V AT VININGS

Development of Regional Impact # 1625

COBB COUNTY, GA

TRAFFIC IMPACT STUDY

Prepared for:

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November 6, 2007

A&R Project No: 07-012

EXECUTIVE SUMMARY

The purpose of this study is to determine the traffic impact that will result from the V at Vinings development proposed to the north of the intersection of Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway in Cobb County, Georgia. The development is proposed to consist of 600,800 s.f. of office space, 78,000 s.f. of retail space, 150 senior adult housing units and 300 residential condominium units. The traffic analysis evaluated the following scenarios: existing conditions, the year 2014 without additional traffic generated by the site, and the year 2014 with the traffic generated by the development.

From the existing condition analysis it was found that one of the intersections within the study area is currently not operating at the required LOS standard of D. Analysis of the Base Year 2014 revealed that five of the study intersections being analyzed will not meet the required LOS standard.

The Future 2014 traffic including the site-generated traffic was then evaluated using existing lane geometry. Six study network intersections will not meet the required LOS standard after the project is completed if no roadway improvements are implemented. Improvements were recommended to restore these intersections back to the LOS standard. Additionally, recommendations to allow the site accesses to operate satisfactorily were identified. Details can be found in the site access analysis section of the report.

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1. PROJECT DESCRIPTION

The purpose of this study is to determine the traffic impact that will result from the V at Vinings development proposed to the north of the intersection of Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway in Cobb County, Georgia. The development is proposed to consist of 600,800 s.f. of office space, 78,000 s.f. of retail space, 150 senior adult housing units and 300 residential condominium units. The existing Paces West Commercial Driveway along Paces Ferry Road will provide access to the proposed development. In addition, the site proposes three full access site driveways along Bert Adams Road. Two of the full access driveways along Bert Adams Road will align across from existing Cumberland Office Park Driveways. A location map for the site is shown in Figure 1.

1.1 Site Plan

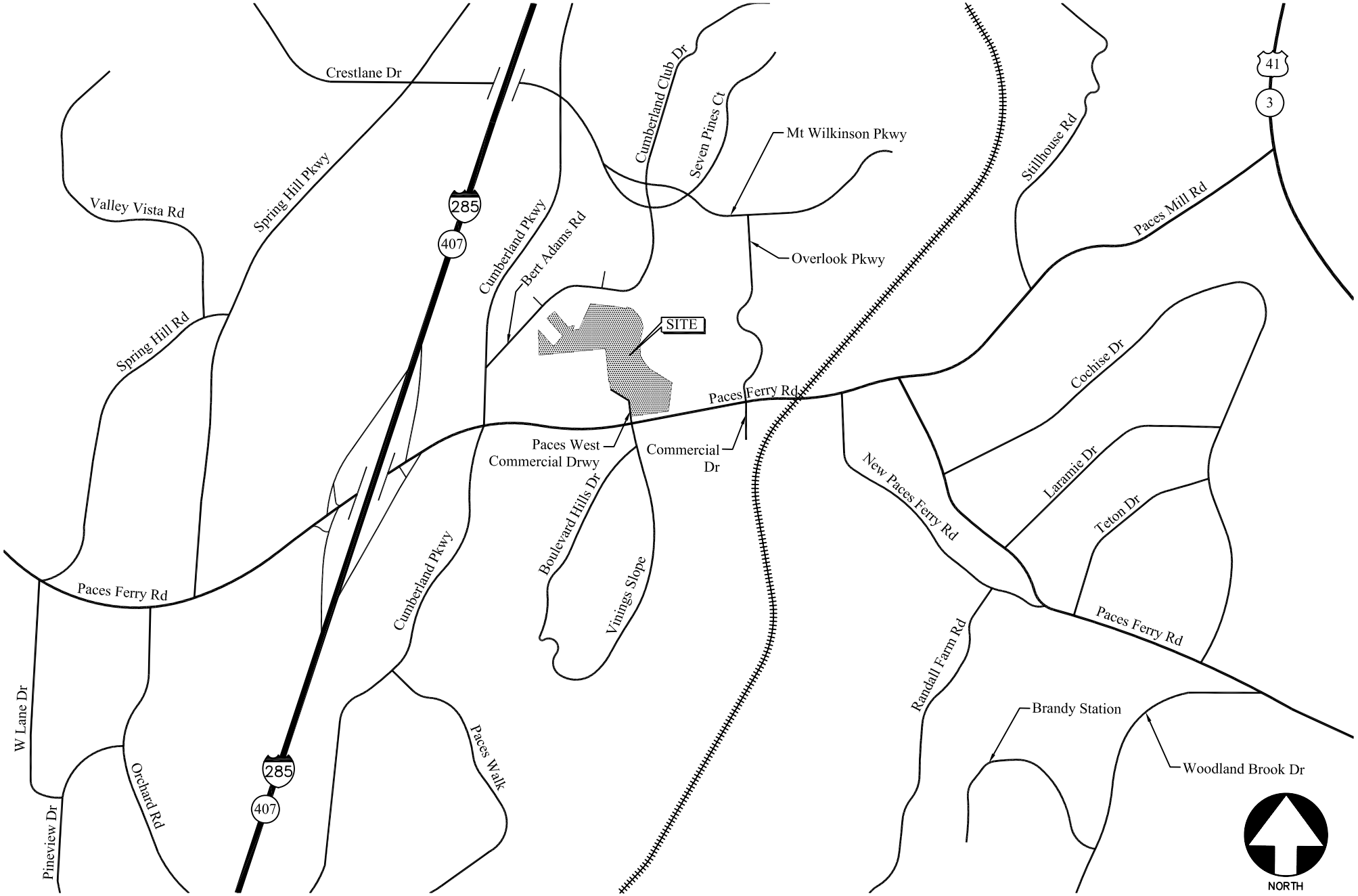
A site plan for this project is shown in Figure 2. A larger size drawing and a digital copy of the site plan are also provided with this report.

1.2 Consistency with Adopted Comprehensive County Plan

The existing zoning is O&I and the proposed zoning is RRC, regional retail commercial. The proposed zoning is consistent with the Cobb County future land use plan, which specifies the site as a regional activity center.

1.3 Project Phasing

The project's impacts have been evaluated in one phase, estimated for completion in the year 2014. This study will evaluate the traffic operations in the vicinity of the site for existing conditions year 2007, the year 2014 without additional traffic generated by the site, and the year 2014 with the additional traffic generated by the development.



LOCATION MAP

FIGURE 1

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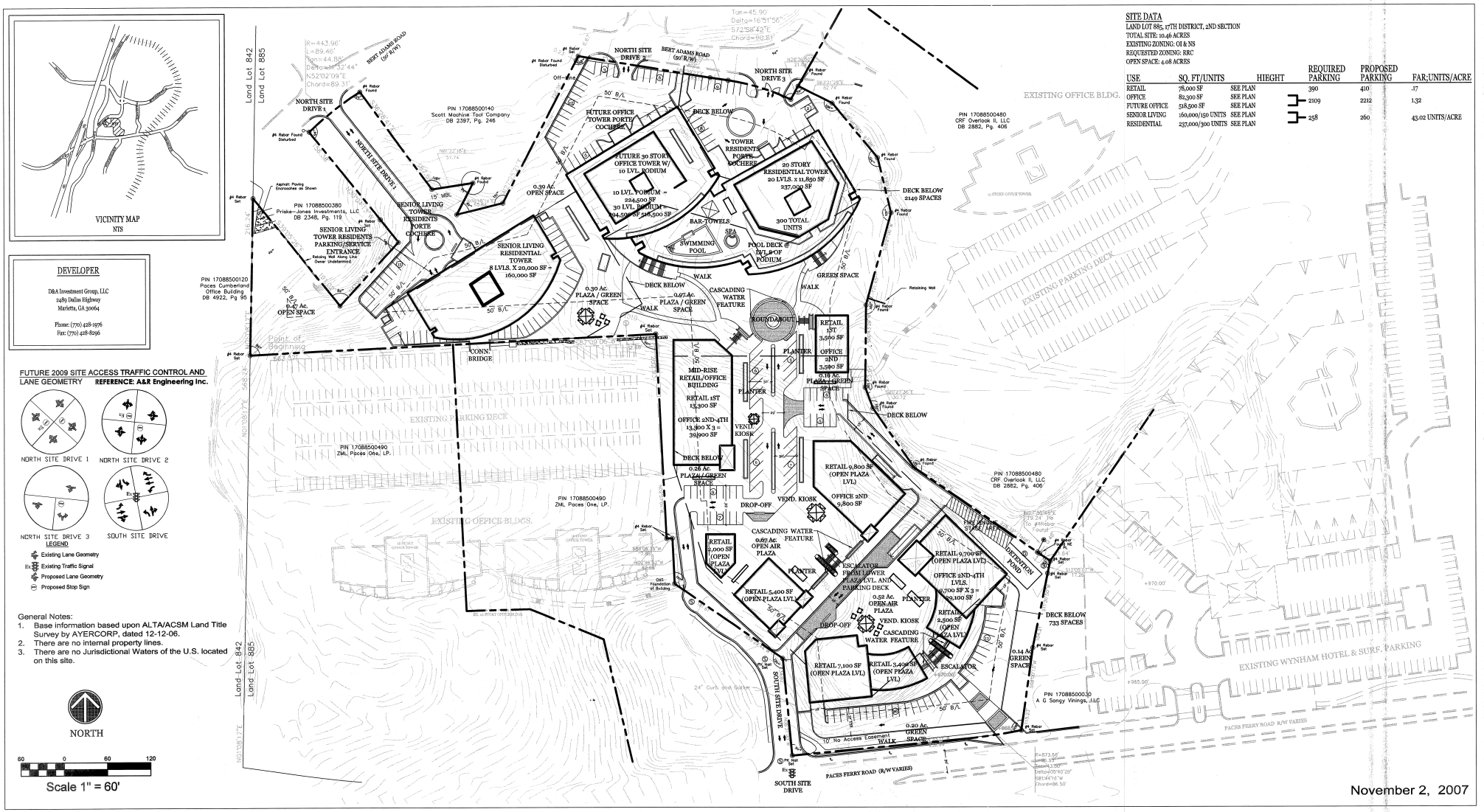

Preliminary Plan

V at VININGS

MIXED USE DEVELOPMENT

Cobb County, Georgia

PHILLIPS PARTNERSHIP

GEORGIA REGISTERED LANDSCAPE ARCHITECT No. 1025 STEVEN V. FINCH

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2. TRIP GENERATION

Trip generation estimates for the project were based on the rates and equations published in the 7th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. The ITE Trip Generation report contains traffic volume count data collected at similar facilities nationwide. The proposed development will consist of 600,800 s.f. of office space, 78,000 s.f. of retail space, 150 senior adult housing units and 300 residential condominium units. Trip generation calculations for the V at Vinings development are shown in Table 1.

TABLE 1
TRIP GENERATION

Land Use	Total Size	A.M. Peak Hour			P.M. Peak Hour			24-Hour
		Enter	Exit	Total	Enter	Exit	Total	2-way
820 - Shopping Center	78,000 s.f.	82	53	135	255	276	531	5,778
710 - General Office	600,800 s.f.	693	94	787	128	624	752	5,306
230 - Residential Condominium Townhouse	300 units	21	103	124	99	49	148	1,633
252- Senior Adult Housing	150 units	5	7	12	10	7	17	522
Total		**801**	**257**	**1,058**	**492**	**956**	**1,448**	**13,240**

2.1 Net Trip Ends

Due to the nature of the development mixed-use and pass-by reductions were applied. Pass-by reductions have been taken for only the PM peak hour based on the equations published in ITE Trip Generation Handbook. Trip Generation with the applied reductions is shown in the Table 2. In addition to these reductions, as per the GRTA LOU, 2% transit reduction has also been applied since the area is served by Cobb Community Transit.

TABLE 2
TRIP GENERATION WITH REDUCTIONS

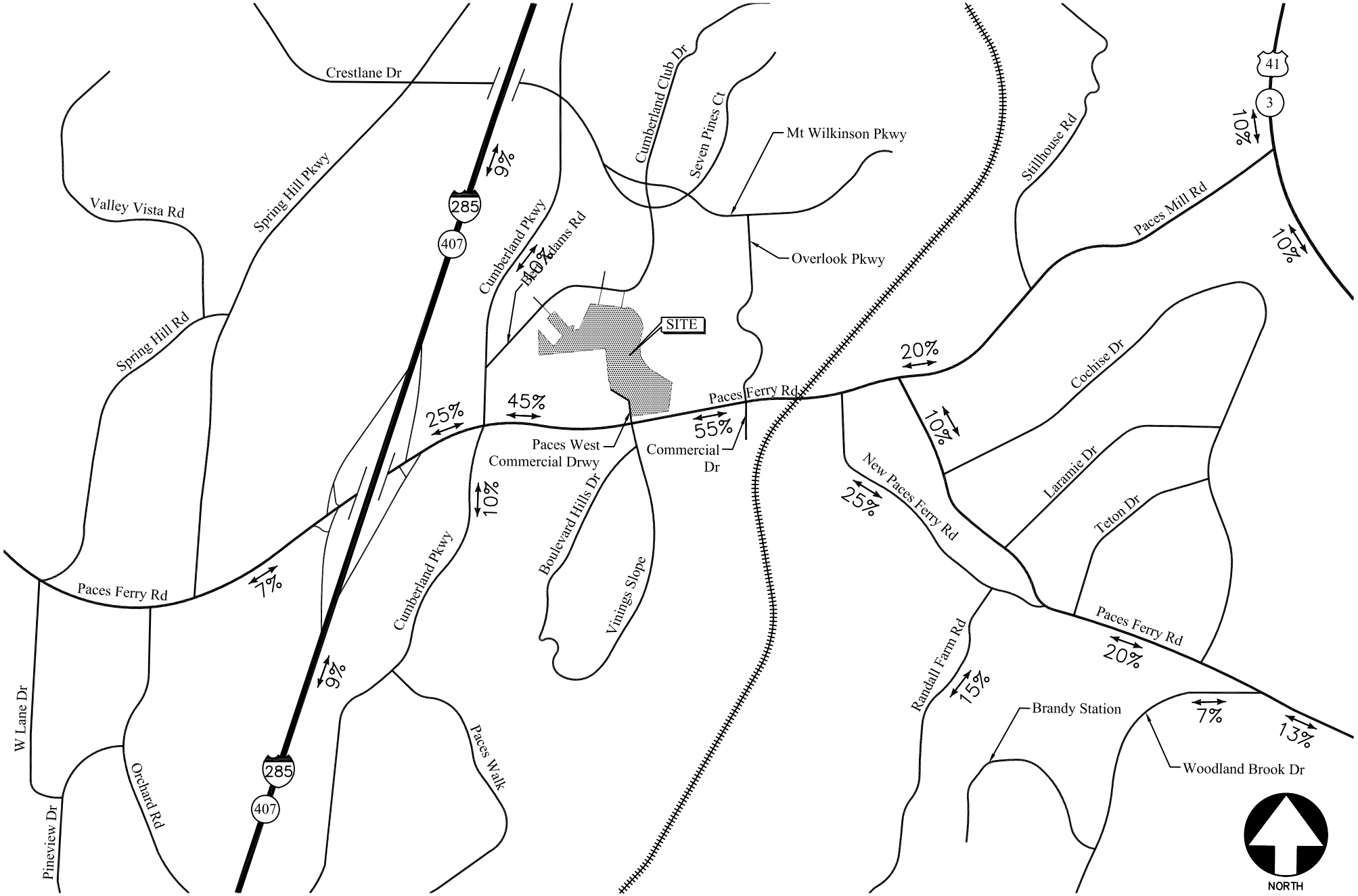
Land Use	A.M. Peak Hour			P.M. Peak Hour			24-Hour
	Enter	Exit	Total	Enter	Exit	Total	2-way
Shopping Center	82	53	135	255	276	531	5,778
- Mixed-Use Reduction	*-2*	*-4*	*-6*	*-28*	*-41*	*-69*	*-780*
*- Pass-By Reduction 0% (42%)**	*0*	*0*	*0*	*-95*	*-98*	*-193*	*-1,932***
General Office	693	94	787	128	624	752	5,306
- Mixed-Use Reduction	*-1*	*-1*	*-2*	*-8*	*-7*	*-15*	*-235*
Residential	26	110	136	109	56	165	2,155
- Mixed-Use Reduction	*-3*	*-1*	*-4*	*-35*	*-23*	*-58*	*-610*
- CCT Transit Reduction 2%	*-16*	*-5*	*-21*	*-7*	*-16*	*-23*	*-193*
Total without reductions	**801**	**257**	**1,058**	**492**	**956**	**1,448**	**13,240**
Total with reductions	**779**	**246**	**1,025**	**320**	**771**	**1,091**	**9,489**

* AM Pass-by % (PM Pass-by %)

** The 24 hour pass by reduction has been calculated by assuming the total PM peak hour pass by trip reduction is 10% of the total daily pass-by reduction.

3. TRIP DISTRIBUTION & ASSIGNMENT

The trip distribution is the percentage of the traffic generated by the site that travels to and from the site on each segment of the surrounding roadway network. Separate trip distributions were developed for the retail site traffic and the residential & office site traffic. The retail trip distribution, shown in Figure 3, was estimated based on the residential concentrations and the location of major roadways and highways that will serve the development. The residential & office distribution, shown in Figure 4, were estimated based on major employment centers and the residential concentrations; however, the office distribution is regionally based, while the retail distribution is locally based. The site-generated volumes were then distributed to the surrounding roadway network based on the driver's destination, and the most accessible route.



