/h	0	11
Grp Sat Flow(s), veh/h/ln	0	1530
Q Serve(g_s), s	0.0	1.2
Cycle Q Clear(g_c), s	0.0	1.2
Prop In Lane	1.00	
Lane Grp Cap(c), veh/h	0	332
V/C Ratio(X)	0.00	0.03
Avail Cap(c_a), veh/h	0	332
HCM Platoon Ratio	1.00	1.00
Upstream Filter(l)	0.00	1.00
Uniform Delay (d), s/veh	0.0	68.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.0	0.9
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	0.0	68.0
LnGrp LOS		E
Approach Vol, veh/h	28	
Approach Delay, s/veh	101.8	
Approach LOS	F	
Timer - Assigned Phs		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1889	1099	11	0	24
Future Vol, veh/h	0	1889	1099	11	0	24
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, %	-	-2	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	8	27	0	38
Mvmt Flow	0	2053	1195	12	0	26
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.86
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.28
Pot Cap-1 Maneuver	0	-	-	-	0	315
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	315
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	17.5			
HCM LOS			C			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	315		
HCM Lane V/C Ratio	-	-	-	0.083		
HCM Control Delay (s/veh)	-	-	-	17.5		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q (veh)	-	-	-	0.3		

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	0	1413	1798	34	0	20
Future Vol, veh/h	0	1413	1798	34	0	20
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, %	-	-2	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1457	1854	35	0	21

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	-	0	-	945
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	229
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	229
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	SB
----------	----	----	----

HCM Control Delay, s/v 0 0 22.3

HCM LOS C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	229
HCM Lane V/C Ratio	-	-	-	0.09
HCM Control Delay (s/veh)	-	-	-	22.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.3

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	0	2001	1166	11	0	24
Future Vol, veh/h	0	2001	1166	11	0	24
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, %	-	-2	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	8	27	0	38
Mvmt Flow	0	2175	1267	12	0	26

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.86
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	4.28
Pot Cap-1 Maneuver	0	-	-	0	297
Stage 1	0	-	-	0	-
Stage 2	0	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	297
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

**Approach** EB WB SB

HCM Control Delay, s/v	0	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	297
HCM Lane V/C Ratio	-	-	-	0.088
HCM Control Delay (s/veh)	-	-	-	18.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.3

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	0	1499	1908	35	0	20
Future Vol, veh/h	0	1499	1908	35	0	20
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, %	-	-2	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1545	1967	36	0	21

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All	-	0	-	0	-	1002
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	210
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	210
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
----------	----	----	----

HCM Control Delay, s/v	0	0	24
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-------

Capacity (veh/h)	-	-	-	210
HCM Lane V/C Ratio	-	-	-	0.098
HCM Control Delay (s/veh)	-	-	-	24
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2010	1175	16	0	33
Future Vol, veh/h	0	2010	1175	16	0	33
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, %	-	-2	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	8	27	0	38
Mvmt Flow	0	2185	1277	17	0	36
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	647
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.86
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	4.28
Pot Cap-1 Maneuver	0	-	-	-	0	294
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	294
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	18.9			
HCM LOS			C			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	294		
HCM Lane V/C Ratio	-	-	-	0.122		
HCM Control Delay (s/veh)	-	-	-	18.9		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q (veh)	-	-	-	0.4		

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1506	1915	39	0	26
Future Vol, veh/h	0	1506	1915	39	0	26
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, %	-	-2	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1553	1974	40	0	27
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	1007
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	208
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	208
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	24.9			
HCM LOS			C			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	208		
HCM Lane V/C Ratio	-	-	-	0.129		
HCM Control Delay (s/veh)	-	-	-	24.9		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q (veh)	-	-	-	0.4		

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑↑↑↑↑↑			↑	
Traffic Vol, veh/h	0	1889	1109	14	0	1
Future Vol, veh/h	0	1889	1109	14	0	1
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, %	-	4	-2	-	-4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	4	7	36	0	0
Mvmt Flow	0	2031	1192	15	0	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	409
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	409
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	13.8			
HCM LOS			B			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	409		
HCM Lane V/C Ratio	-	-	-	0.003		
HCM Control Delay (s/veh)	-	-	-	13.8		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q (veh)	-	-	-	0		

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	0	1413	1820	5	0	12
Future Vol, veh/h	0	1413	1820	5	0	12
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, %	-	4	-2	-	-4	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1457	1876	5	0	12

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All	-	0	-	0	-	941
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	255
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	255
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
----------	----	----	----

HCM Control Delay, s/v	0	0	19.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-------

Capacity (veh/h)	-	-	-	255
HCM Lane V/C Ratio	-	-	-	0.049
HCM Control Delay (s/veh)	-	-	-	19.8
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.2

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2001	1176	14	0	1
Future Vol, veh/h	0	2001	1176	14	0	1
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, %	-	4	-2	-	-4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	4	7	36	0	0
Mvmt Flow	0	2152	1265	15	0	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	640
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	389
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	389
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	14.3			
HCM LOS			B			
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	389		
HCM Lane V/C Ratio	-	-	-	0.003		
HCM Control Delay (s/veh)	-	-	-	14.3		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q (veh)	-	-	-	0		

**Intersection**

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	0	1499	1931	5	0	12
Future Vol, veh/h	0	1499	1931	5	0	12
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, %	-	4	-2	-	-4	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1545	1991	5	0	12

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All	-	0	-	0	-	998
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	236
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	236
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
----------	----	----	----

HCM Control Delay, s/v	0	0	21.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-------

Capacity (veh/h)	-	-	-	236
HCM Lane V/C Ratio	-	-	-	0.052
HCM Control Delay (s/veh)	-	-	-	21.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q (veh)	-	-	-	0.2

**Intersection**

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations						
Traffic Vol, veh/h	0	2010	1181	28	0	10
Future Vol, veh/h	0	2010	1181	28	0	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, %	-	4	-2	-	-4	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	4	7	36	0	0
Mvmt Flow	0	2161	1270	30	0	11

Major/Minor	Major1	Major2	Minor2
-------------	--------	--------	--------

Conflicting Flow All	-	0	-	0	-	650
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	384
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	384
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
----------	----	----	----

HCM Control Delay, s/v	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
-----------------------	-----	-----	-----	-------

Capacity (veh/h)	-	-	-	384
HCM Lane V/C Ratio	-	-	-	0.028
HCM Control Delay (s/veh)	-	-	-	14.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q (veh)	-	-	-	0.1

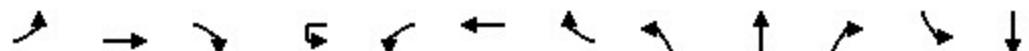
Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑		↑	
Traffic Vol, veh/h	0	1506	1935	15	0	19
Future Vol, veh/h	0	1506	1935	15	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	4	-2	-	-4	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	1553	1995	15	0	20
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	1005
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.7
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	233
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	233
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0	0	21.9			
HCM LOS				C		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	233		
HCM Lane V/C Ratio	-	-	-	0.084		
HCM Control Delay (s/veh)	-	-	-	21.9		
HCM Lane LOS	-	-	-	C		
HCM 95th %tile Q (veh)	-	-	-	0.3		

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Configurations													
Traffic Volume (vph)	45	1844		0	4	1	982	45	2	0	1	124	0
Future Volume (vph)	45	1844		0	4	1	982	45	2	0	1	124	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							2%			2%			2%
Storage Length (ft)	400			0		80		240	0		0	0	
Storage Lanes	1			0		1		1	0		0	0	
Taper Length (ft)	100					25			25			25	
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>							0.850			0.955			
Flt Protected	0.950					0.950				0.968			0.950
Satd. Flow (prot)	1687	4940	0	0	1787	4711	1523	0	1301	0	0	1752	
Flt Permitted	0.950					0.870				0.876			0.756
Satd. Flow (perm)	1687	4940	0	0	1636	4711	1523	0	1177	0	0	1394	
Right Turn on Red				Yes			Yes			Yes			
Satd. Flow (RTOR)							87			47			
Link Speed (mph)		35				35			25			25	
Link Distance (ft)		187				398			200			373	
Travel Time (s)		3.6				7.8			5.5			10.2	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
Heavy Vehicles (%)	7%	5%	0%	0%	0%	9%	5%	50%	0%	1%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	51	2072	0	0	5	1103	51	0	3	0	0	139	
Turn Type	Prot	NA		custom	Prot	NA	Free	Perm	NA		Perm	NA	
Protected Phases	1	6			5	2			4			8	
Permitted Phases				5			Free	4			8		
Detector Phase	1	6		5	5	2		4	4		8	8	
Switch Phase													
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0	
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0	
Total Split (s)	25.0	129.0		21.0	21.0	125.0		40.0	40.0		40.0	40.0	
Total Split (%)	13.2%	67.9%		11.1%	11.1%	65.8%		21.1%	21.1%		21.1%	21.1%	
Maximum Green (s)	18.5	123.4		15.5	15.5	119.4		32.9	32.9		32.9	32.9	
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5		
Total Lost Time (s)	4.5	3.6			3.5	3.6		4.6			4.6		
Lead/Lag	Lead	Lag		Lead	Lead	Lag							
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None	
Walk Time (s)							8.0				7.0	7.0	
Flash Don't Walk (s)							33.0				23.0	23.0	
Pedestrian Calls (#/hr)						5				5	5		
Act Effct Green (s)	13.2	151.4			10.3	140.0	190.0		26.7			26.7	
Actuated g/C Ratio	0.07	0.80			0.05	0.74	1.00		0.14			0.14	
v/c Ratio	0.44	0.53			0.06	0.32	0.03		0.01			0.71	
Control Delay (s/veh)	97.9	9.2			84.3	10.1	0.0		0.0			96.5	
Queue Delay	0.0	0.1			0.0	0.0	0.0		0.0			0.0	

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	139
Future Volume (vph)	139
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1523
Flt Permitted	
Satd. Flow (perm)	1523
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.89
Heavy Vehicles (%)	5%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	156
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	40.0
Total Split (%)	21.1%
Maximum Green (s)	32.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	26.7
Actuated g/C Ratio	0.14
v/c Ratio	0.45
Control Delay (s/veh)	12.6
Queue Delay	0.0

3486 22-02730

Existing - AM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	97.9	9.3		84.3	10.1	0.0		0.0				96.5
LOS	F	A		F	B	A		A				F
Approach Delay (s/veh)		11.4				10.0						52.2
Approach LOS		B				A						D
Queue Length 50th (ft)	62	264		6	171	0		0				169
Queue Length 95th (ft)	101	806		23	242	0		0				238
Internal Link Dist (ft)		107			318			120				293
Turn Bay Length (ft)	400			80		240						
Base Capacity (vph)	182	3936		150	3471	1523		257				259
Starvation Cap Reductn	0	528		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.28	0.61		0.03	0.32	0.03		0.01				0.54

#### Intersection Summary

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 171 (90%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 14.3

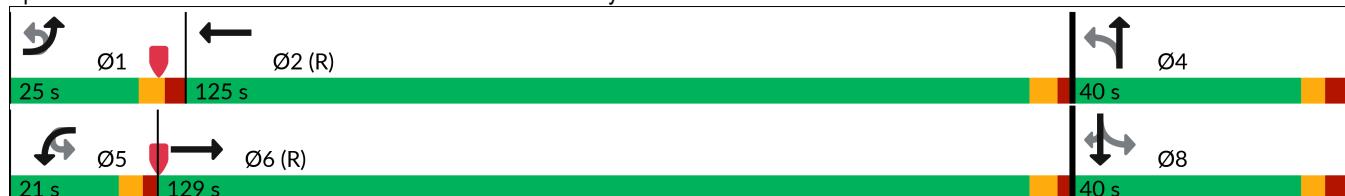
Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard





Lane Group	SBR
Total Delay (s/veh)	12.6
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	67
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	410
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.38
<hr/> <b>Intersection Summary</b>	

3486 22-02730

Existing - AM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	45	1844	0	4	1	982	45	2	0	1	124	0
Future Volume (veh/h)	45	1844	0	4	1	982	45	2	0	1	124	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No		No	
Adj Sat Flow, veh/h/ln	1796	1826	1900		1876	1743	1802	1135	1876	1862	1847	1876
Adj Flow Rate, veh/h	51	2072	0		1	1103	0	2	0	1	139	0
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	5	0		0	9	5	50	0	1	2	0
Cap, veh/h	81	4019	0		21	3643		165	6	70	209	0
Arrive On Green	0.09	1.00	0.00		0.01	0.77	0.00	0.12	0.00	0.11	0.12	0.00
Sat Flow, veh/h	1711	5149	0		1787	4759	1527	1110	52	581	1425	0
Grp Volume(v), veh/h	51	2072	0		1	1103	0	3	0	0	139	0
Grp Sat Flow(s), veh/h/ln	1711	1662	0		1787	1586	1527	1742	0	0	1425	0
Q Serve(g_s), s	5.5	0.0	0.0		0.1	13.4	0.0	0.0	0.0	0.0	17.8	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0		0.1	13.4	0.0	0.3	0.0	0.0	18.0	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.67		0.33	1.00	
Lane Grp Cap(c), veh/h	81	4019	0		21	3643		241	0	0	209	0
V/C Ratio(X)	0.63	0.52	0.00		0.05	0.30		0.01	0.00	0.00	0.66	0.00
Avail Cap(c_a), veh/h	185	4019	0		165	3643		338	0	0	303	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	84.4	0.0	0.0		92.8	6.8	0.0	74.0	0.0	0.0	81.4	0.0
Incr Delay (d2), s/veh	7.8	0.5	0.0		0.9	0.2	0.0	0.0	0.0	0.0	3.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.5	0.3	0.0		0.1	8.0	0.0	0.2	0.0	0.0	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.1	0.5	0.0		93.7	7.0	0.0	74.0	0.0	0.0	85.0	0.0
LnGrp LOS	F	A			F	A		E			F	
Approach Vol, veh/h	2123				1104			3			139	
Approach Delay, s/veh	2.7				7.1			74.0			85.0	
Approach LOS	A				A			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s	13.5	149.1		27.4	5.8	156.8		27.4				
Change Period (Y+R <sub>c</sub> ), s	6.5	5.6		7.1	5.5	5.6		7.1				
Max Green Setting (Gmax), s	18.5	119.4		32.9	15.5	123.4		32.9				
Max Q Clear Time (g_c+l1), s	7.5	15.4		2.3	2.1	2.0		20.0				
Green Ext Time (p_c), s	0.1	10.0		0.0	0.0	43.3		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			7.6									
HCM 6th LOS			A									
<b>Notes</b>												
User approved ignoring U-Turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												



Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	139
Future Volume (veh/h)	139
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1802
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.89
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1527
Grp Volume(v), veh/h	0
Grp Sat Flow(s), veh/h/ln	1527
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%), veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	
Lane Configurations													
Traffic Volume (vph)	119	1293		1	2	1	1720	122	0	1	0	89	0
Future Volume (vph)	119	1293		1	2	1	1720	122	0	1	0	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							2%			2%			2%
Storage Length (ft)	400			0		80		240	0		0	0	
Storage Lanes	1			0		1		1	0		0	0	
Taper Length (ft)	100					25			25			25	
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>							0.850						
Flt Protected		0.950				0.950						0.950	
Satd. Flow (prot)	1787	5036	0	0	1340	4986	1599	0	940	0	0	1752	
Flt Permitted		0.950				0.784						0.757	
Satd. Flow (perm)	1787	5036	0	0	1106	4986	1599	0	940	0	0	1396	
Right Turn on Red			Yes				Yes			Yes			
Satd. Flow (RTOR)							75						
Link Speed (mph)		35				35			25			25	
Link Distance (ft)		187				398			200			373	
Travel Time (s)		3.6				7.8			5.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	1%	3%	0%	0%	100%	3%	0%	0%	100%	0%	2%	0%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	128	1391	0	0	3	1849	131	0	1	0	0	96	
Turn Type	Prot	NA	custom	Prot	NA	Free			NA		Perm	NA	
Protected Phases	1	6		5	2				4			8	
Permitted Phases			5			Free	4				8		
Detector Phase	1	6		5	5	2		4	4		8	8	
Switch Phase													
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0	
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0	
Total Split (s)	30.0	157.0		25.0	25.0	152.0		38.0	38.0		38.0	38.0	
Total Split (%)	13.6%	71.4%		11.4%	11.4%	69.1%		17.3%	17.3%		17.3%	17.3%	
Maximum Green (s)	23.5	151.4		19.5	19.5	146.4		30.9	30.9		30.9	30.9	
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5	
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5		
Total Lost Time (s)	4.5	3.6		3.5	3.6			4.6			4.6		
Lead/Lag	Lead	Lag		Lead	Lead	Lag							
Lead-Lag Optimize?													
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None	
Walk Time (s)						8.0					7.0	7.0	
Flash Don't Walk (s)						33.0					23.0	23.0	
Pedestrian Calls (#/hr)						5					5	5	
Act Effct Green (s)	22.3	184.3		11.2	161.6	220.0		23.3				23.3	
Actuated g/C Ratio	0.10	0.84		0.05	0.73	1.00		0.11				0.11	
v/c Ratio	0.71	0.33		0.05	0.50	0.08		0.01				0.65	
Control Delay (s/veh)	106.6	7.2		98.0	13.7	0.1		83.0				113.4	
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0				0.0	

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	105
Future Volume (vph)	105
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1552
Flt Permitted	
Satd. Flow (perm)	1552
Right Turn on Red	Yes
Satd. Flow (RTOR)	113
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.93
Heavy Vehicles (%)	3%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	113
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	38.0
Total Split (%)	17.3%
Maximum Green (s)	30.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	23.3
Actuated g/C Ratio	0.11
v/c Ratio	0.43
Control Delay (s/veh)	16.6
Queue Delay	0.0