TRIP DISTRIBUTION - RETAIL

FIGURE 3

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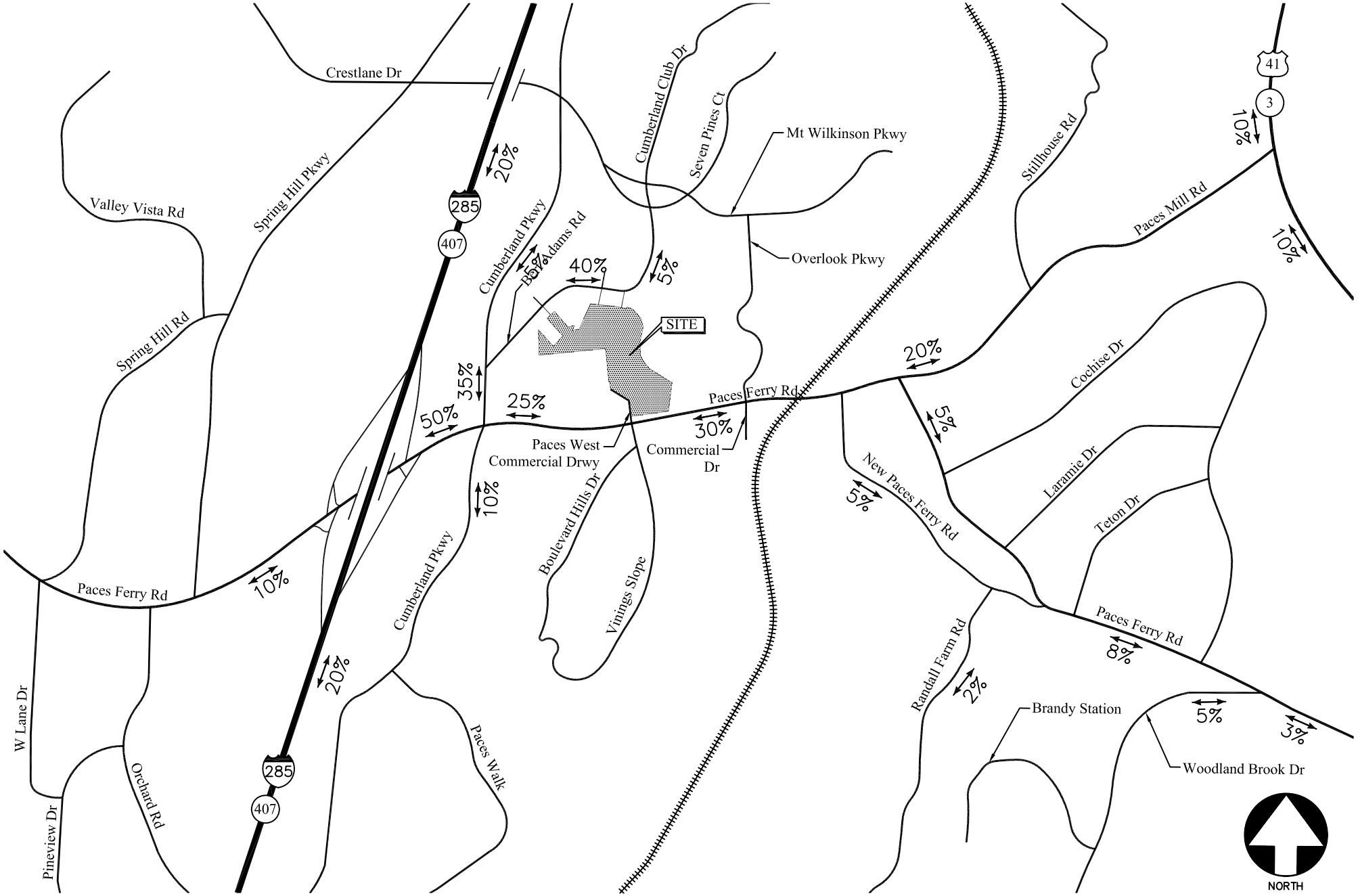


TRIP DISTRIBUTION - RESIDENTIAL AND OFFICE

FIGURE 4

A&R Engineering Inc.

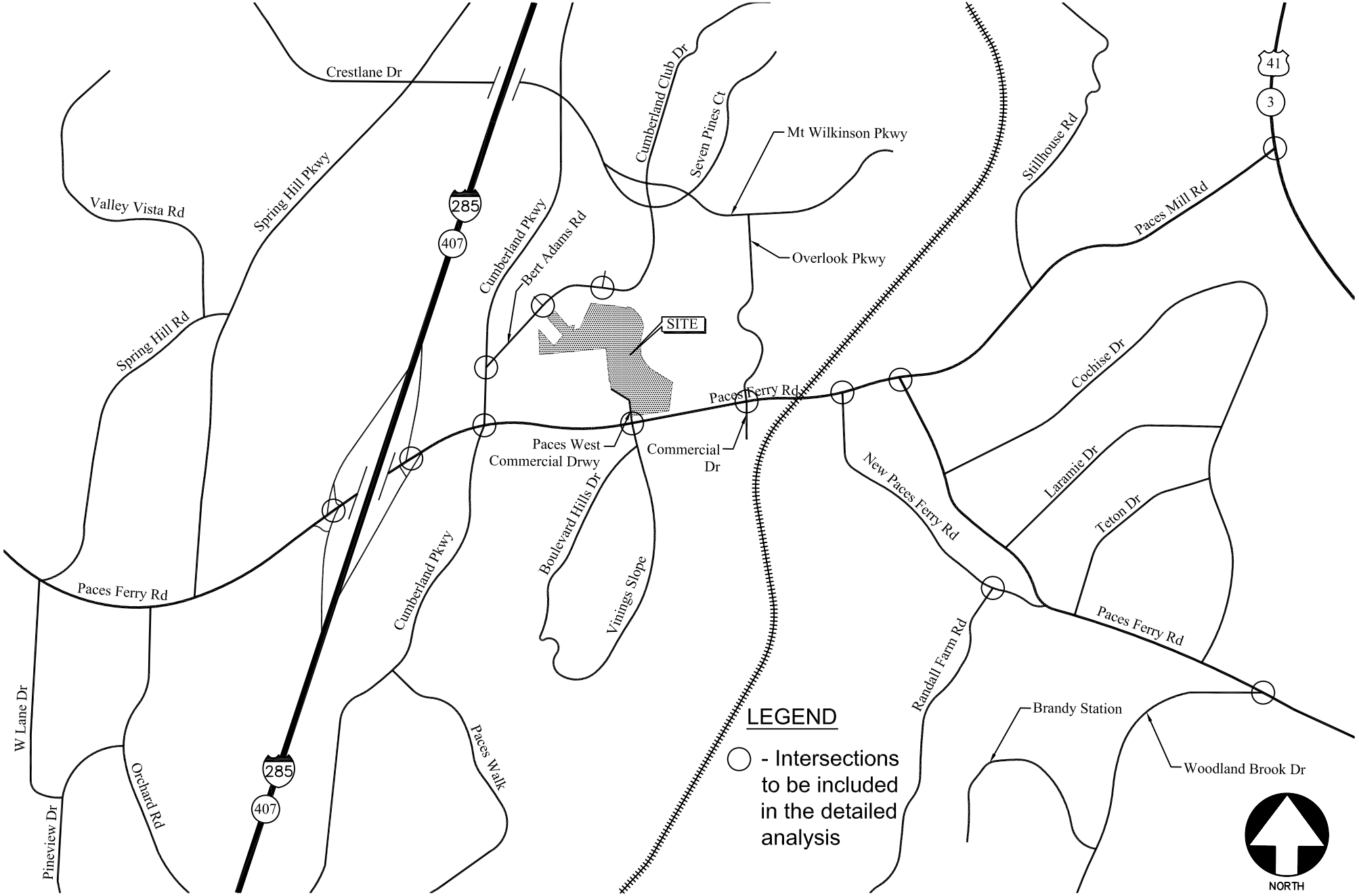
4. STUDY NETWORK DETERMINATION

The study network was determined by evaluating the amount of traffic that the proposed development will add to each roadway segment in the area. According to GRTA requirements, a roadway segment carries a "significant" amount of traffic if the project contributes 7% or more trips to the two-way daily service volumes of the roadway at the appropriate level of service standard. Upon agreement with GRTA a level of service standard of "D" was used for determining the study area network.

The traffic generated by the proposed project was then assigned to the area roadways using the trip distribution to determine the site-generated traffic on each roadway segment. The boundaries of the study network extend to the most distant intersections where at least 7% of the service volumes on the segment are attributed to project traffic. The following intersections fell within the 7% rule and have been included in the traffic study:

1) Paces Ferry Road / I-285 Southbound Ramps
2) Paces Ferry Road / I-285 Northbound Ramps
3) Paces Ferry Road / Cumberland Parkway
4) Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway
5) Paces Ferry Road / Overlook Pkwy
6) Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway
7) Paces Mill Road / US 41 (SR 3) / River Parkway
8) Paces Ferry Road / Paces Mill Road / Mountain Street
9) New Paces Ferry Road / Randall Farm Road
10) Paces Ferry Road / Woodland Brook Drive
11) Cumberland Parkway / Bert Adams Road / Kaiser Permanente Driveway
12) Bert Adams Road / Cumberland Office Park Driveway (western)
13) Bert Adams Road / Cumberland Office Park Driveway (eastern)

The study intersections are shown graphically in Figure 5. Other intersections within this corridor, such as unsignalized side streets, right-in / right-out driveways or private driveways were viewed as insignificant and have not been included in the study network. In addition to the above intersections, a full access driveway along Bert Adams Road has been included in the analysis during the A.M. and P.M peak hours as agreed upon in the methodology meeting.



STUDY NETWORK

FIGURE 5

A&R Engineering Inc.

5. PLANNED & PROGRAMMED IMPROVEMENTS

The following improvements have been identified in the Atlanta Regional Commission's Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP). These improvements are within the vicinity of the proposed development. Additional improvements for Cobb County have been identified, but they are not relevant to this project. Details of the planned programs can be found in the Appendix.

- AR-H-302: I-285 West HOV Lanes from I-20 West in City of Atlanta to I-75 North
    - Includes the addition of 1 HOV lane in both directions for 10 miles.
- CO-231: US 41 (Cobb Parkway) from Paces Mill Road to Akers Mill Road
    - Includes widening of US 41 (Cobb Parkway) from four lanes to six lanes.
- AT-012: US 41 (Northside Parkway) from Paces Mill Road to Mount Paran Road
    - Includes widening of US 41 (Northside Parkway) from four lanes to six lanes.

6. EXISTING CONDITIONS

An inventory was performed of the roadways in the area surrounding the site. The following is a brief description of each of these facilities.

6.1 Description of Transportation Facilities in Study Network

I-285

I-285 is an eight lane (four lanes in each direction) north-south interstate facility to the west of the proposed development.

US 41 (SR 3)

US 41 (SR 3) is a north-south four-lane undivided roadway with a posted speed limit of 45 mph in the vicinity of the study area.

Cumberland Parkway

Cumberland Parkway is a four-lane undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

Paces Ferry Road

Paces Ferry Road is a four-lane roadway with a speed limit of 35 mph. It runs between West Paces Ferry Road and Paces Ferry Circle.

Overlook Parkway

Overlook Parkway is a north-south four-lane divided roadway with a speed limit of 25 mph. It runs between Mt Wilkinson Parkway in the north and Paces Ferry Road in the south.

New Paces Ferry Road

New Paces Ferry Road is a north-south two-lane undivided roadway with a speed limit of 25 mph. It connects to Paces Ferry Road at two points to north and south.

Paces Mill Road

Paces Mill Road is an east-west two-lane undivided roadway with a speed limit of 35 mph. It runs between US 41 (SR 3) in the east and Paces Ferry Road in the west.

Randall Farm Road

Randall Farm Road is a two-lane undivided roadway with a speed limit of 25 mph. It extends between Paces Ferry Road and Orchard Knob.

Bert Adams Road

Bert Adams Road is a two-lane undivided roadway with a speed limit of 25 mph. It extends between Cumberland Parkway and Cumberland Club Drive.

Woodland Brook Drive

Woodland Brook Drive is a two-lane undivided roadway with a speed limit of 35 mph. It extends between Paces Ferry Road and Log Cabin Drive / Eberhart Street.

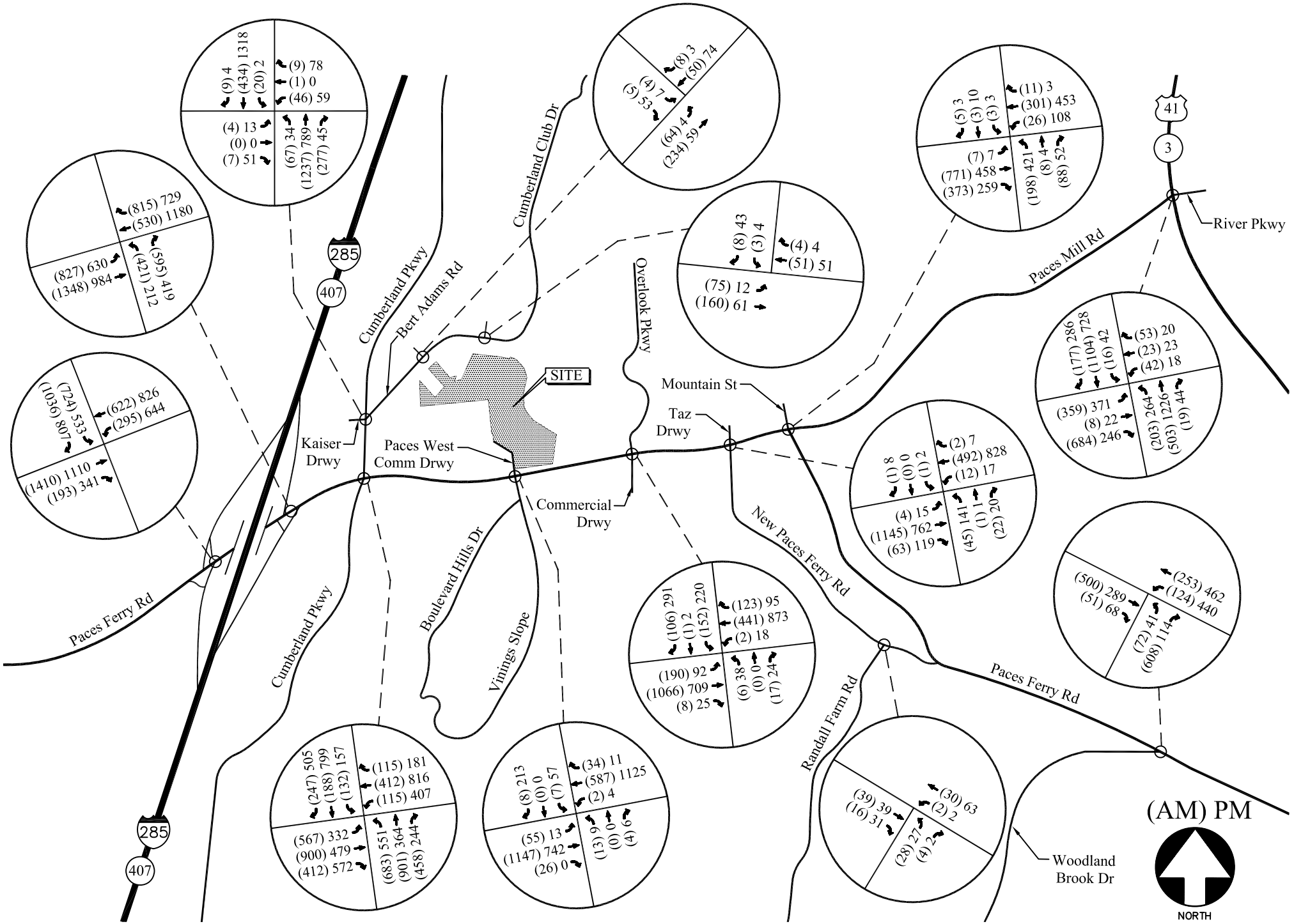
Boulevard Hills Drive

Boulevard Hills Drive is a two-lane undivided roadway with a speed limit of 25 mph. It extends between Paces Ferry Road and Vinings Slope.

6.2 Analysis Summary

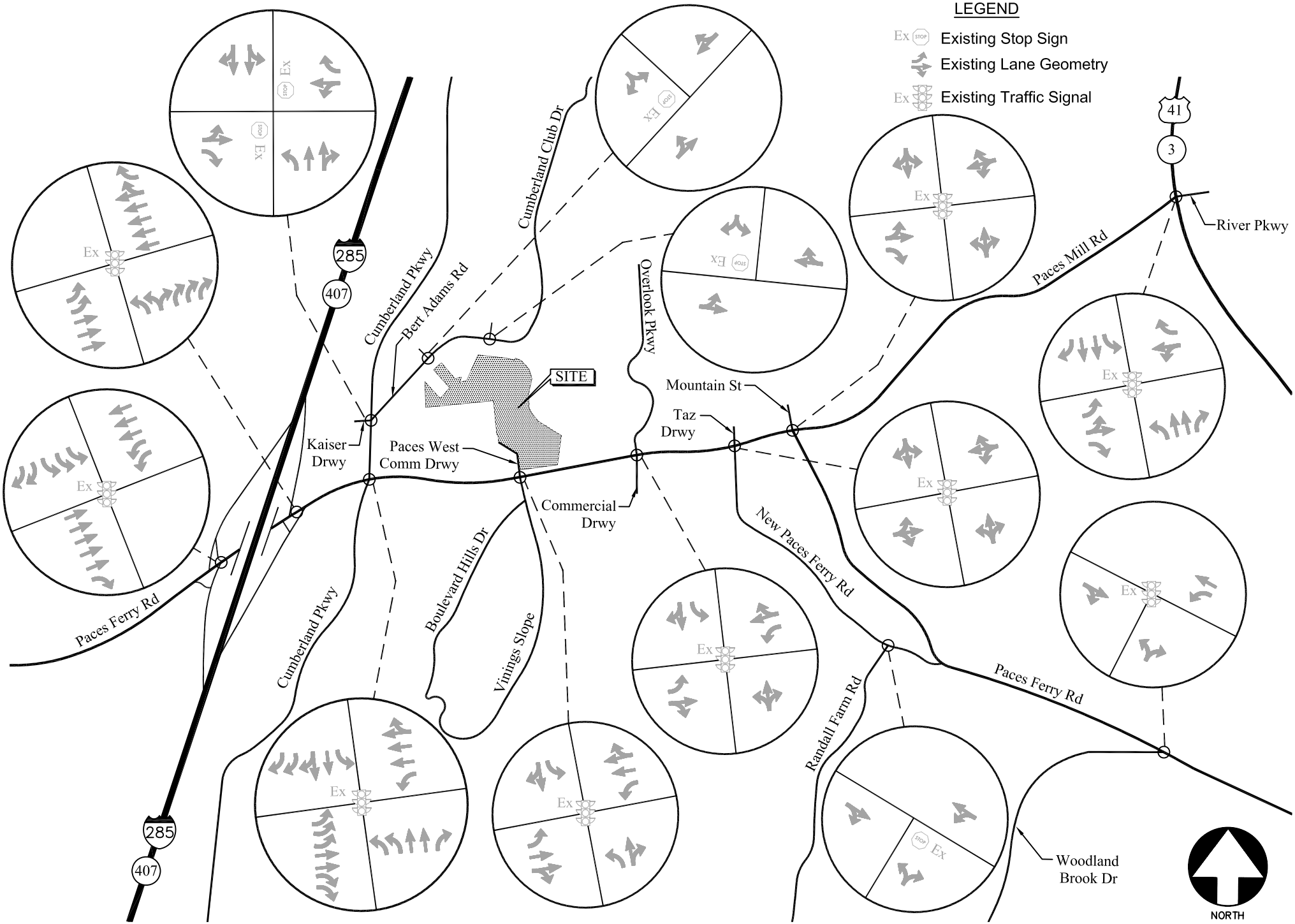
Existing traffic counts were performed at the intersections listed in Section 4 - Study Area Network. In addition to traffic counts, intersection geometry data was also obtained. Turning movement counts were collected during the agreed upon hours of 7.00 AM – 9.00 AM and 4.00 PM - 6:00 PM on weekdays. The four consecutive 15-minute interval volumes that summed to produce the highest volume at each intersection during each two-hour period were then determined. These volumes make up the A.M. and P.M peak hour traffic volumes for the intersections counted. The existing traffic volumes are shown in Figure 6 and the existing intersections traffic control and lane geometry for the study area network is shown in Figure 7.

The site-generated volumes shown in Table 2 were distributed to the surrounding roadway network in accordance with the trip distribution. The site-generated volumes for the study intersections are shown in Figure 8. Existing traffic operations were analyzed at all the existing intersections in accordance with the HCM methodology using Synchro software. The results of the analysis are shown in Table 3.



EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 6



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

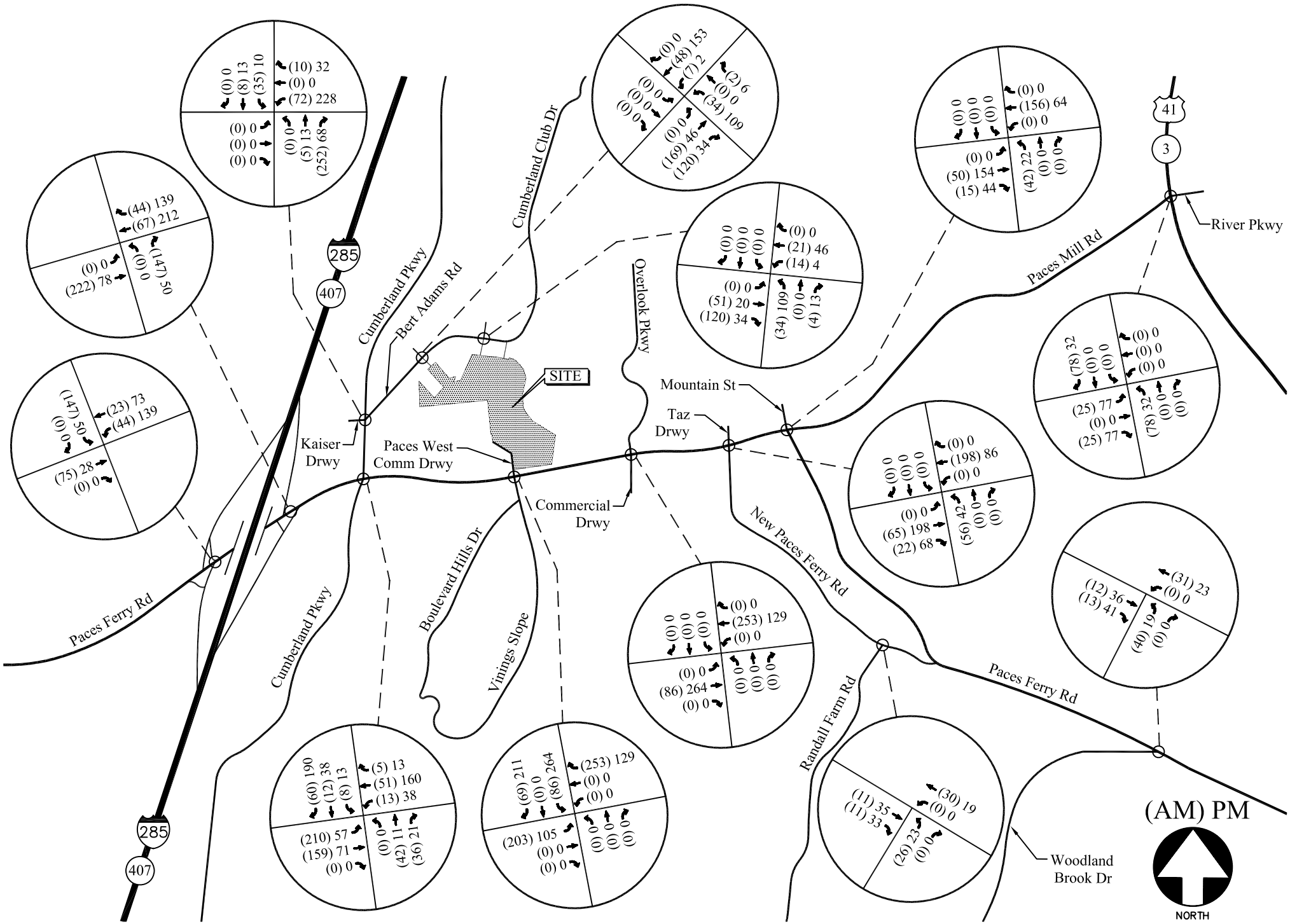
FIGURE 7

A&R Engineering Inc.

TABLE 3 EXISTING INTERSECTION OPERATIONS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c*	LOS (Delay)	v/c*
Paces Ferry Road / I-285 Southbound ramps	D / D	Signalized	C (29.7)	0.68	C (29.4)	0.66
Paces Ferry Road / I-285 Northbound ramps	D / D	Signalized	C (27.3)	0.60	C (21.1)	0.55
Cumberland Parkway / Paces Ferry Road	D / D	Signalized	D (35.8)	0.80	D (49.5)	0.96
Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway	D / D	Signalized	A (3.0)	0.41	A (9.2)	0.41
Paces Ferry Road / Overlook Parkway / Commercial Driveway	D / D	Signalized	B (17.8)	0.79	D (38.0)	0.88
Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway	D / D	Signalized	A (6.2)	0.78	B (11.6)	0.72
US 41 (SR 3) / Paces Mill Road / River Parkway	D / D	Signalized	C (25.1)	0.70	C (25.0)	0.66
Paces Ferry Road / Woodland Brook Drive	D / D	Signalized	C (31.5)	0.74	B (13.1)	0.53
Paces Ferry Road / Paces Mill Road / Mountain Street	D / D	Signalized	B (17.1)	0.72	D (45.7)	0.97
New Paces Ferry Road / Randall Farm Road		Stop Controlled				
-Westbound Left	D / D	on Randall Farm	A (0.8)	-	A (0.8)	-
-Northbound Approach	D / D	Rd	A (9.1)	-	A (9.5)	-
Cumberland Parkway / Bert Adams Road /Kaiser Permanente Driveway		Stop Controlled on Bert Adams Rd /Kaiser Permanente Drwy				
-Eastbound Approach	D / E		C (24.1)	-	F (99.7)	-
-Westbound Approach	E / E		F (842.4)	-	F (380.0)	-
-Northbound Left	D / D		A (8.6)	-	B (12.8)	-
-Southbound Left	D / D		A (3.2)	-	A (0.1)	-
Bert Adams Road / Cumberland Office Park Drwy (western)		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (1.9)	-	A (0.5)	-
-Southbound Approach	D / D	Drwy (western)	B (10.0)	-	A (9.0)	-
Bert Adams Road / Cumberland Office Park Drwy (eastern)		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (2.7)	-	A (1.3)	-
-Southbound Approach	D / D	Drwy (eastern)	A (9.4)	-	A (8.8)	-

*v/c ratio is not calculated for unsignalized intersections.

As shown in Table 3, one of the study intersections is currently not operating at the LOS standard.



SITE-GENERATED WEEKDAY PEAK-HOUR VOLUMES

FIGURE 8

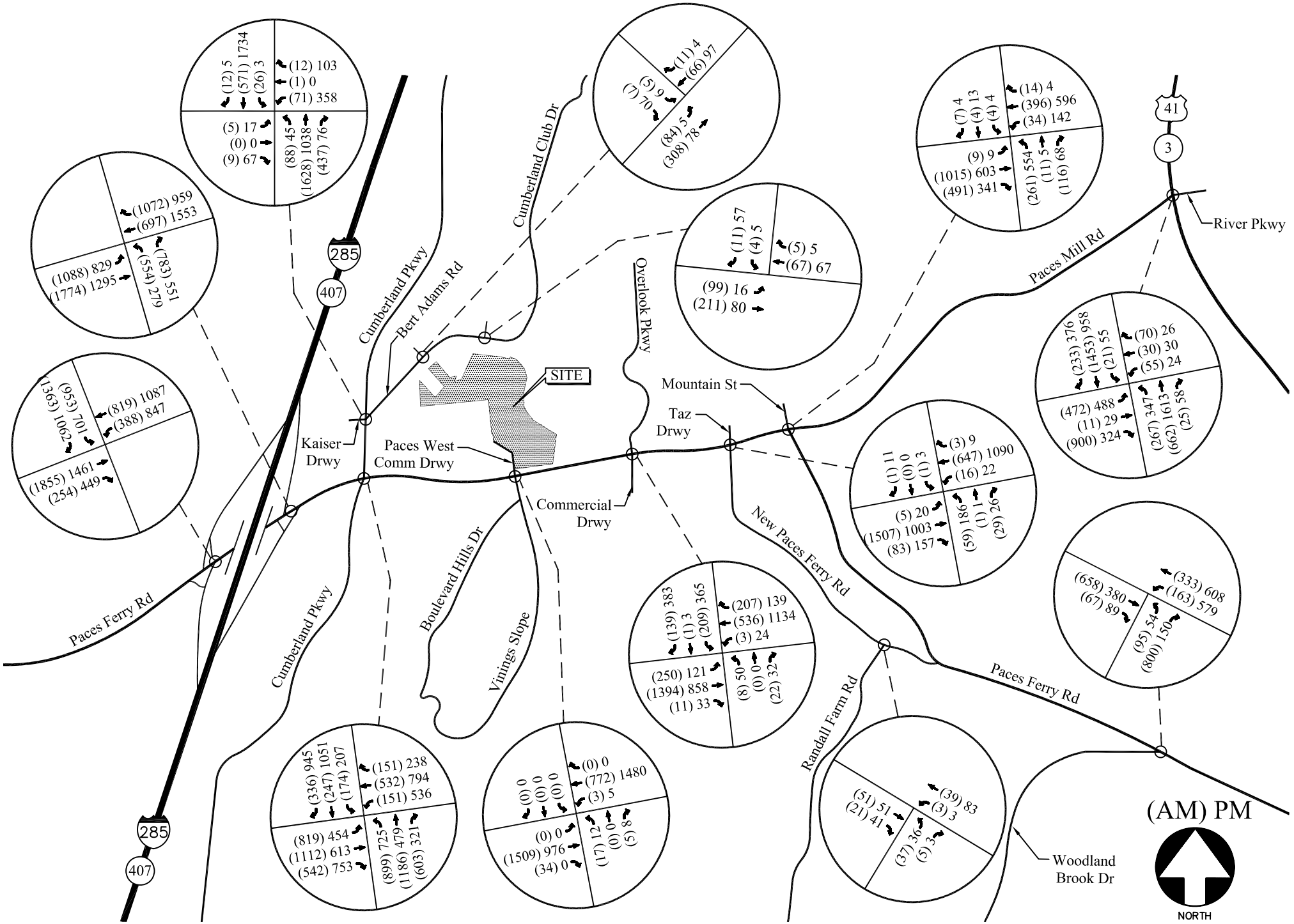
7. FUTURE YEAR BACKGROUND TRAFFIC

In order to evaluate future traffic operations in this area a projection was made of future base year traffic volumes. The Georgia Department of Transportation collected ADT's in the vicinity of the site over the last several years. Using this information, an annual growth factor of 2.3% was calculated. It was agreed upon in the methodology meeting and GRTA letter of understanding to use a growth factor of 4%. This growth factor was applied to the existing traffic volumes on the roadways to estimate the future year 2014 traffic volumes prior to the addition of the site-generated volumes. Further details are included in the correspondence section of Appendix. The future year (base) traffic volumes for 2014 at all the study intersections are shown in Figure 9.

A traffic operation analyses for the following Base Scenario was performed:

- Base Year 2014 traffic with existing lane geometry.
- Base Year 2014 traffic with additional recommended improvements to bring all intersections to LOS standard of D.

Results of the analyses for the above scenarios are shown in Tables 4 and 5. Recommendations to bring the intersections back to the LOS standard are discussed after Table 4.



BASE 2014 WEEKDAY PEAK HOUR VOLUMES

FIGURE 9

A&R Engineering Inc.

TABLE 4 BASE INTERSECTION OPERATIONS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c*	LOS (Delay)	v/c*
Paces Ferry Road / I-285 Southbound ramps	D / D	Signalized	D (41.6)	0.97	D (39.2)	0.94
Paces Ferry Road / I-285 Northbound ramps	D / D	Signalized	C (27.1)	0.83	C (21.3)	0.74
Cumberland Parkway / Paces Ferry Road	D / D	Signalized	E (55.3)	1.02	F (91.1)	1.25
Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway	D / D	Signalized	A (2.4)	0.55	A (1.2)	0.48
Paces Ferry Road / Overlook Parkway / Commercial Driveway	D / D	Signalized	F (84.7)	1.04	F (132.7)	1.22
Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway	D / D	Signalized	C (33.5)	1.04	C (24.9)	0.97
US 41 (SR 3) / Paces Mill Road / River Parkway	D / D	Signalized	D (40.9)	0.93	D (40.8)	1.03
Paces Ferry Road / Woodland Brook Drive	D / D	Signalized	E (78.9)	1.07	B (17.6)	0.71
Paces Ferry Road / Paces Mill Road / Mountain Street	D / D	Signalized	C (31.9)	0.96	F (157.1)	1.48
New Paces Ferry Road / Randall Farm Road		Stop Controlled				
-Westbound Left	D / D	on Randall Farm	A (0.9)	-	A (0.9)	-
-Northbound Approach	D / D	Rd	A (9.4)	-	A (10.0)	-
Cumberland Parkway / Bert Adams Road /Kaiser Permanente Driveway		Stop Controlled on Bert Adams Rd /Kaiser Permanente Drwy				
-Eastbound Approach	D / E		F (999)	-	F (2942.4)	-
-Westbound Approach	E / E		F (999)	-	F (999)	-
-Northbound Left	D / D		A (9.2)	-	C (17.5)	-
-Southbound Left	D / D		B (14.6)	-	A (0.3)	-
Bert Adams Road / Cumberland Office Park Drwy (western)		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (2.1)	-	A (0.5)	-
-Southbound Approach	D / D	Drwy (western)	B (10.7)	-	A (9.3)	-
Bert Adams Road / Cumberland Office Park Drwy (eastern)		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (2.8)	-	A (1.3)	-
-Southbound Approach	D / D	Drwy (eastern)	A (9.8)	-	A (9.0)	-

*v/c ratio is not calculated for unsignalized intersections.