3486 22-02730

Existing - PM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	106.6	7.4			98.0	13.7	0.1		83.0			113.4
LOS	F	A			F	B	A		F			F
Approach Delay (s/veh)		15.7				13.0			83.0			61.1
Approach LOS		B				B			F			E
Queue Length 50th (ft)	183	123			4	394	0		1			137
Queue Length 95th (ft)	243	549			19	522	0		9			204
Internal Link Dist (ft)		107				318			120			293
Turn Bay Length (ft)	400				80		240					
Base Capacity (vph)	209	4217			108	3663	1599		142			211
Starvation Cap Reductn	0	1470			0	0	0		0			0
Spillback Cap Reductn	0	0			0	0	0		0			0
Storage Cap Reductn	0	0			0	0	0		0			0
Reduced v/c Ratio	0.61	0.51			0.03	0.50	0.08		0.01			0.45

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 171 (78%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 16.8

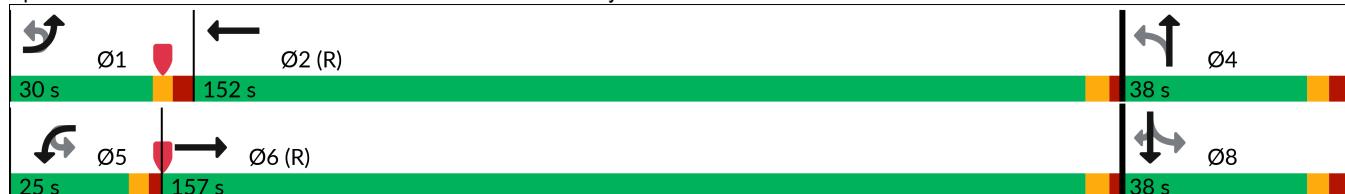
Intersection LOS: B

Intersection Capacity Utilization 69.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard

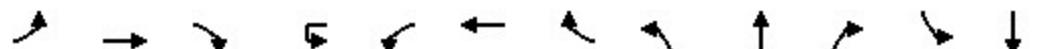




Lane Group	SBR
Total Delay (s/veh)	16.6
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	70
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	331
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.34
<hr/> <b>Intersection Summary</b>	

3486 22-02730

Existing - PM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	119	1293	1	2	1	1720	122	0	1	0	89	0
Future Volume (veh/h)	119	1293	1	2	1	1720	122	0	1	0	89	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No		No	
Adj Sat Flow, veh/h/ln	1885	1856	1900		394	1832	1876	1876	394	1876	1847	1876
Adj Flow Rate, veh/h	128	1390	1		1	1849	0	0	1	0	96	0
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0		100	3	0	0	100	0	2	0
Cap, veh/h	157	4427	3		4	3827		0	35	0	157	0
Arrive On Green	0.18	1.00	1.00		0.01	0.77	0.00	0.00	0.09	0.00	0.09	0.00
Sat Flow, veh/h	1795	5228	4		376	5001	1590	0	394	0	1384	0
Grp Volume(v), veh/h	128	898	493		1	1849	0	0	1	0	96	0
Grp Sat Flow(s), veh/h/ln	1795	1689	1855		376	1667	1590	0	394	0	1384	0
Q Serve(g_s), s	15.1	0.0	0.0		0.6	30.3	0.0	0.0	0.5	0.0	14.6	0.0
Cycle Q Clear(g_c), s	15.1	0.0	0.0		0.6	30.3	0.0	0.0	0.5	0.0	15.1	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.00		0.00	1.00	
Lane Grp Cap(c), veh/h	157	2860	1571		4	3827		0	35	0	157	0
V/C Ratio(X)	0.81	0.31	0.31		0.26	0.48		0.00	0.03	0.00	0.61	0.00
Avail Cap(c_a), veh/h	208	2860	1571		37	3827		0	60	0	245	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	89.0	0.0	0.0		108.0	9.6	0.0	0.0	91.4	0.0	98.3	0.0
Incr Delay (d2), s/veh	16.6	0.3	0.5		31.1	0.4	0.0	0.0	0.3	0.0	3.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	11.8	0.2	0.4		0.2	16.6	0.0	0.0	0.1	0.0	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	105.7	0.3	0.5		139.1	10.1	0.0	0.0	91.7	0.0	102.1	0.0
LnGrp LOS	F	A	A		F	B			F		F	
Approach Vol, veh/h		1519				1850			1			96
Approach Delay, s/veh		9.2				10.1			91.7			102.1
Approach LOS		A				B			F			F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.8	171.9		24.3	5.8	189.9		24.3				
Change Period (Y+Rc), s	6.5	5.6		7.1	5.5	5.6		7.1				
Max Green Setting (Gmax), s	23.5	146.4		30.9	19.5	151.4		30.9				
Max Q Clear Time (g_c+l1), s	17.1	32.3		2.5	2.6	2.0		17.1				
Green Ext Time (p_c), s	0.2	26.4		0.0	0.0	16.1		0.2				

**Intersection Summary**

HCM 6th Ctrl Delay, s/veh

12.3

HCM 6th LOS

B

**Notes**

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	105
Future Volume (veh/h)	105
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1832
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.93
Percent Heavy Veh, %	3
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1553
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1553
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

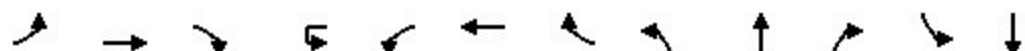
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	46	1955		0	4	1	1046	46	2	0	1	126
Future Volume (vph)	46	1955		0	4	1	1046	46	2	0	1	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							2%			2%		2%
Storage Length (ft)	400			0		80		240	0		0	0
Storage Lanes	1			0		1		1	0		0	0
Taper Length (ft)	100					25			25			25
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>							0.850			0.955		
Flt Protected	0.950					0.950				0.968		0.950
Satd. Flow (prot)	1687	4940		0	0	1787	4711	1523	0	1301	0	0
Flt Permitted	0.950					0.870				0.876		0.756
Satd. Flow (perm)	1687	4940		0	0	1636	4711	1523	0	1177	0	0
Right Turn on Red				Yes			Yes			Yes		
Satd. Flow (RTOR)							87			47		
Link Speed (mph)		35				35			25			25
Link Distance (ft)		187				398			200			373
Travel Time (s)		3.6				7.8			5.5			10.2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	7%	5%	0%	0%	0%	9%	5%	50%	0%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	2197	0	0	5	1175	52	0	3	0	0	142
Turn Type	Prot	NA		custom	Prot	NA	Free	Perm	NA		Perm	NA
Protected Phases	1	6			5	2			4			8
Permitted Phases				5			Free	4				8
Detector Phase	1	6		5	5	2		4	4		8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0
Total Split (s)	25.0	129.0		21.0	21.0	125.0		40.0	40.0		40.0	40.0
Total Split (%)	13.2%	67.9%		11.1%	11.1%	65.8%		21.1%	21.1%		21.1%	21.1%
Maximum Green (s)	18.5	123.4		15.5	15.5	119.4		32.9	32.9		32.9	32.9
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5	
Total Lost Time (s)	4.5	3.6		3.5	3.6			4.6			4.6	
Lead/Lag	Lead	Lag		Lead	Lead	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None
Walk Time (s)							8.0				7.0	7.0
Flash Don't Walk (s)							33.0				23.0	23.0
Pedestrian Calls (#/hr)						5				5	5	
Act Effct Green (s)	13.3	151.1		10.3	139.6	190.0		27.1				27.1
Actuated g/C Ratio	0.07	0.80		0.05	0.73	1.00		0.14				0.14
v/c Ratio	0.44	0.56		0.06	0.34	0.03		0.01				0.72
Control Delay (s/veh)	101.5	8.3		84.3	10.5	0.0		0.0				96.8
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0				0.0

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1523
Flt Permitted	
Satd. Flow (perm)	1523
Right Turn on Red	Yes
Satd. Flow (RTOR)	160
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.89
Heavy Vehicles (%)	5%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	160
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	40.0
Total Split (%)	21.1%
Maximum Green (s)	32.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	27.1
Actuated g/C Ratio	0.14
v/c Ratio	0.45
Control Delay (s/veh)	12.5
Queue Delay	0.0

3486 22-02730

No Build - AM

40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	101.5	8.4		84.3	10.5	0.0		0.0				96.8
LOS	F	A			F	B	A		A			F
Approach Delay (s/veh)		10.5				10.3						52.1
Approach LOS		B				B						D
Queue Length 50th (ft)	64	296			6	187	0		0			172
Queue Length 95th (ft)	105	770			23	263	0		0			244
Internal Link Dist (ft)		107				318			120			293
Turn Bay Length (ft)	400				80		240					
Base Capacity (vph)	182	3927			150	3461	1523		257			259
Starvation Cap Reductn	0	362			0	0	0		0			0
Spillback Cap Reductn	0	0			0	0	0		0			0
Storage Cap Reductn	0	0			0	0	0		0			0
Reduced v/c Ratio	0.29	0.62			0.03	0.34	0.03		0.01			0.55

**Intersection Summary**

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 171 (90%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay (s/veh): 13.8