Analysis of the future year (Base 2014) traffic volumes indicates that six of the study intersections will not operate within the LOS standard. The following improvements were identified for those intersections that did not comply with the LOS standard.

- Cumberland Parkway / Paces Ferry Road
    - Add an additional westbound left turn lane on Paces Ferry Road creating dual left turn lanes. This improvement can be accommodated within the existing striped gore area on Paces Ferry Road westbound.

- Change the eastbound right turn phasing on Paces Ferry Road to permissive + overlap phasing.
- Restripe the existing southbound through lane, which is currently a shared through / right turn lane, to be a dedicated through lane.
- All approaches include numerous turn and through lanes and no additional turn lanes can be feasibly recommended to further improve the LOS at the intersection.

- Paces Ferry Road / Overlook Parkway / Commercial Driveway
  - Remove the northbound and southbound split phasing.
  - Add a westbound through lane on Paces Ferry Road.

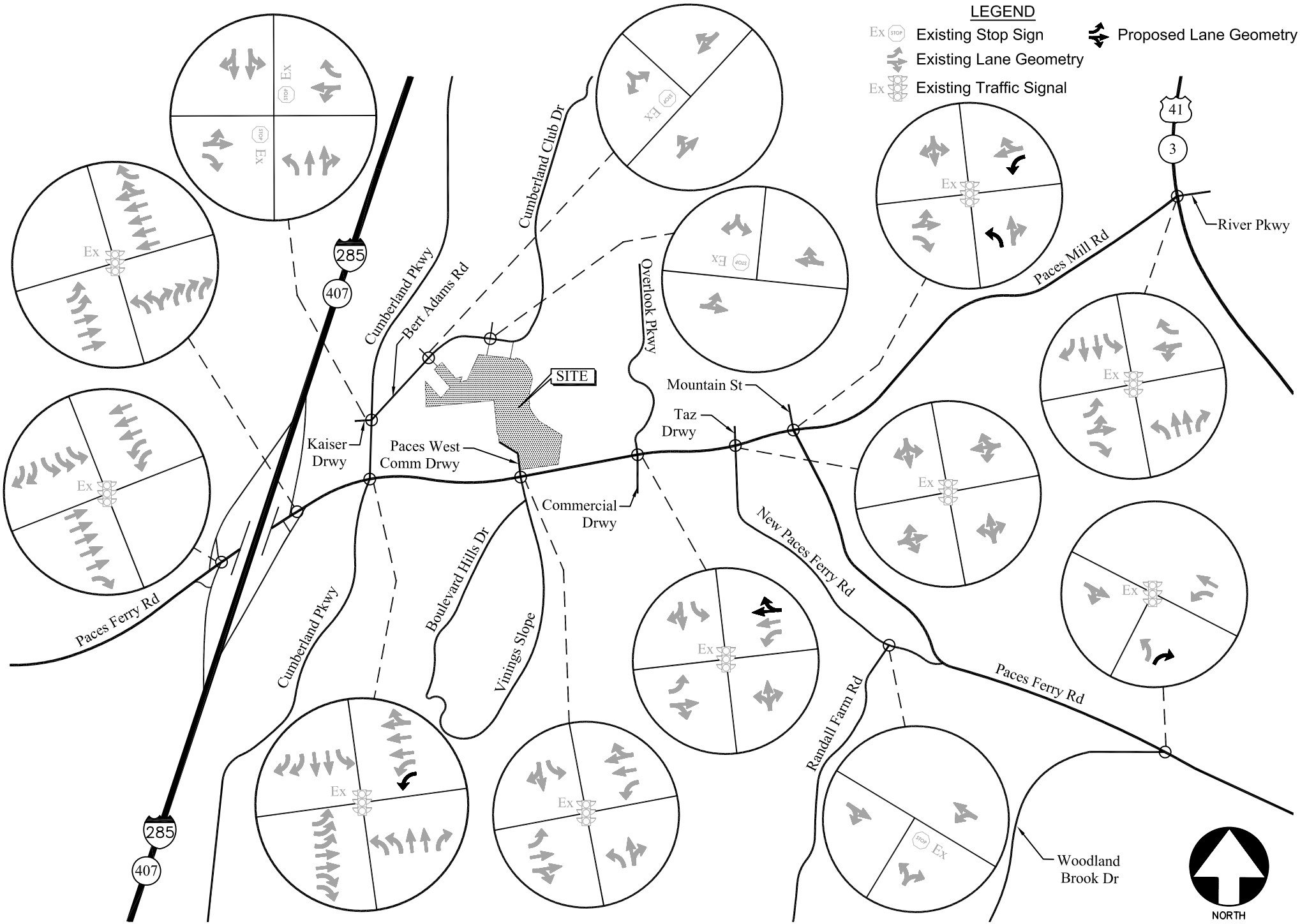
- Paces Ferry Road / Woodland Brook Drive
  - Change the northbound right turn phasing to permissive + overlap phasing.

- Paces Ferry Road / Paces Mill Road / Mountain Street
  - Provide split phasing for the northbound and southbound approaches.
  - Provide permissive + overlap phasing for the eastbound right turn movement.
  - Add a westbound left turn lane on Paces Mill Road.
  - Add a northbound left turn lane on Paces Ferry Road.

- Cumberland Parkway / Bert Adams Road / Kaiser Permanente Driveway
  - No additional improvements other than the installation of a traffic signal can be recommended at the intersection to further improve the side street LOS. However, the intersection is not a good candidate for signalization due to the proximity of the signal at Cumberland Parkway / Paces Ferry Road, which is located less than 500 feet away. Delays at unsignalized side streets are common during the peak hours and if vehicles experience excessive delays, Mount Wilkinson Parkway can be used as an alternative to access Cumberland Parkway.

The LOS at the above intersections in the year 2014 with just background traffic after the above improvements are implemented is shown in Table 5. The recommended base intersections traffic control and lane geometry are shown in Figure 10.

TABLE 5						
BASE INTERSECTION OPERATIONS – WITH IMPROVEMENTS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M Peak Hour	
			LOS (Delay)	v/c	LOS (Delay)	v/c
Cumberland Parkway / Paces Ferry Road	D / D	Signalized	D (47.1)	0.96	E (55.3)	1.00
Paces Ferry Road / Overlook Parkway / Commercial Driveway	D / D	Signalized	D (37.0)	1.04	C (30.8)	0.90
Paces Ferry Road / Woodland Brook Drive	D / D	Signalized	D (53.5)	1.01	B (15.7)	0.71
Paces Ferry Road / Paces Mill Road / Mountain Street	D / D	Signalized	B (17.2)	0.85	C (30.4)	0.87
Cumberland Parkway / Bert Adams Road /Kaiser Permanente Driveway		Stop Controlled on Bert Adams Rd /Kaiser Permanente Drwy				
-Eastbound Approach	D / E		F (999)	-	F (2942.4)	-
-Westbound Approach	E / E		F (999)	-	F (999)	-
-Northbound Left	D / D		A (9.2)	-	C (17.5)	-
-Southbound Left	D / D		B (14.6)	-	A (0.3)	-



BASE 2014 TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 10

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8. FUTURE YEAR TOTAL TRAFFIC

The traffic volumes that will be generated by the proposed development were added to the future base year 2014 traffic volumes in order to determine the traffic volumes that will be on the roadway network after completion of the project. The future traffic volumes for the year 2014 including the site-generated volumes for the study intersections are shown in Figure 11.

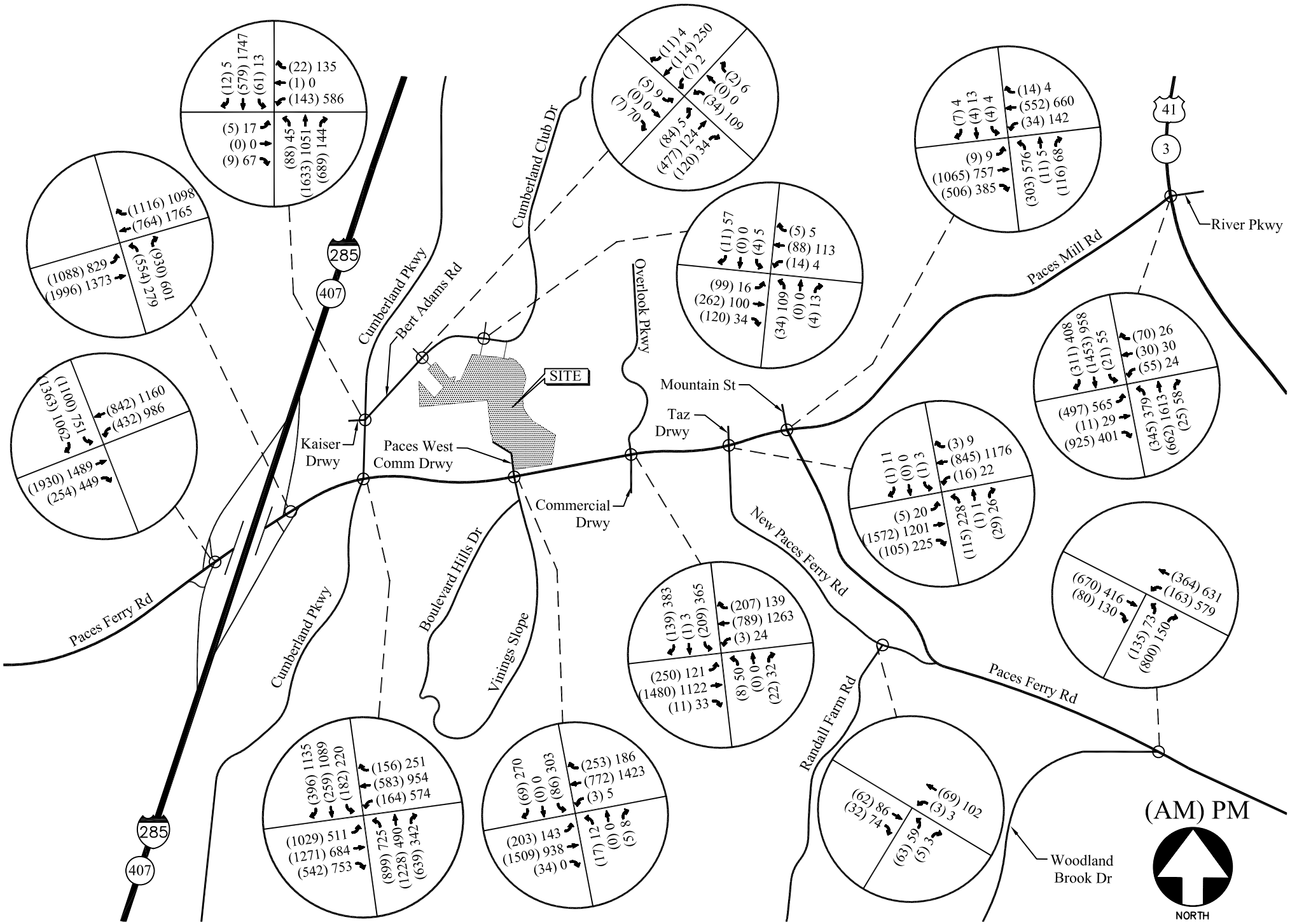
9. FACILITY NEEDS ANALYSIS

9.1 Intersection Analysis

The future year total traffic volumes were used to analyze the study network intersections. Traffic operations analyses for the following scenarios were performed:

- Future Year 2014 Traffic Volumes with site generated traffic and existing lane geometry.
- Future Year 2014 Traffic Volumes with site generated traffic and the recommended improvements to bring all intersections to LOS standard.

The results of the analysis for the above scenarios are shown in Tables 6 and 7. Recommendations to bring the intersections to the LOS standard are discussed after each appropriate section.



FUTURE 2014 WEEKDAY PEAK HOUR VOLUMES

FIGURE 11

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TABLE 6 FUTURE INTERSECTION OPERATIONS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c*	LOS (Delay)	v/c*
Paces Ferry Road / I-285 Southbound ramps	D / D	Signalized	C (44.9)	0.99	D (44.8)	1.00
Paces Ferry Road / I-285 Northbound ramps	D / D	Signalized	C (28.3)	0.86	C (22.3)	0.80
Cumberland Parkway / Paces Ferry Road	D / D	Signalized	E (69.8)	1.11	F (105.3)	1.32
Paces Ferry Road / Boulevard Hills Drive / South Site Driveway	D / D	Signalized	A (10.0)	0.63	C (23.2)	0.91
Paces Ferry Road / Overlook Parkway / Commercial Driveway	D / D	Signalized	F (127.9)	1.10	F (170.0)	1.32
Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway	D / D	Signalized	E (64.8)	1.15	E (76.0)	1.18
US 41 (SR 3) / Paces Mill Road / River Parkway	D / D	Signalized	D (52.3)	0.99	D (45.8)	1.04
Paces Ferry Road / Woodland Brook Drive	D / D	Signalized	F (81.8)	1.09	C (22.6)	0.77
Paces Ferry Road / Paces Mill Road / Mountain St	D / D	Signalized	E (60.3)	1.18	F (227.8)	1.83
New Paces Ferry Road / Randall Farm Road		Stop Controlled				
-Westbound Left	D / D	on Randall Farm	A (0.5)	-	A (0.8)	-
-Northbound Approach	D / D	Rd	A (9.9)	-	B (11.1)	-
Cumberland Parkway / Bert Adams Road /Kaiser Permanente Driveway		Stop Controlled on Bert Adams Rd /Kaiser Permanente Drwy				
-Eastbound Approach	D / E		F (999)	-	F (2942.6)	-
-Westbound Approach	E / E		F (999)	-	F (9999)	-
-Northbound Left	D / D		A (9.2)	-	C (17.7)	-
-Southbound Left	D / D		F(128.1)	-	A (1.7)	-
Bert Adams Road / Cumberland Office Park Drwy (western) / North Site Driveway 1		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (1.6)	-	A (0.3)	-
-Westbound Left	D / D	Drwy (western)	A (0.5)	-	A (0.1)	-
-Northbound Approach	D / D	/ North Site	C (22.6)	-	C (16.7)	-
-Southbound Approach	D / D	Driveway 1	B (13.8)	-	B (10.6)	-
Bert Adams Road / Cumberland Office Park Drwy (eastern) / North Site Driveway 2		Stop Controlled on Cumberland				
-Eastbound Left	D / D	Office Park	A (2.1)	-	A (0.9)	-
-Westbound Left	D / D	Drwy (eastern) /	A (1.2)	-	A (0.3)	-
-Northbound Approach	D / D	North Site	C (16.9)	-	B (13.1)	-
-Southbound Approach	D / D	Driveway 2	B (10.8)	-	A (9.4)	-

*v/c ratio is not calculated for unsignalized intersections.

Analysis of the future year 2014 traffic volumes indicates that seven of the study intersections will not operate within the LOS standard. The following lists the improvements needed to restore that intersections back to the LOS standard for the future year 2014 traffic:

- Cumberland Parkway / Paces Ferry Road
  - Add an additional westbound left turn lane on Paces Ferry Road creating dual left turn lanes. This improvement can be accommodated within the existing striped gore area on Paces Ferry Road westbound.

- Change the eastbound right turn phasing on Paces Ferry Road to permissive + overlap phasing.
- Restripe the existing southbound through lane, which is currently a shared through / right turn lane, to be a dedicated through lane.
- All approaches include numerous turn and through lanes and no additional turn lanes can be feasibly recommended to further improve the LOS at the intersection.

- Paces Ferry Road / Overlook Parkway / Commercial Driveway
  - Remove the northbound and southbound split phasing.
  - Add a westbound through lane on Paces Ferry Road.

- Paces Ferry Road / Woodland Brook Drive
  - Change the northbound right turn phasing to permissive + overlap phasing.
  - Add a dedicated eastbound right turn lane on Paces Ferry Road.

- Paces Ferry Road / Paces Mill Road / Mountain Street
  - Provide split phasing for the northbound and southbound approaches.
  - Provide permissive + overlap phasing for the eastbound right turn movement.
  - Add an additional westbound left turn lane on Paces Mill Road.
  - Add a northbound left turn lane on Paces Ferry Road and allow left turns from a shared left / through / right turn lane.

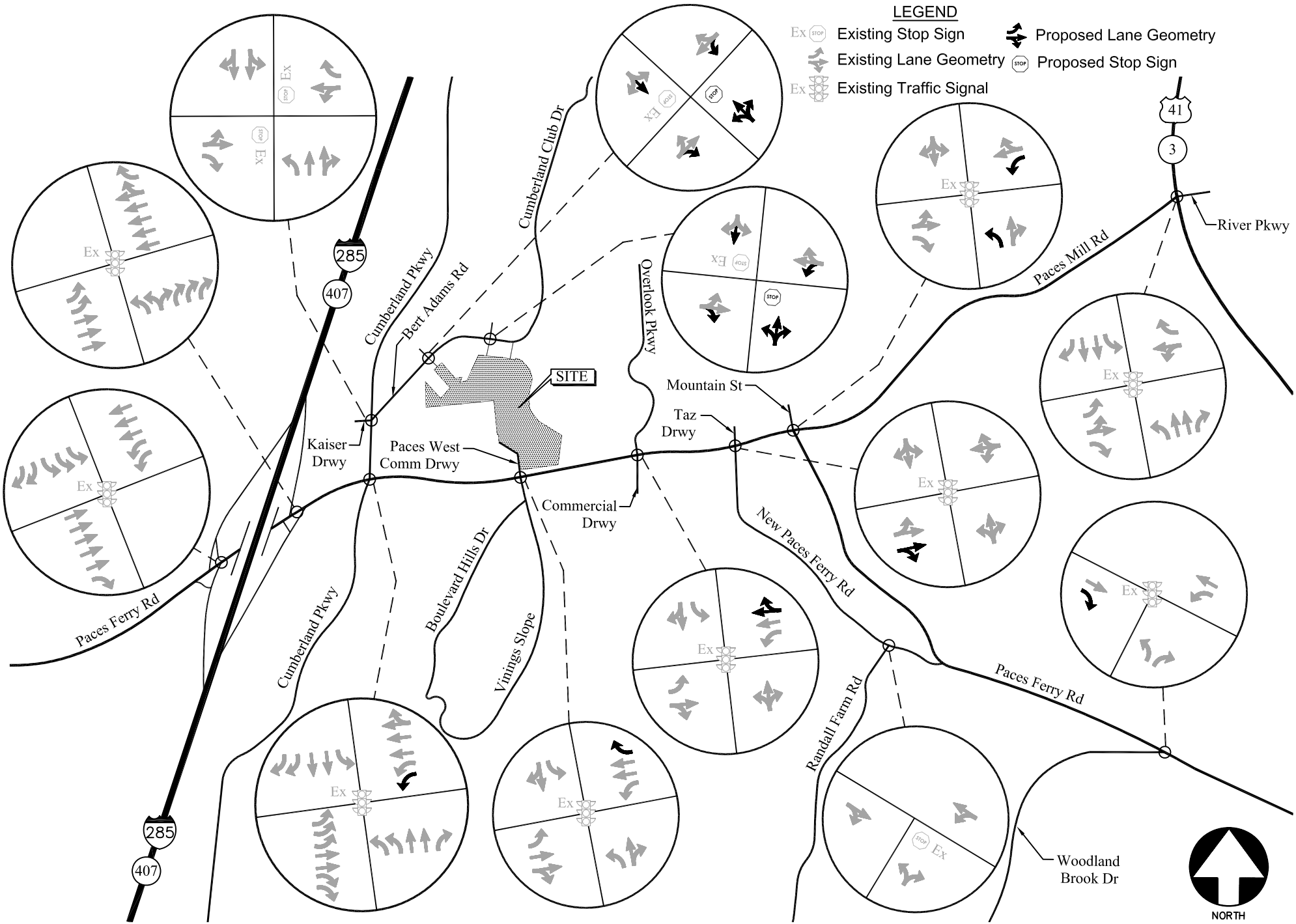
- Cumberland Parkway / Bert Adams Road / Kaiser Permanente Driveway
  - No additional improvements other than the installation of a traffic signal can be recommended at the intersection to further improve the side street LOS. However, the intersection is not a good candidate for signalization due to the proximity of the signal at Cumberland Parkway / Paces Ferry Road, which is located less than 500 feet away. Delays at unsignalized side streets are common during the peak hours and if vehicles experience excessive delays, Mount Wilkinson Parkway can be used as an alternative to access Cumberland Parkway.

- Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway
  - Add an eastbound through lane on Paces Ferry Road.
  - Add a westbound through lane on Paces Ferry Road.

The LOS for the above intersections in the year 2014 with the addition of site-generated traffic after the implementation of above recommended improvement is shown in Table 7.

TABLE 7 FUTURE INTERSECTION OPERATIONS WITH IMPROVEMENTS						
Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M Peak Hour	
			LOS (Delay)	v/c	LOS (Delay)	v/c
Cumberland Parkway / Paces Ferry Road	D / D	Signalized	E (63.4)	1.08	E (70.4)	1.09
Paces Ferry Road / Overlook Parkway / Commercial Driveway	D / D	Signalized	D (44.0)	1.09	D (44.0)	1.06
Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway	D / D	Signalized	B (11.0)	0.70	D (38.2)	1.04
US 41 (SR 3) / Paces Mill Road / River Parkway	D / D	Signalized	D (53.3)	0.99	D (43.7)	1.04
Paces Ferry Road / Woodland Brook Drive	D / D	Signalized	D (45.3)	0.98	B (14.3)	0.69
Paces Ferry Road / Paces Mill Road / Mountain St	D / D	Signalized	C (25.1)	0.86	C (29.6)	0.77
Cumberland Parkway / Bert Adams Road /Kaiser Permanente Driveway		Stop Controlled on				
-Eastbound Approach	D / E	Bert Adams	F (999)	-	F (2942.6)	-
-Westbound Approach	E / E	Rd /Kaiser	F (999)	-	F (9999)	-
-Northbound Left	D / D	Permanente	A (9.2)	-	C (17.7)	-
-Southbound Left	D / D	Drwy	F(128.1)	-	A (1.7)	-

The future intersection traffic control and lane geometry for the study area network needed to bring all intersections to the LOS standard is shown in Figure 12.



FUTURE 2014 TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 12

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9.2 Site Access Analysis

The site proposes to have one full access driveway along Paces Ferry Road and three full access site driveways along Bert Adams Road. The future traffic volumes at the site driveways are shown in Figure 13. The recommended traffic control and lane geometry at these driveways are presented in the following sections.

The site access analysis was performed for the Future Year 2014 traffic volumes with recommended lane geometry. Results of the analysis are shown in Table 8. Traffic control and lane geometry adopted to operate the intersections at the LOS standard are discussed in the following pages.

TABLE 8
FUTURE SITE DRIVEWAY OPERATIONS

Intersection	AM/PM LOS Standard	Traffic Control	A.M. Peak Hour		P.M. Peak Hour	
			LOS (Delay)	v/c*	LOS (Delay)	v/c*
Paces Ferry Road / Boulevard Hills Drive / South Site Driveway	D / D	Signalized	A (7.6)	0.63	C (25.3)	0.79
Bert Adams Road / Cumberland Office Park Drwy (western) / North Site Drwy 1		Stop Controlled on Cumberland Office Park Drwy (western) / North Site Drwy 1				
-Eastbound Left	D / D		A (1.6)	-	A (0.3)	-
-Westbound Left	D / D		A (0.5)	-	A (0.1)	-
-Northbound Approach	D / D		C (22.6)	-	C (16.7)	-
-Southbound Approach	D / D		B (13.8)	-	B (10.6)	-
Bert Adams Road / Cumberland Office Park Drwy (eastern) / North Site Drwy 2		Stop Controlled on Cumberland Office Park Drwy (eastern) / North Site Drwy 2				
-Eastbound Left	D / D		A (2.1)	-	A (0.9)	-
-Westbound Left	D / D		A (1.2)	-	A (0.3)	-
-Northbound Approach	D / D		C (16.9)	-	B (13.1)	-
-Southbound Approach	D / D		B (10.8)	-	A (9.4)	-
Bert Adams Road / North Site Drwy 3		Stop Controlled on North Site Drwy 3				
-Westbound Left	D / D		A (1.1)	-	A (0.4)	-
-Northbound Approach	D / D		B (10.9)	-	A (9.9)	-

*v/c ratio is not calculated for unsignalized intersections.

The following lists the recommended lane geometry for the site driveways.

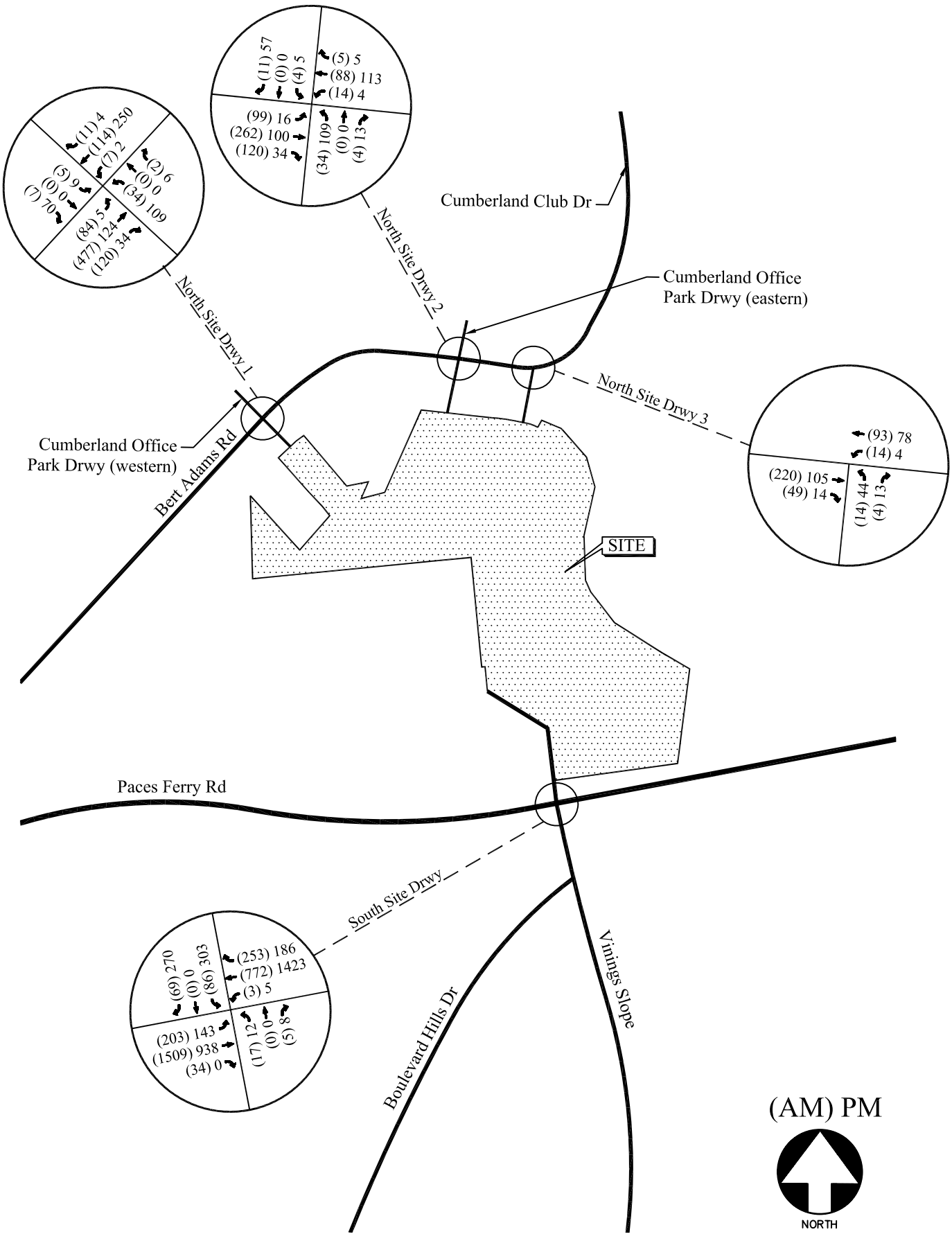
- Paces Ferry Road / Boulevard Hills Drive / South Site Driveway
  - Add a dedicated westbound right turn lane on Paces Ferry Road.

- Bert Adams Road / Cumberland Office Park Driveways (eastern & western) / North Site Driveways 1 & 2
  - It is recommended that the intersections have stop controlled side streets,

with Bert Adams Road remaining free flow.
    - Provide shared left / through / right lane on the North Site Driveways 1 & 2.

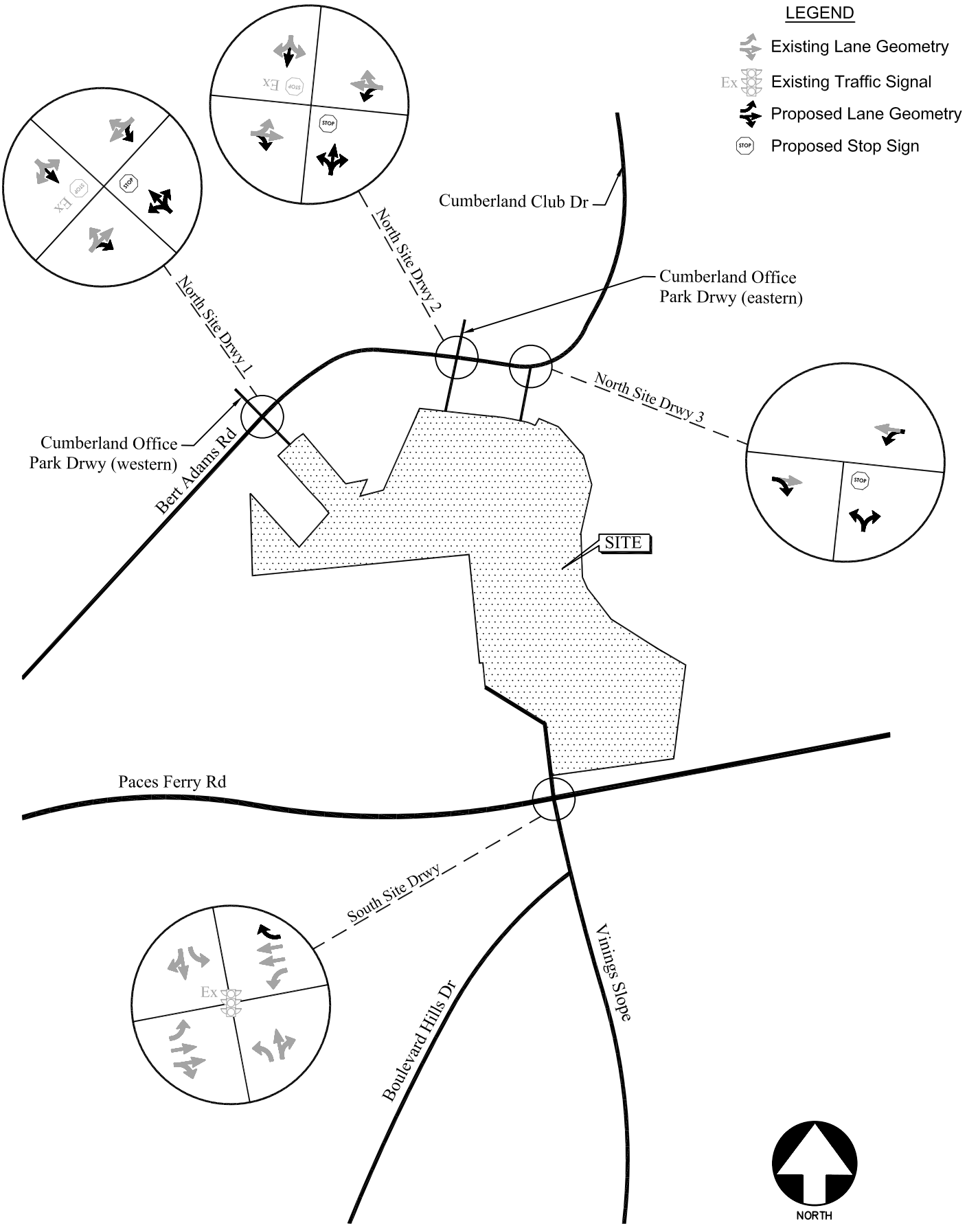
- Bert Adams Road / North Site Driveways 3
    - It is recommended that the intersection have a stop controlled side street (North Site Driveway 3), with Bert Adams Road remaining free flow.
    - Provide shared left / right lane on the North Site Driveway 3.

The recommended traffic control and lane geometry for the site driveways is shown in Figure 14.



FUTURE 2014 SITE ACCESS PEAK HOUR VOLUMES FIGURE 13

A&R Engineering Inc.



FUTURE 2014 SITE ACCESS TRAFFIC CONTROL AND LANE GEOMETRY — FIGURE 14

A&R Engineering Inc.

10. NON-EXPEDITED CRITERIA

1. Quality, Character, Convenience, and Flexibility of Transportation Options
A CCT bus route currently serves the proposed site. There is a CCT bus stop located on Cumberland Parkway within ¼ mile of the site.

CCT bus route 70 currently serves the proposed site and a bus stop is located on Cumberland Parkway just south of Bert Adams Road.

2. Vehicle Miles Traveled
The table below displays the reductions in trip generation due to mixed-use and pass-by reductions.

24-hour Trip Generation	13,240
- Pass-by Reductions	-1,932
- Mixed-use Reductions	-1,625
- CCT Transit Reductions	-193
Net Trips:	9,489

3. Relationship Between Location of Proposed DRI and Regional Mobility
The proposed DRI is currently served by one CCT bus route.

4. Relationship Between Proposed DRI and Existing or Planned Transit Facilities
CCT bus route 70 currently serves the proposed site and a bus stop is located on Cumberland Parkway just south of Bert Adams Road. Details for CCT bus 70 are included in the Appendix.

5. Transportation Management Area Designation
The area around the proposed project is designated as a transportation management area and is managed by the Cumberland CID.