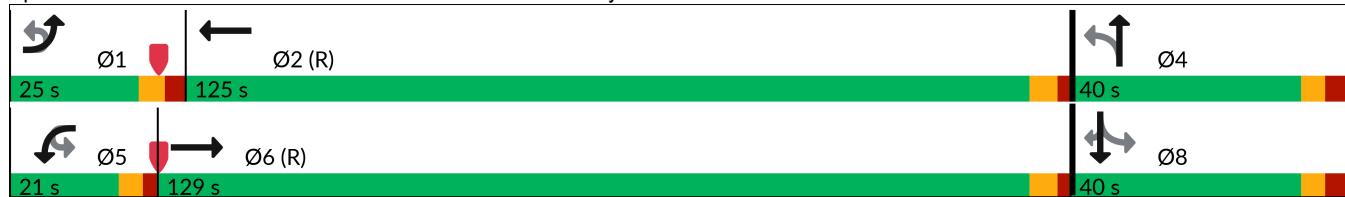
Intersection LOS: B

Intersection Capacity Utilization 56.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard





Lane Group	SBR
Total Delay (s/veh)	12.5
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	68
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	413
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.39
<b>Intersection Summary</b>	

3486 22-02730

No Build - AM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	46	1955	0	4	1	1046	46	2	0	1	126	0
Future Volume (veh/h)	46	1955	0	4	1	1046	46	2	0	1	126	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No		No	
Adj Sat Flow, veh/h/ln	1796	1826	1900		1876	1743	1802	1135	1876	1862	1847	1876
Adj Flow Rate, veh/h	52	2197	0		1	1175	0	2	0	1	142	0
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	5	0		0	9	5	50	0	1	2	0
Cap, veh/h	82	4009	0		21	3630		167	6	71	212	0
Arrive On Green	0.10	1.00	0.00		0.01	0.76	0.00	0.12	0.00	0.11	0.12	0.00
Sat Flow, veh/h	1711	5149	0		1787	4759	1527	1111	51	581	1425	0
Grp Volume(v), veh/h	52	2197	0		1	1175	0	3	0	0	142	0
Grp Sat Flow(s), veh/h/ln	1711	1662	0		1787	1586	1527	1743	0	0	1425	0
Q Serve(g_s), s	5.6	0.0	0.0		0.1	14.8	0.0	0.0	0.0	0.0	18.2	0.0
Cycle Q Clear(g_c), s	5.6	0.0	0.0		0.1	14.8	0.0	0.3	0.0	0.0	18.4	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.67		0.33	1.00	
Lane Grp Cap(c), veh/h	82	4009	0		21	3630		245	0	0	212	0
V/C Ratio(X)	0.63	0.55	0.00		0.05	0.32		0.01	0.00	0.00	0.67	0.00
Avail Cap(c_a), veh/h	185	4009	0		165	3630		339	0	0	303	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	84.2	0.0	0.0		92.8	7.1	0.0	73.7	0.0	0.0	81.2	0.0
Incr Delay (d2), s/veh	7.8	0.5	0.0		0.9	0.2	0.0	0.0	0.0	0.0	3.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	4.6	0.4	0.0		0.1	8.6	0.0	0.2	0.0	0.0	11.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.0	0.5	0.0		93.7	7.3	0.0	73.7	0.0	0.0	84.9	0.0
LnGrp LOS	F	A			F	A		E			F	
Approach Vol, veh/h	2249				1176			3			142	
Approach Delay, s/veh	2.7				7.4			73.7			84.9	
Approach LOS	A				A			E			F	

**Intersection Summary**

HCM 6th Ctrl Delay, s/veh

7.6

HCM 6th LOS

A

**Notes**

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	142
Future Volume (veh/h)	142
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1802
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.89
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1527
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1527
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

3486 22-02730

No Build - PM  
40: Fire Station #33/Fair Woods Parkway & Fairfax Boulevard

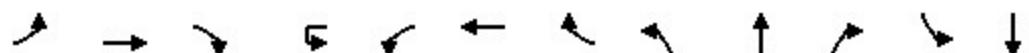
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	121	1377		1	2	1	1829	125	0	1	0	91
Future Volume (vph)	121	1377		1	2	1	1829	125	0	1	0	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							2%			2%		2%
Storage Length (ft)	400			0		80		240	0		0	0
Storage Lanes	1			0		1		1	0		0	0
Taper Length (ft)	100					25			25			25
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>							0.850					
Flt Protected		0.950					0.950					0.950
Satd. Flow (prot)	1787	5036		0	0	1340	4986	1599	0	940	0	0
Flt Permitted		0.950				0.784						0.757
Satd. Flow (perm)	1787	5036		0	0	1106	4986	1599	0	940	0	0
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							75					
Link Speed (mph)		35				35			25			25
Link Distance (ft)		187				398			200			373
Travel Time (s)		3.6				7.8			5.5			10.2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	100%	3%	0%	0%	100%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	1482	0	0	3	1967	134	0	1	0	0	98
Turn Type	Prot	NA		custom	Prot	NA	Free		NA		Perm	NA
Protected Phases	1	6			5	2			4			8
Permitted Phases			5			Free	4			8		
Detector Phase	1	6		5	5	2		4	4		8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0
Total Split (s)	30.0	157.0		25.0	25.0	152.0		38.0	38.0		38.0	38.0
Total Split (%)	13.6%	71.4%		11.4%	11.4%	69.1%		17.3%	17.3%		17.3%	17.3%
Maximum Green (s)	23.5	151.4		19.5	19.5	146.4		30.9	30.9		30.9	30.9
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5	
Total Lost Time (s)	4.5	3.6		3.5	3.6			4.6			4.6	
Lead/Lag	Lead	Lag		Lead	Lead	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None
Walk Time (s)							8.0				7.0	7.0
Flash Don't Walk (s)							33.0				23.0	23.0
Pedestrian Calls (#/hr)						5				5	5	
Act Effct Green (s)	22.5	184.0		11.2	161.2	220.0		23.6				23.6
Actuated g/C Ratio	0.10	0.84		0.05	0.73	1.00		0.11				0.11
v/c Ratio	0.71	0.35		0.05	0.54	0.08		0.01				0.66
Control Delay (s/veh)	123.8	3.6		98.0	14.5	0.1		83.0				113.7
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0				0.0

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	107
Future Volume (vph)	107
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1552
Flt Permitted	
Satd. Flow (perm)	1552
Right Turn on Red	Yes
Satd. Flow (RTOR)	115
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.93
Heavy Vehicles (%)	3%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	115
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	38.0
Total Split (%)	17.3%
Maximum Green (s)	30.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	23.6
Actuated g/C Ratio	0.11
v/c Ratio	0.43
Control Delay (s/veh)	16.5
Queue Delay	0.0

3486 22-02730

No Build - PM

40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	123.8	3.7			98.0	14.5	0.1		83.0			113.7
LOS	F	A			F	B	A		F			F
Approach Delay (s/veh)		13.4				13.7			83.0			61.2
Approach LOS		B				B			F			E
Queue Length 50th (ft)	187	136			4	441	0		1			140
Queue Length 95th (ft)	257	15			19	574	0		9			209
Internal Link Dist (ft)		107				318			120			293
Turn Bay Length (ft)	400				80		240					
Base Capacity (vph)	209	4212			108	3654	1599		142			211
Starvation Cap Reductn	0	1193			0	0	0		0			0
Spillback Cap Reductn	0	0			0	0	0		0			0
Storage Cap Reductn	0	0			0	0	0		0			0
Reduced v/c Ratio	0.62	0.49			0.03	0.54	0.08		0.01			0.46

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 171 (78%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 16.2

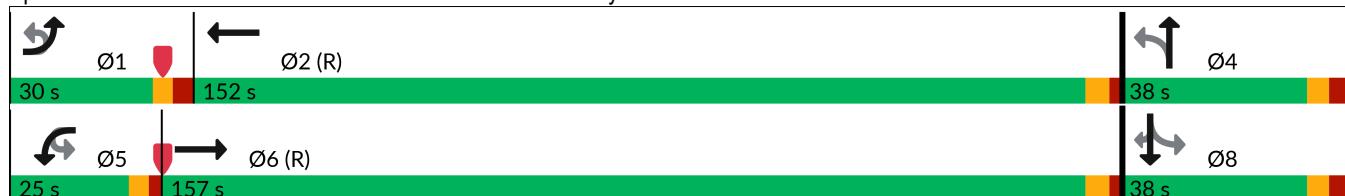
Intersection LOS: B

Intersection Capacity Utilization 71.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard





Lane Group	SBR
Total Delay (s/veh)	16.5
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	68
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	333
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.35
<hr/> <b>Intersection Summary</b>	