6. Offsite Trip Reduction and Trip Reduction Techniques
Due to the nature of the development, there will be significant mixed-use and pass by trip reductions. These reductions have been applied for the AM peak hour, PM peak hour and 24-hour trips projected to be generated by the site.

7. Balance of Land Uses – Jobs/Housing Balance
Please refer to the AOI study submitted along with this report.

8. Relationships Between Proposed DRI and Existing Development and Infrastructure
The proposed DRI is located in an area where adequate public facilities will be available to serve the proposed development. Cobb County Water and Sewer authority will provide water and wastewater services for the development. Regarding transportation, the traffic study has identified transportation improvements relating to the site access, along with improvements to the surrounding roadway network, which will allow traffic in the area to operate at the LOS standard.

10.2 Pedestrian and Internal Circulation

The proposed project will provide pedestrian walkways along all property frontages to public streets and within the development to connect the site with adjacent developments. The network of sidewalks will provide adequate pedestrian access to the various land uses within and around the development.

Internal roadways will provide adequate circulation of vehicular traffic as designed in the site plan. Vehicles exiting the site will be able to move internally to the site exit without experiencing excessive delays.

11. Other Pertinent Information

At this time no other pertinent information is available with regards to this development. All significant characteristics of the proposed development are fully discussed within this report. Additionally, an Area of Influence study has been prepared and submitted along with the traffic analysis.

12. Significant Impact Analysis

Due to the growth in the area in addition to the site generated traffic a number of intersection improvements will be required to bring the intersections in the vicinity of the site to the LOS standard.

Appendix

Appendix Table of Contents

Existing AM Intersection Analysis

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1469	203	317	669	778	1102
Act Effct Green (s)	45.6	45.6	16.0	65.6	46.4	46.4
Actuated g/C Ratio	0.38	0.38	0.13	0.55	0.39	0.39
v/c Ratio	0.51	0.28	0.69	0.24	0.40	0.87
Control Delay	31.2	5.4	63.9	4.2	26.7	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	5.4	63.9	4.2	26.7	31.4
LOS	C	A	E	A	C	C
Approach Delay	28.1			23.4		
Approach LOS	C			C		
Queue Length 50th (ft)	220	0	125	10	149	326
Queue Length 95th (ft)	286	56	m168	62	168	396
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	2864	727	629	2779	2246	1426
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.28	0.50	0.24	0.35	0.77

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 84 (70%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1410	193	295	622	0	0	0	0	724	0	1036
Peak-hour factor, PHF	0.92	0.96	0.95	0.93	0.93	0.92	0.92	0.92	0.92	0.93	0.92	0.94
Adj. Flow (vph)	0	1469	203	317	669	0	0	0	0	778	0	1102
RTOR Reduction (vph)	0	0	126	0	0	0	0	0	0	0	0	192
Lane Group Flow (vph)	0	1469	77	317	669	0	0	0	0	778	0	910
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		45.6	45.6	16.0	65.6					46.4		46.4
Effective Green, g (s)		45.6	45.6	16.0	65.6					46.4		46.4
Actuated g/C Ratio		0.38	0.38	0.13	0.55					0.39		0.39
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		2867	602	458	2780					1929		1078
v/s Ratio Prot		c0.19		c0.09	0.13					0.16		
v/s Ratio Perm			0.05									c0.33
v/c Ratio		0.51	0.13	0.69	0.24					0.40		0.84
Uniform Delay, d1		28.6	24.2	49.6	14.2					26.7		33.5
Progression Factor		1.00	1.00	1.15	0.26					1.00		1.00
Incremental Delay, d2		0.7	0.4	3.9	0.2					0.1		6.2
Delay (s)		29.3	24.7	61.0	3.9					26.9		39.7
Level of Service		C	C	E	A					C		D
Approach Delay (s)		28.7			22.3			0.0			34.4	
Approach LOS		C			C			A			C	

Intersection Summary					
HCM Average Control Delay	29.7	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.68				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	81.5%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	871	1465	1009	420	231	208	626
Act Effct Green (s)	37.1	89.0	47.9	47.9	23.0	23.0	23.0
Actuated g/C Ratio	0.31	0.74	0.40	0.40	0.19	0.19	0.19
v/c Ratio	0.82	0.39	0.37	0.57	0.72	0.76	0.68
Control Delay	34.3	11.1	18.0	6.9	57.6	62.9	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	11.1	18.0	6.9	57.6	62.9	35.6
LOS	C	B	B	A	E	E	D
Approach Delay		19.8	14.7			45.7	
Approach LOS		B	B			D	
Queue Length 50th (ft)	265	274	89	69	176	187	126
Queue Length 95th (ft)	334	321	121	m94	258	283	165
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1168	3771	2745	732	392	334	1085
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.39	0.37	0.57	0.59	0.62	0.58

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.94	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	3433	5085			6636	1203	1681	1433	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	3433	5085			6636	1203	1681	1433	4085			
Volume (vph)	827	1348	0	0	530	815	421	0	595	0	0	0
Peak-hour factor, PHF	0.95	0.92	0.92	0.92	0.90	0.97	0.96	0.92	0.95	0.92	0.92	0.92
Adj. Flow (vph)	871	1465	0	0	589	840	439	0	626	0	0	0
RTOR Reduction (vph)	0	0	0	0	97	252	0	0	139	0	0	0
Lane Group Flow (vph)	871	1465	0	0	912	168	231	208	487	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	37.1	89.0			47.9	47.9	23.0	23.0	23.0			
Effective Green, g (s)	37.1	89.0			47.9	47.9	23.0	23.0	23.0			
Actuated g/C Ratio	0.31	0.74			0.40	0.40	0.19	0.19	0.19			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1061	3771			2649	480	322	275	783			
v/s Ratio Prot	c0.25	c0.29			0.14		0.14	c0.15				
v/s Ratio Perm						0.14			0.12			
v/c Ratio	0.82	0.39			0.34	0.35	0.72	0.76	0.62			
Uniform Delay, d1	38.4	5.6			25.1	25.2	45.5	45.9	44.5			
Progression Factor	0.73	1.78			0.79	1.38	1.00	1.00	1.00			
Incremental Delay, d2	4.7	0.3			0.3	1.6	7.4	11.2	1.5			
Delay (s)	32.8	10.3			20.1	36.4	52.9	57.1	46.1			
Level of Service	C	B			C	D	D	E	D			
Approach Delay (s)		18.7			24.9			49.7			0.0	
Approach LOS		B			C			D			A	

Intersection Summary					
HCM Average Control Delay	27.3	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.60				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	81.5%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	591	938	438	128	569	704	948	467	152	209	271
Act Effct Green (s)	20.0	42.9	42.9	12.0	34.9	29.0	35.4	47.4	13.7	20.1	40.1
Actuated g/C Ratio	0.17	0.36	0.36	0.10	0.29	0.24	0.30	0.40	0.11	0.17	0.33
v/c Ratio	0.71	0.74	0.34	0.72	0.39	0.85	0.91	0.69	0.75	0.39	0.27
Control Delay	33.1	20.2	2.4	65.8	24.0	53.7	53.6	19.8	74.2	47.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	20.2	2.4	65.8	24.0	53.7	53.6	19.8	74.2	47.0	8.0
LOS	C	C	A	E	C	D	D	B	E	D	A
Approach Delay		20.1			31.6		46.2			36.8	
Approach LOS		C			C		D			D	
Queue Length 50th (ft)	145	255	13	92	120	268	364	151	114	82	19
Queue Length 95th (ft)	168	285	23	#180	147	327	#458	229	#191	129	37
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	832	1266	1275	192	1470	944	1091	688	221	543	999
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.74	0.34	0.67	0.39	0.75	0.87	0.68	0.69	0.38	0.27

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 33.8 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4904		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4904		3433	3539	1583	1770	3204	2723
Volume (vph)	567	900	412	115	412	115	683	901	458	132	188	247
Peak-hour factor, PHF	0.96	0.96	0.94	0.90	0.95	0.85	0.97	0.95	0.98	0.87	0.90	0.91
Adj. Flow (vph)	591	938	438	128	434	135	704	948	467	152	209	271
RTOR Reduction (vph)	0	0	278	0	45	0	0	0	50	0	0	89
Lane Group Flow (vph)	591	938	160	128	524	0	704	948	417	152	209	182
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	20.0	42.9	42.9	12.0	34.9		29.0	35.4	47.4	13.7	20.1	40.1
Effective Green, g (s)	20.0	42.9	42.9	12.0	34.9		29.0	35.4	47.4	13.7	20.1	40.1
Actuated g/C Ratio	0.17	0.36	0.36	0.10	0.29		0.24	0.30	0.39	0.11	0.17	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	832	1265	996	177	1426		830	1044	625	202	537	910
v/s Ratio Prot	0.12	c0.27		c0.07	0.11		0.21	c0.27	0.07	c0.09	0.07	0.03
v/s Ratio Perm			0.06						0.20			0.03
v/c Ratio	0.71	0.74	0.16	0.72	0.37		0.85	0.91	0.67	0.75	0.39	0.20
Uniform Delay, d1	47.3	33.7	26.3	52.4	33.8		43.4	40.7	29.8	51.5	44.5	28.5
Progression Factor	0.60	0.47	0.59	0.82	0.75		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	3.5	0.3	13.4	0.7		8.1	11.2	2.7	14.6	0.5	0.1
Delay (s)	31.0	19.5	15.9	56.3	26.2		51.5	52.0	32.5	66.1	45.0	28.6
Level of Service	C	B	B	E	C		D	D	C	E	D	C
Approach Delay (s)		22.2			31.7			47.5			43.0	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	35.8	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.80				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	76.8%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	1256	4	675	20	8	12	12
Act Effct Green (s)	104.3	105.9	101.5	101.5	7.2	7.2	7.1	7.1
Actuated g/C Ratio	0.87	0.88	0.85	0.85	0.06	0.06	0.06	0.06
v/c Ratio	0.13	0.40	0.01	0.23	0.24	0.02	0.14	0.02
Control Delay	1.8	1.5	3.0	2.3	60.1	0.0	56.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.8	1.5	3.0	2.3	60.1	0.0	56.4	0.1
LOS	A	A	A	A	E	A	E	A
Approach Delay		1.6		2.3		42.9		28.3
Approach LOS		A		A		D		C
Queue Length 50th (ft)	2	23	0	24	15	0	9	0
Queue Length 95th (ft)	m11	115	m1	97	29	0	19	0
Internal Link Dist (ft)		1091		72		476		222
Turn Bay Length (ft)	90		65		50		55	
Base Capacity (vph)	637	3112	511	2964	303	571	304	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	108	0	0	0	9	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.42	0.01	0.23	0.07	0.01	0.04	0.02

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 49 (41%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 2.7		Intersection LOS: A	
Intersection Capacity Utilization 53.3%		ICU Level of Service A	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3524		1770	3505		1770	1583		1770	1583	
Flt Permitted	0.37	1.00		0.22	1.00		0.82	1.00		0.82	1.00	
Satd. Flow (perm)	694	3524		413	3505		1521	1583		1521	1583	
Volume (vph)	55	1147	26	2	587	34	13	0	4	7	0	8
Peak-hour factor, PHF	0.81	0.94	0.72	0.50	0.93	0.77	0.65	0.92	0.50	0.58	0.92	0.67
Adj. Flow (vph)	68	1220	36	4	631	44	20	0	8	12	0	12
RTOR Reduction (vph)	0	1	0	0	2	0	0	8	0	0	12	0
Lane Group Flow (vph)	68	1255	0	4	673	0	20	0	0	12	0	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	99.5	99.5		98.2	98.2		4.9	4.9		4.9	4.9	
Effective Green, g (s)	99.5	99.5		98.2	98.2		4.9	4.9		4.9	4.9	
Actuated g/C Ratio	0.83	0.83		0.82	0.82		0.04	0.04		0.04	0.04	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	619	2922		379	2868		62	65		62	65	
v/s Ratio Prot	0.00	c0.36		0.00	c0.19			0.00			0.00	
v/s Ratio Perm	0.09			0.01			c0.01			0.01		
v/c Ratio	0.11	0.43		0.01	0.23		0.32	0.01		0.19	0.01	
Uniform Delay, d1	2.0	2.7		2.0	2.5		55.9	55.2		55.6	55.2	
Progression Factor	0.46	0.38		0.98	0.80		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.3		0.0	0.2		3.0	0.0		1.5	0.0	
Delay (s)	1.0	1.3		2.0	2.1		58.9	55.2		57.2	55.3	
Level of Service	A	A		A	A		E	E		E	E	
Approach Delay (s)		1.3			2.1			57.9			56.2	
Approach LOS		A			A			E			E	

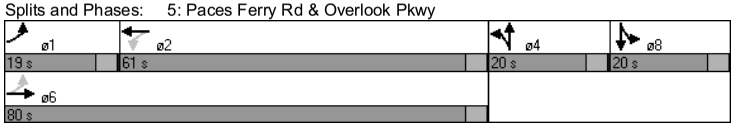
Intersection Summary					
HCM Average Control Delay	3.0	HCM Level of Service		A	
HCM Volume to Capacity ratio	0.41				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	53.3%	ICU Level of Service		A	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1859	0	1770	1796	0	0	1655	0	1770	1593	0
Flt Permitted	0.192			0.070				0.988		0.950		
Satd. Flow (perm)	358	1859	0	130	1796	0	0	1655	0	1770	1593	0
Satd. Flow (RTOR)		1			18			36			116	
Volume (vph)	190	1066	8	2	441	123	6	0	17	152	1	106
Lane Group Flow (vph)	232	1134	0	8	626	0	0	48	0	167	120	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	19.0	80.0	0.0	61.0	61.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0
Act Effct Green (s)	86.2	86.2		73.0	73.0			6.9		16.8	16.8	
Actuated g/C Ratio	0.72	0.72		0.61	0.61			0.06		0.14	0.14	
v/c Ratio	0.64	0.85		0.10	0.57			0.37		0.67	0.37	
Control Delay	18.4	15.3		13.0	11.9			31.1		61.9	11.7	
Queue Delay	0.0	0.0		0.0	0.1			0.0		0.0	0.0	
Total Delay	18.4	15.3		13.0	12.0			31.1		61.9	11.7	
LOS	B	B		B	B			C		E	B	
Approach Delay		15.8			12.0			31.1			41.0	
Approach LOS		B			B			C			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 44 (37%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 85.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.96			0.90		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1860		1770	1795			1653		1770	1593	
Flt Permitted	0.28	1.00		0.11	1.00			0.99		0.95	1.00	
Satd. Flow (perm)	531	1860		208	1795			1653		1770	1593	
Volume (vph)	190	1066	8	2	441	123	6	0	17	152	1	106
Peak-hour factor, PHF	0.82	0.95	0.67	0.25	0.93	0.81	0.50	0.92	0.47	0.91	0.25	0.91
Adj. Flow (vph)	232	1122	12	8	474	152	12	0	36	167	4	116
RTOR Reduction (vph)	0	0	0	0	7	0	0	34	0	0	100	0
Lane Group Flow (vph)	232	1134	0	8	619	0	0	14	0	167	20	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	85.4	85.4		72.3	72.3			5.8		16.8	16.8	
Effective Green, g (s)	85.4	85.4		72.3	72.3			5.8		16.8	16.8	
Actuated g/C Ratio	0.71	0.71		0.60	0.60			0.05		0.14	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	472	1324		125	1081			80		248	223	
v/s Ratio Prot	0.04	c0.61			0.34			c0.01		c0.09	0.01	
v/s Ratio Perm	0.31			0.04								
v/c Ratio	0.49	0.86		0.06	0.57			0.17		0.67	0.09	
Uniform Delay, d1	9.5	12.8		9.9	14.5			54.8		49.0	44.9	
Progression Factor	1.54	0.49		0.64	0.59			1.00		1.00	1.00	
Incremental Delay, d2	0.8	6.9		0.9	2.1			1.0		7.0	0.2	
Delay (s)	15.5	13.3		7.2	10.6			55.8		56.0	45.1	
Level of Service	B	B		A	B			E		E	D	
Approach Delay (s)		13.6			10.6			55.8			51.5	
Approach LOS		B			B			E			D	

Intersection Summary				
HCM Average Control Delay	18.3	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.79			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	85.0%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1260	532	88	8
Act Effct Green (s)	104.2	104.2	10.5	10.5
Actuated g/C Ratio	0.87	0.87	0.09	0.09
v/c Ratio	0.79	0.35	0.60	0.06
Control Delay	5.1	2.1	50.9	37.0
Queue Delay	0.2	0.3	0.0	0.0
Total Delay	5.2	2.4	50.9	37.0
LOS	A	A	D	D
Approach Delay	5.2	2.4	50.9	37.0
Approach LOS	A	A	D	D
Queue Length 50th (ft)	96	51	40	3
Queue Length 95th (ft)	266	m101	11	18
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1601	1537	212	213
Starvation Cap Reductn	35	466	0	0
Spillback Cap Reductn	34	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.80	0.50	0.42	0.04

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 24 (20%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 78.1%		ICU Level of Service D	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.95			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		1848			1858			1720			1695	
Flt Permitted		1.00			0.95			0.81			0.90	
Satd. Flow (perm)		1843			1770			1442			1564	
Volume (vph)	4	1145	63	12	492	2	45	1	22	1	0	1
Peak-hour factor, PHF	0.50	0.97	0.88	0.75	0.96	0.50	0.86	0.25	0.69	0.25	0.92	0.25
Adj. Flow (vph)	8	1180	72	16	512	4	52	4	32	4	0	4
RTOR Reduction (vph)	0	1	0	0	0	0	0	18	0	0	4	0
Lane Group Flow (vph)	0	1259	0	0	532	0	0	70	0	0	4	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		102.6			102.6			9.4			9.4	
Effective Green, g (s)		102.6			102.6			9.4			9.4	
Actuated g/C Ratio		0.86			0.86			0.08			0.08	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1576			1513			113			123	
v/s Ratio Prot												
v/s Ratio Perm		c0.68			0.30			c0.05			0.00	
v/c Ratio		0.80			0.35			0.62			0.04	
Uniform Delay, d1		4.0			1.8			53.6			51.1	
Progression Factor		0.40			0.70			0.85			1.00	
Incremental Delay, d2		2.7			0.5			9.5			0.1	
Delay (s)		4.3			1.8			55.1			51.2	
Level of Service		A			A			E			D	
Approach Delay (s)		4.3			1.8			55.1			51.2	
Approach LOS		A			A			E			D	

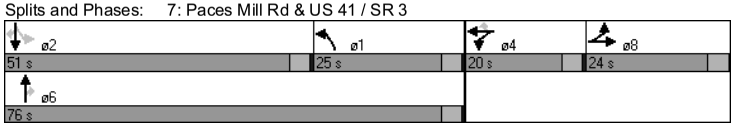
Intersection Summary			
HCM Average Control Delay	6.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1690	1583	0	1807	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.955			0.970		0.950			0.388		
Satd. Flow (perm)	1681	1690	1583	0	1807	1583	1770	3539	1583	723	3539	1583
Satd. Flow (RTOR)			533			64			32			102
Volume (vph)	359	8	684	42	23	53	203	503	19	16	1104	177
Lane Group Flow (vph)	190	200	698	0	96	64	223	565	32	24	1162	197
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	24.0	24.0	0.0	20.0	20.0	20.0	25.0	76.0	76.0	51.0	51.0	51.0
Act Effct Green (s)	18.2	18.2	120.0		11.5	11.5	21.0	78.2	78.2	53.2	53.2	53.2
Actuated g/C Ratio	0.15	0.15	1.00		0.10	0.10	0.18	0.65	0.65	0.44	0.44	0.44
v/c Ratio	0.75	0.78	0.44		0.55	0.30	0.72	0.24	0.03	0.07	0.74	0.26
Control Delay	54.8	57.6	0.7		63.1	15.3	61.0	9.7	3.3	23.1	32.5	12.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	57.6	0.7		63.1	15.3	61.0	9.7	3.3	23.1	32.5	12.2
LOS	D	E	A		E	B	E	A	A	C	C	B
Approach Delay		20.6			44.0			23.4			29.4	
Approach LOS		C			D			C			C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 60 (50%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 68.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1690	1583		1806	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.40	1.00	1.00
Satd. Flow (perm)	1681	1690	1583		1806	1583	1770	3539	1583	754	3539	1583
Volume (vph)	359	8	684	42	23	53	203	503	19	16	1104	177
Peak-hour factor, PHF	0.95	0.67	0.98	0.70	0.64	0.83	0.91	0.89	0.59	0.67	0.95	0.90
Adj. Flow (vph)	378	12	698	60	36	64	223	565	32	24	1162	197
RTOR Reduction (vph)	0	0	0	0	0	58	0	0	11	0	0	57
Lane Group Flow (vph)	190	200	698	0	96	6	223	565	21	24	1162	140
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	18.2	18.2	120.0		11.5	11.5	21.0	78.3	78.3	53.3	53.3	53.3
Effective Green, g (s)	18.2	18.2	120.0		11.5	11.5	21.0	78.3	78.3	53.3	53.3	53.3
Actuated g/C Ratio	0.15	0.15	1.00		0.10	0.10	0.18	0.65	0.65	0.44	0.44	0.44
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	255	256	1583		173	152	310	2309	1033	335	1572	703
v/s Ratio Prot	0.11	c0.12			0.05		c0.13	0.16			c0.33	
v/s Ratio Perm			c0.44			0.00			0.01	0.03		0.09
v/c Ratio	0.75	0.78	0.44		0.55	0.04	0.72	0.24	0.02	0.07	0.74	0.20
Uniform Delay, d1	48.7	49.0	0.0		51.8	49.2	46.7	8.6	7.3	19.1	27.6	20.3
Progression Factor	0.82	0.83	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.2	11.9	0.7		3.8	0.1	7.8	0.3	0.0	0.4	3.2	0.6
Delay (s)	49.4	52.4	0.7		55.6	49.4	54.5	8.9	7.4	19.6	30.8	21.0
Level of Service	D	D	A		E	D	D	A	A	B	C	C
Approach Delay (s)		18.7			53.1			21.2			29.2	
Approach LOS		B			D			C			C	

Intersection Summary					
HCM Average Control Delay	25.1	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.70				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	68.6%	ICU Level of Service		C	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1839	0	1770	1863	1770	1583
Flt Permitted			0.147		0.950	
Satd. Flow (perm)	1839	0	274	1863	1770	1583
Satd. Flow (RTOR)	6					325
Volume (vph)	500	51	124	253	72	608
Lane Group Flow (vph)	641	0	148	288	80	633
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	57.0	0.0	13.0	70.0	50.0	50.0
Act Effct Green (s)	53.3		66.0	66.0	46.0	46.0
Actuated g/C Ratio	0.44		0.55	0.55	0.38	0.38
v/c Ratio	0.78		0.57	0.28	0.12	0.78
Control Delay	35.7		22.3	15.3	24.6	23.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	35.7		22.3	15.3	24.6	23.2
LOS	D		C	B	C	C
Approach Delay	35.7			17.7	23.4	
Approach LOS	D			B	C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 73.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1839		1770	1863	1770	1583
Flt Permitted	1.00		0.15	1.00	0.95	1.00
Satd. Flow (perm)	1839		280	1863	1770	1583
Volume (vph)	500	51	124	253	72	608
Peak-hour factor, PHF	0.86	0.85	0.84	0.88	0.90	0.96
Adj. Flow (vph)	581	60	148	288	80	633
RTOR Reduction (vph)	3	0	0	0	0	200
Lane Group Flow (vph)	638	0	148	288	80	433
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	53.3		66.0	66.0	46.0	46.0
Effective Green, g (s)	53.3		66.0	66.0	46.0	46.0
Actuated g/C Ratio	0.44		0.55	0.55	0.38	0.38
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	817		262	1025	679	607
v/s Ratio Prot	c0.35		c0.04	0.15	0.05	
v/s Ratio Perm			0.27			c0.27
v/c Ratio	0.78		0.56	0.28	0.12	0.71
Uniform Delay, d1	28.4		20.2	14.4	23.9	31.4
Progression Factor	0.98		1.00	1.00	1.00	1.00
Incremental Delay, d2	7.3		2.8	0.7	0.4	7.0
Delay (s)	35.1		23.0	15.1	24.2	38.4
Level of Service	D		C	B	C	D
Approach Delay (s)	35.1			17.8	36.8	
Approach LOS	D			B	D	

Intersection Summary			
HCM Average Control Delay	31.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	841	389	380	327	16
Act Effct Green (s)	81.9	81.9	81.9	30.1	30.1
Actuated g/C Ratio	0.68	0.68	0.68	0.25	0.25
v/c Ratio	0.67	0.32	0.42	0.88	0.04
Control Delay	9.1	0.8	14.0	64.8	20.4
Queue Delay	1.9	0.5	0.0	0.0	0.0
Total Delay	11.1	1.3	14.0	64.8	20.4
LOS	B	A	B	E	C
Approach Delay	8.0		14.0	64.8	20.4
Approach LOS	A		B	E	C
Queue Length 50th (ft)	178	1	91	231	5
Queue Length 95th (ft)	498	m13	m357	205	16
Internal Link Dist (ft)	399		3444	602	274
Turn Bay Length (ft)					
Base Capacity (vph)	1264	1202	904	485	549
Starvation Cap Reductn	265	420	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.50	0.42	0.67	0.03

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 44 (37%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 18.8		Intersection LOS: B	
Intersection Capacity Utilization 72.4%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.96			0.93	
Flt Protected		1.00	1.00		1.00			0.97			0.99	
Satd. Flow (prot)		1861	1583		1841			1729			1716	
Flt Permitted		0.99	1.00		0.86			0.79			0.93	
Satd. Flow (perm)		1851	1583		1595			1415			1623	
Volume (vph)	7	771	373	26	301	11	198	8	88	3	3	5
Peak-hour factor, PHF	0.58	0.93	0.96	0.72	0.93	0.55	0.92	0.67	0.88	0.75	0.75	0.62
Adj. Flow (vph)	12	829	389	36	324	20	215	12	100	4	4	8
RTOR Reduction (vph)	0	0	121	0	1	0	0	15	0	0	6	0
Lane Group Flow (vph)	0	841	268	0	379	0	0	312	0	0	10	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		81.9	81.9		81.9			30.1			30.1	
Effective Green, g (s)		81.9	81.9		81.9			30.1			30.1	
Actuated g/C Ratio		0.68	0.68		0.68			0.25			0.25	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1263	1080		1089			355			407	
v/s Ratio Prot												
v/s Ratio Perm		c0.45	0.17		0.24			c0.22			0.01	
v/c Ratio		0.67	0.25		0.35			0.88			0.02	
Uniform Delay, d1		11.1	7.3		7.9			43.2			33.9	
Progression Factor		0.56	0.33		1.28			1.00			1.00	
Incremental Delay, d2		1.7	0.3		0.7			21.0			0.0	
Delay (s)		7.9	2.8		10.8			64.2			33.9	
Level of Service		A	A		B			E			C	
Approach Delay (s)		6.3			10.8			64.2			33.9	
Approach LOS		A			B			E			C	

Intersection Summary					
HCM Average Control Delay		17.1	HCM Level of Service		B
HCM Volume to Capacity ratio		0.72			
Actuated Cycle Length (s)		120.0	Sum of lost time (s)		8.0
Intersection Capacity Utilization		72.4%	ICU Level of Service		C
Analysis Period (min)		15			

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	68	40	40
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	13.3%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	39	16	2	30	28	4
Peak Hour Factor	0.81	0.80	0.50	0.83	0.88	0.50
Hourly flow rate (vph)	48	20	4	36	32	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			68		102	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			68		102	58
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		96	99
cM capacity (veh/h)			1533		894	1008

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	68	40	40
Volume Left	0	4	32
Volume Right	20	0	8
cSH	1700	1533	914
Volume to Capacity	0.04	0.00	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.8	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.1
Approach LOS			A

Intersection Summary				
Average Delay		2.7		
Intersection Capacity Utilization		13.3%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	8	12	68	16	76	1606	497
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

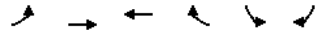
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	0	7	46	1	9	67	1237	277	20	434	9
Peak Hour Factor	0.50	0.92	0.58	0.72	0.25	0.56	0.88	0.95	0.91	0.71	0.95	0.75
Hourly flow rate (vph)	8	0	12	64	4	16	76	1302	304	28	457	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.74	0.74		0.74	0.74	0.74				0.74		
vC, conflicting volume	1325	2278	234	1891	2132	803	469			1607		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1092	2373	234	1854	2177	392	469			1471		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	98	0	86	96	93			92		
cM capacity (veh/h)	96	22	767	30	29	452	1089			338		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	8	12	84	76	868	738	257	240
Volume Left	8	0	64	76	0	0	28	0
Volume Right	0	12	16	0	0	304	0	12
cSH	96	767	36	1089	1700	1700	338	1700
Volume to Capacity	0.08	0.02	2.33	0.07	0.51	0.43	0.08	0.14
Queue Length 95th (ft)	7	1	234	6	0	0	7	0
Control Delay (s)	45.7	9.8	842.4	8.6	0.0	0.0	3.2	0.0
Lane LOS	E	A	F	A			A	
Approach Delay (s)	24.1		842.4	0.4			1.7	
Approach LOS	C		F					

Intersection Summary					
Average Delay	31.8				
Intersection Capacity Utilization	71.6%	ICU Level of Service		C	
Analysis Period (min)	15				

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	324	63	9
Sign Control	Free	Free	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	32.5%	ICU Level of Service A	
Analysis Period (min)	15		



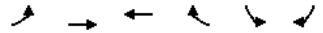
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	64	234	50	8	4	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	254	54	9	4	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	63				452	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	63				452	59
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				99	99
cM capacity (veh/h)	1540				540	1007

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	324	63	10
Volume Left	70	0	4
Volume Right	0	9	5
cSH	1540	1700	727
Volume to Capacity	0.05	0.04	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	1.9	0.0	10.0
Lane LOS	A		B
Approach Delay (s)	1.9	0.0	10.0
Approach LOS			B

Intersection Summary				
Average Delay		1.8		
Intersection Capacity Utilization		32.5%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	256	59	12
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	29.2%	ICU Level of Service A
Analysis Period (min)	15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	75	160	51	4	3	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	174	55	4	3	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60				395	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60				395	58
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				99	99
cM capacity (veh/h)	1544				578	1009

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	255	60	12
Volume Left	82	0	3
Volume Right	0	4	9
cSH	1544	1700	838
Volume to Capacity	0.05	0.04	0.01
Queue Length 95th (ft)	4	0	1
Control Delay (s)	2.7	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	2.7	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	29.2%	ICU Level of Service	A
Analysis Period (min)	15		

Existing PM Intersection Analysis

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1156	371	678	860	549	877
Act Effct Green (s)	43.5	43.5	28.9	76.4	35.6	35.6
Actuated g/C Ratio	0.36	0.36	0.24	0.64	0.30	0.30
v/c Ratio	0.42	0.46	0.82	0.27	0.37	0.86
Control Delay	31.5	5.6	42.0	2.0	33.2	36.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	5.6	42.0	2.0	33.2	36.3
LOS	C	A	D	A	C	D
Approach Delay	25.2			19.6		
Approach LOS	C			B		
Queue Length 50th (ft)	173	0	232	8	117	261
Queue Length 95th (ft)	229	79	114	24	138	328
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	2732	810	1001	3237	1788	1171
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.46	0.68	0.27	0.31	0.75

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 75 (63%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 26.4		Intersection LOS: C	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1110	341	644	826	0	0	0	0	533	0	807
Peak-hour factor, PHF	0.92	0.96	0.92	0.95	0.96	0.92	0.92	0.92	0.92	0.97	0.93	0.92
Adj. Flow (vph)	0	1156	371	678	860	0	0	0	0	549	0	877
RTOR Reduction (vph)	0	0	237	0	0	0	0	0	0	0	0	188
Lane Group Flow (vph)	0	1156	134	678	860	0	0	0	0	549	0	689
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		43.5	43.5	28.9	76.4					35.6		35.6
Effective Green, g (s)		43.5	43.5	28.9	76.4					35.6		35.6
Actuated g/C Ratio		0.36	0.36	0.24	0.64					0.30		0.30
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		2735	574	827	3237					1480		827
v/s Ratio Prot		c0.15		c0.20	0.17					0.11		
v/s Ratio Perm			0.08									c0.25
v/c Ratio		0.42	0.23	0.82	0.27					0.37		0.83
Uniform Delay, d1		28.8	26.6	43.1	9.5					33.4		39.4
Progression Factor		1.00	1.00	0.79	0.17					1.00		1.00
Incremental Delay, d2		0.5	1.0	5.8	0.2					0.2		7.2
Delay (s)		29.3	27.6	40.0	1.8					33.5		46.6
Level of Service		C	C	D	A					C		D
Approach Delay (s)		28.9			18.6			0.0			41.6	
Approach LOS		C			B			A			D	

Intersection Summary					
HCM Average Control Delay	29.4	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.66				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	65.8%	ICU Level of Service		C	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	670	1036	1579	409	123	110	446
Act Effct Green (s)	31.9	97.1	61.1	61.1	14.9	14.9	14.9
Actuated g/C Ratio	0.27	0.81	0.51	0.51	0.12	0.12	0.12
v/c Ratio	0.73	0.25	0.45	0.50	0.59	0.62	0.50
Control Delay	32.1	8.3	13.0	5.0	60.0	63.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	8.3	13.0	5.0	60.0	63.6	6.3
LOS	C	A	B	A	E	E	A
Approach Delay		17.6	11.4			25.4	
Approach LOS		B	B			C	
Queue Length 50th (ft)	201	197	163	81	95	101	1
Queue Length 95th (ft)	257	246	m215	m113	153	166	33
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1099	4114	3521	814	336	287	1169
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.25	0.45	0.50	0.37	0.38	0.38