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	121	1377	1	2	1	1829	125	0	1	0	91	0
Future Volume (veh/h)	121	1377	1	2	1	1829	125	0	1	0	91	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No		No	
Adj Sat Flow, veh/h/ln	1885	1856	1900		394	1832	1876	1876	394	1876	1847	1876
Adj Flow Rate, veh/h	130	1481	1		1	1967	0	0	1	0	98	0
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0		100	3	0	0	100	0	2	0
Cap, veh/h	159	4420	3		4	3815		0	36	0	159	0
Arrive On Green	0.18	1.00	1.00		0.01	0.76	0.00	0.00	0.09	0.00	0.09	0.00
Sat Flow, veh/h	1795	5228	4		376	5001	1590	0	394	0	1385	0
Grp Volume(v), veh/h	130	957	525		1	1967	0	0	1	0	98	0
Grp Sat Flow(s), veh/h/ln	1795	1689	1855		376	1667	1590	0	394	0	1385	0
Q Serve(g_s), s	15.3	0.0	0.0		0.6	33.8	0.0	0.0	0.5	0.0	14.9	0.0
Cycle Q Clear(g_c), s	15.3	0.0	0.0		0.6	33.8	0.0	0.0	0.5	0.0	15.4	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.00		0.00	1.00	
Lane Grp Cap(c), veh/h	159	2855	1568		4	3815		0	36	0	159	0
V/C Ratio(X)	0.82	0.34	0.34		0.26	0.52		0.00	0.03	0.00	0.62	0.00
Avail Cap(c_a), veh/h	208	2855	1568		37	3815		0	60	0	245	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	88.8	0.0	0.0		108.0	10.2	0.0	0.0	91.1	0.0	98.1	0.0
Incr Delay (d2), s/veh	17.2	0.3	0.6		31.1	0.5	0.0	0.0	0.3	0.0	3.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.9	0.2	0.5		0.2	18.3	0.0	0.0	0.1	0.0	9.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	106.0	0.3	0.6		139.1	10.7	0.0	0.0	91.4	0.0	102.0	0.0
LnGrp LOS	F	A	A		F	B			F		F	
Approach Vol, veh/h		1612				1968			1			98
Approach Delay, s/veh		8.9				10.8			91.4			102.0
Approach LOS		A				B			F			F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s	24.0	171.4		24.6	5.8	189.6		24.6				
Change Period (Y+R <sub>c</sub> ), s	6.5	5.6		7.1	5.5	5.6		7.1				
Max Green Setting (Gmax), s	23.5	146.4		30.9	19.5	151.4		30.9				
Max Q Clear Time (g_c+l1), s	17.3	35.8		2.5	2.6	2.0		17.4				
Green Ext Time (p_c), s	0.2	30.5		0.0	0.0	18.2		0.2				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay, s/veh			12.4									
HCM 6th LOS			B									
<b>Notes</b>												
User approved ignoring U-Turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	107
Future Volume (veh/h)	107
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1832
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.93
Percent Heavy Veh, %	3
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1553
Grp Volume(v), veh/h	0
Grp Sat Flow(s),veh/h/ln	1553
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

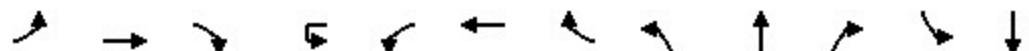
	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group												
Lane Configurations	1	1↑↑1			1	1↑↑1	1↑		1↓			1↓
Traffic Volume (vph)	46	1964	0	4	1	1065	46	2	0	1	135	0
Future Volume (vph)	46	1964	0	4	1	1065	46	2	0	1	135	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%				2%			2%			2%
Storage Length (ft)	400		0		80		240	0		0	0	
Storage Lanes	1		0		1		1	0		0	0	
Taper Length (ft)	100				25			25			25	
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>						0.850			0.955			
Flt Protected	0.950				0.950				0.968			0.950
Satd. Flow (prot)	1687	4940	0	0	1787	4711	1523	0	1301	0	0	1752
Flt Permitted	0.950				0.870				0.876			0.756
Satd. Flow (perm)	1687	4940	0	0	1636	4711	1523	0	1177	0	0	1394
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							87		47			
Link Speed (mph)		35				35			25			25
Link Distance (ft)		187				398			200			373
Travel Time (s)		3.6				7.8			5.5			10.2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	7%	5%	0%	0%	0%	9%	5%	50%	0%	1%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	2207	0	0	5	1197	52	0	3	0	0	152
Turn Type	Prot	NA		custom	Prot	NA	Free	Perm	NA		Perm	NA
Protected Phases	1	6			5	2			4			8
Permitted Phases				5			Free	4			8	
Detector Phase	1	6		5	5	2		4	4		8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0
Total Split (s)	25.0	129.0		21.0	21.0	125.0		40.0	40.0		40.0	40.0
Total Split (%)	13.2%	67.9%		11.1%	11.1%	65.8%		21.1%	21.1%		21.1%	21.1%
Maximum Green (s)	18.5	123.4		15.5	15.5	119.4		32.9	32.9		32.9	32.9
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5	
Total Lost Time (s)	4.5	3.6		3.5	3.6			4.6			4.6	
Lead/Lag	Lead	Lag		Lead	Lead	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None
Walk Time (s)						8.0				7.0	7.0	
Flash Don't Walk (s)						33.0				23.0	23.0	
Pedestrian Calls (#/hr)						5				5	5	
Act Effct Green (s)	13.3	150.1		10.3	138.6	190.0		28.0				28.0
Actuated g/C Ratio	0.07	0.79		0.05	0.73	1.00		0.15				0.15
v/c Ratio	0.44	0.57		0.06	0.35	0.03		0.01				0.74
Control Delay (s/veh)	101.0	9.1		84.3	10.9	0.0		0.0				98.0
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0				0.0

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	142
Future Volume (vph)	142
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1523
Flt Permitted	
Satd. Flow (perm)	1523
Right Turn on Red	Yes
Satd. Flow (RTOR)	160
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.89
Heavy Vehicles (%)	5%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	160
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	40.0
Total Split (%)	21.1%
Maximum Green (s)	32.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	28.0
Actuated g/C Ratio	0.15
v/c Ratio	0.44
Control Delay (s/veh)	12.2
Queue Delay	0.0

3486 22-02730

Build - AM

40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	101.0	9.2		84.3	10.9	0.0		0.0				98.0
LOS	F	A		F	B	A		A				F
Approach Delay (s/veh)		11.4				10.7						54.0
Approach LOS		B				B						D
Queue Length 50th (ft)	64	312		6	198	0		0				184
Queue Length 95th (ft)	105	775		23	269	0		0				261
Internal Link Dist (ft)		107			318			120				293
Turn Bay Length (ft)	400			80		240						
Base Capacity (vph)	182	3902		150	3437	1523		257				259
Starvation Cap Reductn	0	546		0	0	0		0				0
Spillback Cap Reductn	0	0		0	0	0		0				0
Storage Cap Reductn	0	0		0	0	0		0				0
Reduced v/c Ratio	0.29	0.66		0.03	0.35	0.03		0.01				0.59

**Intersection Summary**

Area Type: Other

Cycle Length: 190

Actuated Cycle Length: 190

Offset: 171 (90%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 14.6

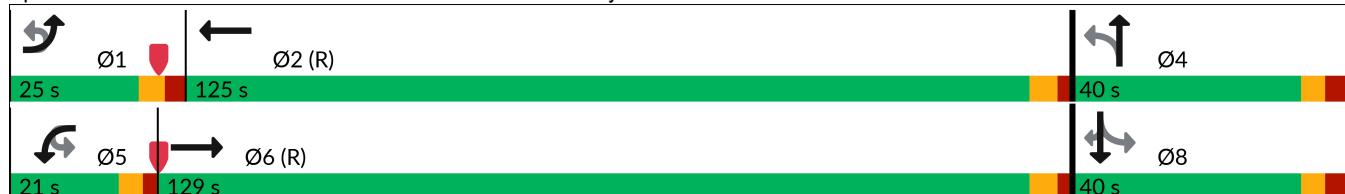
Intersection LOS: B

Intersection Capacity Utilization 56.6%

ICU Level of Service B

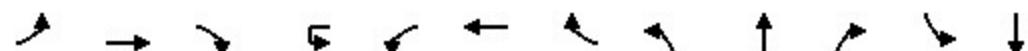
Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard





Lane Group	SBR
Total Delay (s/veh)	12.2
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	68
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	413
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.39
<hr/> <b>Intersection Summary</b>	



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑↑↑			↑	↑↑↑	↑		↓			↓
Traffic Volume (veh/h)	46	1964	0	4	1	1065	46	2	0	1	135	0
Future Volume (veh/h)	46	1964	0	4	1	1065	46	2	0	1	135	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1796	1826	1900		1876	1743	1802	1135	1876	1862	1847	1876
Adj Flow Rate, veh/h	52	2207	0		1	1197	0	2	0	1	152	0
Peak Hour Factor	0.89	0.89	0.89		0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	5	0		0	9	5	50	0	1	2	0
Cap, veh/h	82	3974	0		21	3597		176	6	75	222	0
Arrive On Green	0.10	1.00	0.00		0.01	0.76	0.00	0.13	0.00	0.12	0.13	0.00
Sat Flow, veh/h	1711	5149	0		1787	4759	1527	1117	48	582	1425	0
Grp Volume(v), veh/h	52	2207	0		1	1197	0	3	0	0	152	0
Grp Sat Flow(s), veh/h/ln	1711	1662	0		1787	1586	1527	1747	0	0	1425	0
Q Serve(g_s), s	5.6	0.0	0.0		0.1	15.6	0.0	0.0	0.0	0.0	19.5	0.0
Cycle Q Clear(g_c), s	5.6	0.0	0.0		0.1	15.6	0.0	0.3	0.0	0.0	19.7	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.67		0.33	1.00	
Lane Grp Cap(c), veh/h	82	3974	0		21	3597		257	0	0	222	0
V/C Ratio(X)	0.63	0.56	0.00		0.05	0.33		0.01	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	185	3974	0		165	3597		341	0	0	303	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00		1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	84.2	0.0	0.0		92.8	7.6	0.0	72.5	0.0	0.0	80.6	0.0
Incr Delay (d2), s/veh	7.8	0.6	0.0		0.9	0.2	0.0	0.0	0.0	0.0	3.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.4	0.0		0.1	9.1	0.0	0.2	0.0	0.0	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.0	0.6	0.0		93.7	7.8	0.0	72.5	0.0	0.0	84.3	0.0
LnGrp LOS	F	A			F	A		E			F	
Approach Vol, veh/h	2259				1198			3			152	
Approach Delay, s/veh	2.7				7.9			72.5			84.3	
Approach LOS	A				A			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+R <sub>c</sub> ), s	13.6	147.2		29.2	5.8	155.1		29.2				
Change Period (Y+R <sub>c</sub> ), s	6.5	5.6		7.1	5.5	5.6		7.1				
Max Green Setting (Gmax), s	18.5	119.4		32.9	15.5	123.4		32.9				
Max Q Clear Time (g_c+l1), s	7.6	17.6		2.3	2.1	2.0		21.7				
Green Ext Time (p_c), s	0.1	11.4		0.0	0.0	50.7		0.3				

**Intersection Summary**

HCM 6th Ctrl Delay, s/veh

7.9

HCM 6th LOS

A

**Notes**

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	142
Future Volume (veh/h)	142
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1802
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.89
Percent Heavy Veh, %	5
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1527
Grp Volume(v), veh/h	0
Grp Sat Flow(s), veh/h/ln	1527
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%), veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

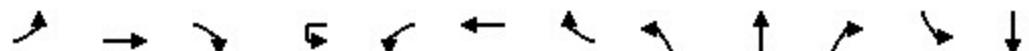
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	121	1384		1	2	1	1843	125	0	1	0	98
Future Volume (vph)	121	1384		1	2	1	1843	125	0	1	0	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)							2%			2%		2%
Storage Length (ft)	400			0		80		240	0		0	0
Storage Lanes	1			0		1		1	0		0	0
Taper Length (ft)	100					25			25			25
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>							0.850					
Flt Protected		0.950					0.950					0.950
Satd. Flow (prot)	1787	5036		0	0	1340	4986	1599	0	940	0	0
Flt Permitted		0.950				0.784						0.757
Satd. Flow (perm)	1787	5036		0	0	1106	4986	1599	0	940	0	0
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)							75					
Link Speed (mph)		35				35			25			25
Link Distance (ft)		187				398			200			373
Travel Time (s)		3.6				7.8			5.5			10.2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	3%	0%	0%	100%	3%	0%	0%	100%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	1489	0	0	3	1982	134	0	1	0	0	105
Turn Type	Prot	NA		custom	Prot	NA	Free		NA		Perm	NA
Protected Phases	1	6			5	2			4			8
Permitted Phases			5			Free	4			8		
Detector Phase	1	6		5	5	2		4	4		8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0		10.0	10.0		5.0	5.0
Minimum Split (s)	11.5	10.6		10.5	10.5	51.6		17.1	17.1		40.0	40.0
Total Split (s)	30.0	157.0		25.0	25.0	152.0		38.0	38.0		38.0	38.0
Total Split (%)	13.6%	71.4%		11.4%	11.4%	69.1%		17.3%	17.3%		17.3%	17.3%
Maximum Green (s)	23.5	151.4		19.5	19.5	146.4		30.9	30.9		30.9	30.9
Yellow Time (s)	3.5	4.1		3.5	3.5	4.1		3.5	3.5		3.5	3.5
All-Red Time (s)	3.0	1.5		2.0	2.0	1.5		3.6	3.6		3.6	3.6
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0			-2.5			-2.5	
Total Lost Time (s)	4.5	3.6		3.5	3.6			4.6			4.6	
Lead/Lag	Lead	Lag		Lead	Lead	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	4.0		3.0	3.0	4.0		3.0	3.0		3.0	3.0
Recall Mode	None	C-Max		None	None	C-Max		None	None		None	None
Walk Time (s)							8.0				7.0	7.0
Flash Don't Walk (s)							33.0				23.0	23.0
Pedestrian Calls (#/hr)						5				5	5	
Act Effct Green (s)	22.5	183.2			11.2	160.4	220.0		24.4			24.4
Actuated g/C Ratio	0.10	0.83			0.05	0.73	1.00		0.11			0.11
v/c Ratio	0.71	0.36			0.05	0.55	0.08		0.01			0.68
Control Delay (s/veh)	123.6	5.7		98.0	14.9	0.1		82.0			114.7	
Queue Delay	0.0	0.1		0.0	0.0	0.0		0.0			0.0	

Lane Group	SBR
Lane Configurations	1
Traffic Volume (vph)	107
Future Volume (vph)	107
Ideal Flow (vphpl)	1900
Grade (%)	
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Fr <sub>t</sub>	0.850
Flt Protected	
Satd. Flow (prot)	1552
Flt Permitted	
Satd. Flow (perm)	1552
Right Turn on Red	Yes
Satd. Flow (RTOR)	115
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.93
Heavy Vehicles (%)	3%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	115
Turn Type	Perm
Protected Phases	
Permitted Phases	8
Detector Phase	8
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	40.0
Total Split (s)	38.0
Total Split (%)	17.3%
Maximum Green (s)	30.9
Yellow Time (s)	3.5
All-Red Time (s)	3.6
Lost Time Adjust (s)	-2.5
Total Lost Time (s)	4.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Don't Walk (s)	23.0
Pedestrian Calls (#/hr)	5
Act Effect Green (s)	24.4
Actuated g/C Ratio	0.11
v/c Ratio	0.42
Control Delay (s/veh)	16.2
Queue Delay	0.0

3486 22-02730

Build - PM

40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Total Delay (s/veh)	123.6	5.8			98.0	14.9	0.1		82.0			114.7
LOS	F	A			F	B	A		F			F
Approach Delay (s/veh)		15.3				14.1			82.0			63.2
Approach LOS		B				B			F			E
Queue Length 50th (ft)	186	214			4	455	0		1			150
Queue Length 95th (ft)	255	15			19	580	0		9			221
Internal Link Dist (ft)		107				318			120			293
Turn Bay Length (ft)	400				80		240					
Base Capacity (vph)	209	4193			108	3635	1599		142			211
Starvation Cap Reductn	0	1169			0	0	0		0			0
Spillback Cap Reductn	0	0			0	0	0		0			0
Storage Cap Reductn	0	0			0	0	0		0			0
Reduced v/c Ratio	0.62	0.49			0.03	0.55	0.08		0.01			0.50

**Intersection Summary**

Area Type: Other

Cycle Length: 220

Actuated Cycle Length: 220

Offset: 171 (78%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 17.3

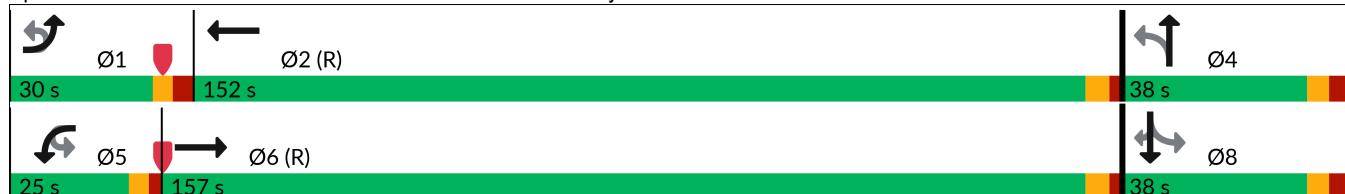
Intersection LOS: B

Intersection Capacity Utilization 72.0%

ICU Level of Service C

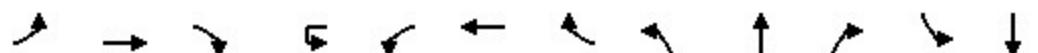
Analysis Period (min) 15

Splits and Phases: 40: Fire Station #33/Fair Woods Parkway &amp; Fairfax Boulevard





Lane Group	SBR
Total Delay (s/veh)	16.2
LOS	B
Approach Delay (s/veh)	
Approach LOS	
Queue Length 50th (ft)	0
Queue Length 95th (ft)	68
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	333
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.35
<hr/> <b>Intersection Summary</b>	



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑↑↑			↑	↑↑	↑		↓			↓
Traffic Volume (veh/h)	121	1384	1	2	1	1843	125	0	1	0	98	0
Future Volume (veh/h)	121	1384	1	2	1	1843	125	0	1	0	98	0
Initial Q (Q <sub>b</sub> ), veh	0	0	0		0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00		1.00		1.00	1.00		1.00	1.00	
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
Work Zone On Approach		No				No			No		No	
Adj Sat Flow, veh/h/ln	1885	1856	1900		394	1832	1876	1876	394	1876	1847	1876
Adj Flow Rate, veh/h	130	1488	1		1	1982	0	0	1	0	105	0
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	3	0		100	3	0	0	100	0	2	0
Cap, veh/h	159	4395	3		4	3790		0	38	0	166	0
Arrive On Green	0.18	1.00	1.00		0.01	0.76	0.00	0.00	0.10	0.00	0.10	0.00
Sat Flow, veh/h	1795	5228	4		376	5001	1590	0	394	0	1387	0
Grp Volume(v), veh/h	130	961	528		1	1982	0	0	1	0	105	0
Grp Sat Flow(s), veh/h/ln	1795	1689	1855		376	1667	1590	0	394	0	1387	0
Q Serve(g_s), s	15.3	0.0	0.0		0.6	35.0	0.0	0.0	0.5	0.0	15.9	0.0
Cycle Q Clear(g_c), s	15.3	0.0	0.0		0.6	35.0	0.0	0.0	0.5	0.0	16.4	0.0
Prop In Lane	1.00		0.00		1.00		1.00	0.00		0.00	1.00	
Lane Grp Cap(c), veh/h	159	2838	1559		4	3790		0	38	0	166	0
V/C Ratio(X)	0.82	0.34	0.34		0.26	0.52		0.00	0.03	0.00	0.63	0.00
Avail Cap(c_a), veh/h	208	2838	1559		37	3790		0	60	0	245	0
HCM Platoon Ratio	2.00	2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00		1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	88.8	0.0	0.0		108.0	10.7	0.0	0.0	90.1	0.0	97.6	0.0
Incr Delay (d2), s/veh	17.2	0.3	0.6		31.1	0.5	0.0	0.0	0.3	0.0	4.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	11.9	0.2	0.5		0.2	18.9	0.0	0.0	0.1	0.0	10.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	106.0	0.3	0.6		139.1	11.2	0.0	0.0	90.4	0.0	101.6	0.0
LnGrp LOS	F	A	A		F	B			F		F	
Approach Vol, veh/h		1619				1983			1		105	
Approach Delay, s/veh		8.9				11.3			90.4		101.6	
Approach LOS		A				B			F		F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.0	170.3		25.7	5.8	188.5		25.7				
Change Period (Y+Rc), s	6.5	5.6		7.1	5.5	5.6		7.1				
Max Green Setting (Gmax), s	23.5	146.4		30.9	19.5	151.4		30.9				
Max Q Clear Time (g_c+l1), s	17.3	37.0		2.5	2.6	2.0		18.4				
Green Ext Time (p_c), s	0.2	31.0		0.0	0.0	18.4		0.2				

**Intersection Summary**

HCM 6th Ctrl Delay, s/veh

12.8

HCM 6th LOS

B

**Notes**

User approved ignoring U-Turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	SBR
Lane Configurations	1
Traffic Volume (veh/h)	107
Future Volume (veh/h)	107
Initial Q (Q <sub>b</sub> ), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1832
Adj Flow Rate, veh/h	0
Peak Hour Factor	0.93
Percent Heavy Veh, %	3
Cap, veh/h	
Arrive On Green	0.00
Sat Flow, veh/h	1553
Grp Volume(v), veh/h	0
Grp Sat Flow(s), veh/h/ln	1553
Q Serve(g_s), s	0.0
Cycle Q Clear(g_c), s	0.0
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	
V/C Ratio(X)	
Avail Cap(c_a), veh/h	
HCM Platoon Ratio	1.00
Upstream Filter(l)	0.00
Uniform Delay (d), s/veh	0.0
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(95%), veh/ln	0.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	0.0
LnGrp LOS	
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

## Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	5	4	0	0	12	75	3	2	254	4
Future Vol, veh/h	0	0	5	4	0	0	12	75	3	2	254	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	3	0
Mvmt Flow	0	0	5	4	0	0	13	82	3	2	279	4

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	395	396	281	398	397	84	283	0	0	85	0	0
Stage 1	285	285	-	110	110	-	-	-	-	-	-	-
Stage 2	110	111	-	288	287	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.6	6.3	5.7	5.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	648	621	799	618	594	990	1291	-	-	1524	-	-
Stage 1	799	747	-	922	828	-	-	-	-	-	-	-
Stage 2	934	838	-	772	723	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	642	613	799	607	586	990	1291	-	-	1524	-	-
Mov Cap-2 Maneuver	642	613	-	607	586	-	-	-	-	-	-	-
Stage 1	790	746	-	912	819	-	-	-	-	-	-	-
Stage 2	924	829	-	765	722	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s/v	9.5	11			1			0.1		
HCM LOS	A	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1291	-	-	799	607	1524	-	-		
HCM Lane V/C Ratio	0.01	-	-	0.007	0.007	0.001	-	-		
HCM Control Delay (s/veh)	7.8	0	-	9.5	11	7.4	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q (veh)	0	-	-	0	0	0	-	-		

## Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	8	2	16	28	0	8	12	205	25	8	150	6
Future Vol, veh/h	8	2	16	28	0	8	12	205	25	8	150	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	0	0	6	0	0	0	8	1	0	0	2	0
Mvmt Flow	8	2	16	28	0	8	12	207	25	8	152	6

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	419	427	155	424	418	220	158	0	0	232	0	0
Stage 1	171	171	-	244	244	-	-	-	-	-	-	-
Stage 2	248	256	-	180	174	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.66	6.3	5.7	5.8	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	630	603	903	598	580	845	1386	-	-	1348	-	-
Stage 1	885	806	-	807	747	-	-	-	-	-	-	-
Stage 2	826	762	-	860	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	616	593	903	578	570	845	1386	-	-	1348	-	-
Mov Cap-2 Maneuver	616	593	-	578	570	-	-	-	-	-	-	-
Stage 1	876	800	-	799	740	-	-	-	-	-	-	-
Stage 2	810	754	-	837	783	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.9	11.1	0.4	0.4
HCM LOS	A	B		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1386	-	-	763 622 1348
HCM Lane V/C Ratio	0.009	-	-	0.034 0.058 0.006
HCM Control Delay (s/veh)	7.6	0	-	9.9 11.1 7.7 0
HCM Lane LOS	A	A	-	A B A A
HCM 95th %tile Q (veh)	0	-	-	0.1 0.2 0 -

## Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	5	4	0	0	12	77	3	2	259	4
Future Vol, veh/h	0	0	5	4	0	0	12	77	3	2	259	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	3	0
Mvmt Flow	0	0	5	4	0	0	13	85	3	2	285	4

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	404	405	287	407	406	87	289	0	0	88	0	0
Stage 1	291	291	-	113	113	-	-	-	-	-	-	-
Stage 2	113	114	-	294	293	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.6	6.3	5.7	5.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	641	616	794	611	588	987	1284	-	-	1520	-	-
Stage 1	795	744	-	920	826	-	-	-	-	-	-	-
Stage 2	931	836	-	767	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	635	608	794	601	580	987	1284	-	-	1520	-	-
Mov Cap-2 Maneuver	635	608	-	601	580	-	-	-	-	-	-	-
Stage 1	786	743	-	910	817	-	-	-	-	-	-	-
Stage 2	921	827	-	760	718	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s/v	9.6	11			1			0.1		
HCM LOS	A	B								
<b>Minor Lane/Major Mvmt</b>										
Capacity (veh/h)	1284	-	-	794	601	1520	-	-		
HCM Lane V/C Ratio	0.01	-	-	0.007	0.007	0.001	-	-		
HCM Control Delay (s/veh)	7.8	0	-	9.6	11	7.4	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q (veh)	0	-	-	0	0	0	-	-		

## Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	8	2	16	29	0	8	12	209	26	8	153	6
Future Vol, veh/h	8	2	16	29	0	8	12	209	26	8	153	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	0	0	6	0	0	0	8	1	0	0	2	0
Mvmt Flow	8	2	16	29	0	8	12	211	26	8	155	6

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	426	435	158	431	425	224	161	0	0	237	0	0
Stage 1	174	174	-	248	248	-	-	-	-	-	-	-
Stage 2	252	261	-	183	177	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.66	6.3	5.7	5.8	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	625	598	900	592	576	841	1382	-	-	1342	-	-
Stage 1	882	804	-	803	745	-	-	-	-	-	-	-
Stage 2	823	759	-	858	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	611	588	900	572	566	841	1382	-	-	1342	-	-
Mov Cap-2 Maneuver	611	588	-	572	566	-	-	-	-	-	-	-
Stage 1	873	798	-	795	738	-	-	-	-	-	-	-
Stage 2	807	751	-	835	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.9	11.2	0.4	0.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1382	-	-	759	614	1342	-	-
HCM Lane V/C Ratio	0.009	-	-	0.035	0.061	0.006	-	-
HCM Control Delay (s/veh)	7.6	0	-	9.9	11.2	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q (veh)	0	-	-	0.1	0.2	0	-	-

## Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	5	0	14	4	0	0	12	77	3	2	259	9
Future Vol, veh/h	5	0	14	4	0	0	12	77	3	2	259	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	3	0
Mvmt Flow	5	0	15	4	0	0	13	85	3	2	285	10

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	407	408	290	415	412	87	295	0	0	88	0	0
Stage 1	294	294	-	113	113	-	-	-	-	-	-	-
Stage 2	113	114	-	302	299	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.6	6.3	5.7	5.8	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	639	614	791	605	584	987	1278	-	-	1520	-	-
Stage 1	793	743	-	920	826	-	-	-	-	-	-	-
Stage 2	931	836	-	761	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	633	606	791	587	576	987	1278	-	-	1520	-	-
Mov Cap-2 Maneuver	633	606	-	587	576	-	-	-	-	-	-	-
Stage 1	784	742	-	910	817	-	-	-	-	-	-	-
Stage 2	921	827	-	745	715	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s/v	10	11.2			1			0.1		
HCM LOS	B	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1278	-	-	742	587	1520	-	-		
HCM Lane V/C Ratio	0.01	-	-	0.028	0.007	0.001	-	-		
HCM Control Delay (s/veh)	7.8	0	-	10	11.2	7.4	0	-		
HCM Lane LOS	A	A	-	B	B	A	A	-		
HCM 95th %tile Q (veh)	0	-	-	0.1	0	0	-	-		

**Intersection**

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	11	2	23	29	0	8	12	209	26	8	153	10
Future Vol, veh/h	11	2	23	29	0	8	12	209	26	8	153	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-6	-	-	-4	-	-	-2	-	-	4	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	0	0	6	0	0	0	8	1	0	0	2	0
Mvmt Flow	11	2	23	29	0	8	12	211	26	8	155	10

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	428	437	160	437	429	224	165	0	0	237	0	0
Stage 1	176	176	-	248	248	-	-	-	-	-	-	-
Stage 2	252	261	-	189	181	-	-	-	-	-	-	-
Critical Hdwy	5.9	5.3	5.66	6.3	5.7	5.8	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	4.9	4.3	-	5.3	4.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	623	597	898	588	574	841	1378	-	-	1342	-	-
Stage 1	881	803	-	803	745	-	-	-	-	-	-	-
Stage 2	823	759	-	852	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	609	587	898	564	564	841	1378	-	-	1342	-	-
Mov Cap-2 Maneuver	609	587	-	564	564	-	-	-	-	-	-	-
Stage 1	872	797	-	795	738	-	-	-	-	-	-	-
Stage 2	807	751	-	822	779	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s/v	9.9	11.3			0.4			0.4		
HCM LOS	A	B								
<b>Minor Lane/Major Mvmt</b>										
Capacity (veh/h)	1378	-	-	765	607	1342	-	-		
HCM Lane V/C Ratio	0.009	-	-	0.048	0.062	0.006	-	-		
HCM Control Delay (s/veh)	7.6	0	-	9.9	11.3	7.7	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q (veh)	0	-	-	0.1	0.2	0	-	-		

**Appendix D**  
**Scope of Work Meeting Form**



## PRE-SCOPE OF WORK MEETING FORM

### Information on the Project Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

#### Contact Information

Consultant Name: Tele: E-mail:	Kevin Savage, PE, PTOE - Dynamic Traffic, LLC (445) 202-5400 ksavage@dynamictraffic.com
Developer/Owner Name: Tele: E-mail:	David Panella - ABTB Mid-Atlantic, LLC (860) 424-6104 dpanella@southpaw.co

#### Project Information

Project Name:	Proposed Taco Bell - 10120 Fairfax Blvd		Locality/County:	City of Fairfax
Project Location: (Attach regional and site specific location map)	The subject site is located within the Boulevard Marketplace, along the westbound side of Fairfax Boulevard (US Route 50)			
Submission Type	Comp Plan <input type="checkbox"/>	Rezoning <input checked="" type="checkbox"/>	Site Plan <input checked="" type="checkbox"/>	Subd Plat <input type="checkbox"/>
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	It is proposed to construct a 2,256 SF Taco Bell with Drive-Thru on a parcel of land that was previously approved for the construction of a retail building and separately, a bank with drive-thru. Access to the site is currently provided via one full movement and two right turn in/right turn out driveways along Fairfax Boulevard (US Route 50) and one full movement driveway along Plantation Parkway. No changes are proposed to the existing access points.			
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential <input type="checkbox"/>	Commercial <input checked="" type="checkbox"/>	Mixed Use <input type="checkbox"/>	Other <input type="checkbox"/>
	<b>Residential Uses(s)</b> Number of Units: _____ ITE LU Code(s): _____ _____		2,256 SF _____	
	<b>Commercial Use(s)</b> ITE LU Code(s): 934 _____		<b>Other Use(s)</b> ITE LU Code(s): _____ Independent Variable(s): _____ _____	
	Square Ft or Other Variable: _____			
Total Peak Hour Trip Projection:	Less than 100 <input type="checkbox"/>	100 – 499 <input checked="" type="checkbox"/>	500 – 999 <input type="checkbox"/>	1,000 or more <input type="checkbox"/>

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

## Traffic Impact Analysis Assumptions

Study Period	Existing Year: 2023	Build-out Year: 2025	Design Year: N/A
Study Area Boundaries (Attach map)	North: N/A		South: Fairfax Boulevard (US Route 50)
	East: Fair Woods Parkway		West: Boulevard Marketplace Signalized Driveway
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	No planned roadway improvements have been identified within the study area. The George Snyder Trail Project is proposed along the rear of the parcel, extending the existing trail to the west.		
Consistency With Comprehensive Plan (Land use, transportation plan)	The proposed use is permitted within the CR - Commercial Retail Zoning District.		
Available Traffic Data (Historical, forecasts)	AADT for Fairfax Boulevard (US Route 50) is 37000 per VDOT Traffic Data. (41000 AADT on weekdays)		
Trip Distribution (Attach sketch)	Road Name: To be determined based on existing traffic counts/travel patterns	Road Name:	
	Road Name:	Road Name:	
Annual Vehicle Trip Growth Rate:	1%	Peak Period for Study (check all that apply)	<input checked="" type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> SAT
		Peak Hour of the Generator	Peak Street Hour
Study Intersections and/or Road Segments (Attach additional sheets as necessary)	1.Fairfax Boulevard & Boulevard Marketplace	6.	
	2.Fairfax Boulevard & Central Right Turn In/Right Turn Out Driveway	7.	
	3.Fairfax Boulevard & Eastern Right Turn In/Right Turn Out Driveway	8.	
	4.Fairfax Boulevard & Fair Woods Parkway	9.	
	5.Fair Woods Parkway & Full Movement Driveway	10.	
	Trip Adjustment Factors	Internal allowance: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Reduction: _____ % trips	Pass-by allowance: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Reduction: _____ % trips
Software Methodology	<input checked="" type="checkbox"/> Synchro <input type="checkbox"/> HCS (v.2000/+) <input type="checkbox"/> aaSIDRA <input type="checkbox"/> CORSIM <input type="checkbox"/> Other _____		
Traffic Signal Proposed or Affected (Analysis software to be used,	Fairfax Boulevard & Boulevard Marketplace; Fairfax Boulevard & Fair Woods Parkway		

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

progression speed, cycle length)	
Improvement(s) Assumed or to be Considered	N/A
Background Traffic Studies Considered	Traffic from the WillowWood & Northfax Developments to be incorporated into the Background Traffic Growth for No Build conditions. Note that a TIS has not yet been prepared for the WillowWood development, so trip generation estimates will be prepared based upon the proposed development program.
Plan Submission	<input type="checkbox"/> Master Development Plan (MDP) <input checked="" type="checkbox"/> Generalized Development Plan (GDP) <input type="checkbox"/> Preliminary/Sketch Plan <input type="checkbox"/> Other Plan type (Final Site, Subd. Plan)
Additional Issues to be Addressed	<input checked="" type="checkbox"/> Queuing analysis <input type="checkbox"/> Actuation/Coordination <input type="checkbox"/> Weaving analysis <input type="checkbox"/> Merge analysis <input type="checkbox"/> Bike/Ped Accommodations <input checked="" type="checkbox"/> Intersection(s) <input type="checkbox"/> TDM Measures <input type="checkbox"/> Other _____

#### NOTES on ASSUMPTIONS:

1. Manual Turning Movement Counts will be conducted during the weekday morning (6:00 to 9:00 AM) and weekday evening (4:00 to 7:00 PM) peak hours during a typical weekday at the following intersections:
  - a. Fairfax Boulevard (US Route 50) & Boulevard Marketplace
  - b. Fairfax Boulevard (US Route 50) & Central Right Turn In/Right Turn Out Driveway
  - c. Fairfax Boulevard (US Route 50) & Eastern Right Turn In/Right Turn Out Driveway
  - d. Fairfax Boulevard (US Route 50) & Fair Woods Parkway
  - e. Fair Woods Parkway & Full Movement Driveway
  
2. Synchro files will be provided by the City of Fairfax.

SIGNED: Kevin Savage DATE: 5/16/2023  
 Applicant or Consultant

PRINT NAME: Kevin Savage  
 Applicant or Consultant

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.