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 31 (26%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 16.0		Intersection LOS: B	
Intersection Capacity Utilization 65.8%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.97	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	3433	5085			6843	1203	1681	1433	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	3433	5085			6843	1203	1681	1433	4085			
Volume (vph)	630	984	0	0	1180	729	212	0	419	0	0	0
Peak-hour factor, PHF	0.94	0.95	0.92	0.92	0.96	0.96	0.91	0.92	0.94	0.92	0.92	0.92
Adj. Flow (vph)	670	1036	0	0	1229	759	233	0	446	0	0	0
RTOR Reduction (vph)	0	0	0	0	34	200	0	0	385	0	0	0
Lane Group Flow (vph)	670	1036	0	0	1545	209	123	110	61	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	31.9	97.1			61.2	61.2	14.9	14.9	14.9			
Effective Green, g (s)	31.9	97.1			61.2	61.2	14.9	14.9	14.9			
Actuated g/C Ratio	0.27	0.81			0.51	0.51	0.12	0.12	0.12			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	913	4115			3490	614	209	178	507			
v/s Ratio Prot	c0.20	0.20			c0.23		0.07	c0.08				
v/s Ratio Perm						0.17			0.01			
v/c Ratio	0.73	0.25			0.44	0.34	0.59	0.62	0.12			
Uniform Delay, d1	40.2	2.7			18.6	17.4	49.7	49.9	46.7			
Progression Factor	0.69	2.63			0.65	1.44	1.00	1.00	1.00			
Incremental Delay, d2	2.9	0.1			0.3	1.0	4.2	6.3	0.1			
Delay (s)	30.6	7.4			12.5	26.2	53.8	56.1	46.8			
Level of Service	C	A			B	C	D	E	D			
Approach Delay (s)		16.5			15.3			49.6			0.0	
Approach LOS		B			B			D			A	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	357	510	602	447	1052	612	414	265	176	824	549
Act Effct Green (s)	12.6	20.0	20.0	31.0	38.4	22.0	36.7	71.7	16.3	31.0	47.6
Actuated g/C Ratio	0.10	0.17	0.17	0.26	0.32	0.18	0.31	0.60	0.14	0.26	0.40
v/c Ratio	0.68	0.86	0.64	0.98	0.65	0.97	0.38	0.26	0.73	1.00	0.50
Control Delay	69.6	52.1	7.2	74.5	28.4	78.8	34.8	6.0	67.2	74.8	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	52.1	7.2	74.5	28.4	78.8	34.8	6.0	67.2	74.8	27.0
LOS	E	D	A	E	C	E	C	A	E	E	C
Approach Delay		38.0			42.2		49.7			57.0	
Approach LOS		D			D		D			E	
Queue Length 50th (ft)	102	198	26	331	242	245	133	38	132	371	169
Queue Length 95th (ft)	128	#275	34	#557	282	#363	182	86	202	#525	229
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	541	590	939	457	1613	629	1083	1005	295	828	1111
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.86	0.64	0.98	0.65	0.97	0.38	0.26	0.60	1.00	0.49

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 46.8		Intersection LOS: D	
Intersection Capacity Utilization 90.1%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4945		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4945		3433	3539	1583	1770	3204	2723
Volume (vph)	332	479	572	407	816	181	551	364	244	157	799	505
Peak-hour factor, PHF	0.93	0.94	0.95	0.91	0.95	0.94	0.90	0.88	0.92	0.89	0.97	0.92
Adj. Flow (vph)	357	510	602	447	859	193	612	414	265	176	824	549
RTOR Reduction (vph)	0	0	474	0	30	0	0	0	64	0	0	24
Lane Group Flow (vph)	357	510	128	447	1022	0	612	414	201	176	824	525
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	12.6	20.0	20.0	31.0	38.4		22.0	36.7	67.7	16.3	31.0	43.6
Effective Green, g (s)	12.6	20.0	20.0	31.0	38.4		22.0	36.7	67.7	16.3	31.0	43.6
Actuated g/C Ratio	0.10	0.17	0.17	0.26	0.32		0.18	0.31	0.56	0.14	0.26	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	524	590	465	457	1582		629	1082	946	240	828	1080
v/s Ratio Prot	0.07	c0.14		c0.25	0.21		c0.18	0.12	0.05	0.10	c0.26	0.05
v/s Ratio Perm			0.05						0.07			0.14
v/c Ratio	0.68	0.86	0.27	0.98	0.65		0.97	0.38	0.21	0.73	1.00	0.49
Uniform Delay, d1	51.8	48.7	43.7	44.2	35.0		48.7	32.7	12.9	49.8	44.4	29.5
Progression Factor	1.21	0.75	0.78	0.86	0.78		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.5	15.0	1.4	34.6	1.9		29.0	0.2	0.1	11.0	29.9	0.3
Delay (s)	66.2	51.3	35.4	72.4	29.4		77.7	33.0	13.1	60.8	74.3	29.9
Level of Service	E	D	D	E	C		E	C	B	E	E	C
Approach Delay (s)		48.4			42.2			50.1			57.0	
Approach LOS		D			D			D			E	

Intersection Summary					
HCM Average Control Delay	49.5	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.96				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	90.1%	ICU Level of Service		E	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	773	8	1188	12	8	64	232
Act Effct Green (s)	100.7	99.6	100.8	99.6	10.4	10.4	10.4	10.4
Actuated g/C Ratio	0.84	0.83	0.84	0.83	0.09	0.09	0.09	0.09
v/c Ratio	0.06	0.26	0.02	0.41	0.18	0.02	0.52	0.58
Control Delay	1.2	1.9	1.5	2.4	54.8	0.0	66.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	1.9	1.5	2.4	54.8	0.0	66.9	8.1
LOS	A	A	A	A	D	A	E	A
Approach Delay		1.8		2.4		32.9		20.8
Approach LOS		A		A		C		C
Queue Length 50th (ft)	1	10	1	68	9	0	48	0
Queue Length 95th (ft)	m1	m222	m1	130	23	0	91	31
Internal Link Dist (ft)		1091		72		476		222
Turn Bay Length (ft)	90		65		50		55	
Base Capacity (vph)	431	2937	626	2933	197	667	350	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.26	0.01	0.41	0.06	0.01	0.18	0.38

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 57 (48%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

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

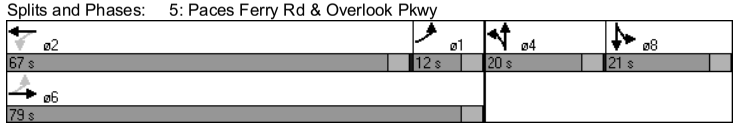
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539		1770	3532		1770	1583		1770	1583	
Flt Permitted	0.22	1.00		0.35	1.00		0.38	1.00		0.75	1.00	
Satd. Flow (perm)	404	3539		648	3532		716	1583		1402	1583	
Volume (vph)	13	742	0	4	1125	11	9	0	6	57	0	213
Peak-hour factor, PHF	0.81	0.96	0.92	0.50	0.96	0.69	0.75	0.92	0.75	0.89	0.92	0.92
Adj. Flow (vph)	16	773	0	8	1172	16	12	0	8	64	0	232
RTOR Reduction (vph)	0	0	0	0	0	0	0	7	0	0	212	0
Lane Group Flow (vph)	16	773	0	8	1188	0	12	1	0	64	20	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	97.5	96.4		97.7	96.5		10.4	10.4		10.4	10.4	
Effective Green, g (s)	97.5	96.4		97.7	96.5		10.4	10.4		10.4	10.4	
Actuated g/C Ratio	0.81	0.80		0.81	0.80		0.09	0.09		0.09	0.09	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	341	2843		539	2840		62	137		122	137	
v/s Ratio Prot	c0.00	0.22		0.00	c0.34			0.00			0.01	
v/s Ratio Perm	0.04			0.01			0.02			c0.05		
v/c Ratio	0.05	0.27		0.01	0.42		0.19	0.01		0.52	0.15	
Uniform Delay, d1	2.4	3.0		2.1	3.5		50.9	50.1		52.4	50.7	
Progression Factor	0.43	0.61		0.80	0.66		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.2		0.0	0.3		1.5	0.0		4.0	0.5	
Delay (s)	1.1	2.0		1.7	2.6		52.4	50.1		56.5	51.2	
Level of Service	A	A		A	A		D	D		E	D	
Approach Delay (s)		2.0			2.6			51.5			52.3	
Approach LOS		A			A			D			D	

Intersection Summary					
HCM Average Control Delay	9.2	HCM Level of Service		A	
HCM Volume to Capacity ratio	0.41				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	51.3%	ICU Level of Service		A	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1850	0	1770	1831	0	0	1715	0	1770	1587	0
Flt Permitted	0.060			0.190				0.970		0.950		
Satd. Flow (perm)	112	1850	0	354	1831	0	0	1715	0	1770	1587	0
Satd. Flow (RTOR)		4			8			21			304	
Volume (vph)	92	709	25	18	873	95	38	0	24	220	2	291
Lane Group Flow (vph)	100	782	0	28	1012	0	0	84	0	253	359	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	12.0	79.0	0.0	67.0	67.0	0.0	20.0	20.0	0.0	21.0	21.0	0.0
Act Effct Green (s)	77.7	77.7		65.7	65.7			9.7		22.4	22.4	
Actuated g/C Ratio	0.65	0.65		0.55	0.55			0.08		0.19	0.19	
v/c Ratio	0.55	0.65		0.14	1.01			0.53		0.76	0.66	
Control Delay	32.2	8.2		15.1	52.1			50.9		62.9	15.4	
Queue Delay	0.0	0.0		0.0	4.3			0.0		0.0	0.0	
Total Delay	32.2	8.2		15.1	56.4			50.9		62.9	15.4	
LOS	C	A		B	E			D		E	B	
Approach Delay		10.9			55.3			50.9			35.0	
Approach LOS		B			E			D			C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20 (17%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 35.5		Intersection LOS: D	
Intersection Capacity Utilization 91.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98			0.95		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1770	1850		1770	1832			1714		1770	1586	
Flt Permitted	0.06	1.00		0.20	1.00			0.97		0.95	1.00	
Satd. Flow (perm)	108	1850		381	1832			1714		1770	1586	
Volume (vph)	92	709	25	18	873	95	38	0	24	220	2	291
Peak-hour factor, PHF	0.92	0.95	0.69	0.64	0.97	0.85	0.73	0.92	0.75	0.87	0.50	0.82
Adj. Flow (vph)	100	746	36	28	900	112	52	0	32	253	4	355
RTOR Reduction (vph)	0	1	0	0	4	0	0	19	0	0	247	0
Lane Group Flow (vph)	100	781	0	28	1008	0	0	65	0	253	112	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	77.0	77.0		65.0	65.0			8.6		22.4	22.4	
Effective Green, g (s)	77.0	77.0		65.0	65.0			8.6		22.4	22.4	
Actuated g/C Ratio	0.64	0.64		0.54	0.54			0.07		0.19	0.19	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	180	1187		206	992			123		330	296	
v/s Ratio Prot	0.04	c0.42			c0.55			c0.04		c0.14	0.07	
v/s Ratio Perm	0.32			0.07								
v/c Ratio	0.56	0.66		0.14	1.02			0.52		0.77	0.38	
Uniform Delay, d1	50.8	13.3		13.6	27.5			53.7		46.3	42.7	
Progression Factor	0.63	0.39		0.89	0.93			1.00		1.00	1.00	
Incremental Delay, d2	3.6	2.8		1.0	28.4			4.0		10.2	0.8	
Delay (s)	35.6	8.0		13.2	53.9			57.7		56.5	43.5	
Level of Service	D	A		B	D			E		E	D	
Approach Delay (s)		11.1			52.8			57.7			48.9	
Approach LOS		B			D			E			D	

Intersection Summary					
HCM Average Control Delay	38.0	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.88				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	91.8%	ICU Level of Service		F	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	954	936	180	20
Act Effct Green (s)	93.3	93.3	18.7	18.7
Actuated g/C Ratio	0.78	0.78	0.16	0.16
v/c Ratio	0.70	0.67	0.82	0.08
Control Delay	7.6	6.4	72.5	19.9
Queue Delay	0.6	4.7	0.6	0.0
Total Delay	8.2	11.0	73.1	19.9
LOS	A	B	E	B
Approach Delay	8.2	11.0	73.1	19.9
Approach LOS	A	B	E	B
Queue Length 50th (ft)	136	225	116	3
Queue Length 95th (ft)	m174	m333	39	24
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1365	1395	313	370
Starvation Cap Reductn	139	380	0	0
Spillback Cap Reductn	26	54	21	25
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.78	0.92	0.62	0.06

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 55 (46%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 77.5%		ICU Level of Service D	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			1.00			0.98			0.89	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1825			1857			1752			1645	
Flt Permitted		0.96			0.96			0.75			0.96	
Satd. Flow (perm)		1752			1794			1368			1597	
Volume (vph)	15	762	119	17	828	7	141	1	20	2	0	8
Peak-hour factor, PHF	0.54	0.96	0.90	0.71	0.92	0.58	0.95	0.25	0.71	0.50	0.92	0.50
Adj. Flow (vph)	28	794	132	24	900	12	148	4	28	4	0	16
RTOR Reduction (vph)	0	4	0	0	0	0	0	6	0	0	14	0
Lane Group Flow (vph)	0	950	0	0	936	0	0	174	0	0	6	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		93.3			93.3			18.7			18.7	
Effective Green, g (s)		93.3			93.3			18.7			18.7	
Actuated g/C Ratio		0.78			0.78			0.16			0.16	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1362			1395			213			249	
v/s Ratio Prot												
v/s Ratio Perm		c0.54			0.52			c0.13			0.00	
v/c Ratio		0.70			0.67			0.82			0.03	
Uniform Delay, d1		6.5			6.2			49.0			42.9	
Progression Factor		0.66			0.72			0.97			1.00	
Incremental Delay, d2		2.2			0.8			20.9			0.0	
Delay (s)		6.5			5.2			68.4			43.0	
Level of Service		A			A			E			D	
Approach Delay (s)		6.5			5.2			68.4			43.0	
Approach LOS		A			A			E			D	

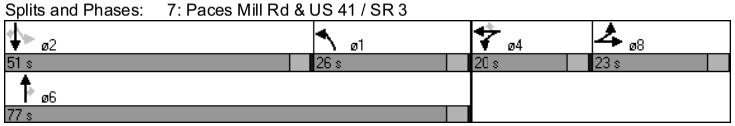
Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1695	1583	0	1825	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.958			0.980		0.950			0.103		
Satd. Flow (perm)	1681	1695	1583	0	1825	1583	1770	3539	1583	192	3539	1583
Satd. Flow (RTOR)			206			28			56			244
Volume (vph)	371	22	246	18	23	20	264	1226	44	42	728	286
Lane Group Flow (vph)	214	226	267	0	48	28	284	1291	56	56	766	311
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	23.0	23.0	0.0	20.0	20.0	20.0	26.0	77.0	77.0	51.0	51.0	51.0
Act Effct Green (s)	21.2	21.2	120.0		8.5	8.5	22.0	80.2	80.2	54.2	54.2	54.2
Actuated g/C Ratio	0.18	0.18	1.00		0.07	0.07	0.18	0.67	0.67	0.45	0.45	0.45
v/c Ratio	0.72	0.75	0.17		0.37	0.20	0.87	0.55	0.05	0.64	0.48	0.37
Control Delay	52.1	54.4	0.2		60.5	20.9	74.6	12.8	2.6	67.5	25.9	7.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	54.4	0.2		60.5	20.9	74.6	12.8	2.6	67.5	25.9	7.3
LOS	D	D	A		E	C	E	B	A	E	C	A
Approach Delay		33.2			45.9			23.2			22.8	
Approach LOS		C			D			C			C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 118 (98%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 64.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3



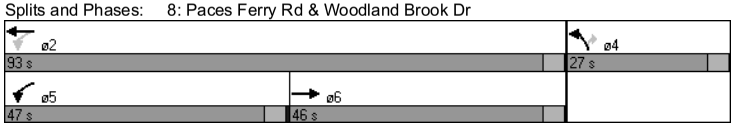
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1695	1583		1825	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.13	1.00	1.00
Satd. Flow (perm)	1681	1695	1583		1825	1583	1770	3539	1583	245	3539	1583
Volume (vph)	371	22	246	18	23	20	264	1226	44	42	728	286
Peak-hour factor, PHF	0.90	0.79	0.92	0.90	0.82	0.71	0.93	0.95	0.79	0.75	0.95	0.92
Adj. Flow (vph)	412	28	267	20	28	28	284	1291	56	56	766	311
RTOR Reduction (vph)	0	0	0	0	0	26	0	0	19	0	0	135
Lane Group Flow (vph)	214	226	267	0	48	2	284	1291	37	56	766	176
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	21.2	21.2	120.0		7.4	7.4	22.0	79.4	79.4	53.4	53.4	53.4
Effective Green, g (s)	21.2	21.2	120.0		7.4	7.4	22.0	79.4	79.4	53.4	53.4	53.4
Actuated g/C Ratio	0.18	0.18	1.00		0.06	0.06	0.18	0.66	0.66	0.44	0.44	0.44
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	297	299	1583		113	98	325	2342	1047	109	1575	704
v/s Ratio Prot	0.13	c0.13			c0.03		c0.16	c0.36			0.22	
v/s Ratio Perm			0.17			0.00			0.02	0.23		0.11
v/c Ratio	0.72	0.76	0.17		0.42	0.02	0.87	0.55	0.04	0.51	0.49	0.25
Uniform Delay, d1	46.6	46.9	0.0		54.2	52.9	47.7	10.8	7.0	24.0	23.6	20.8
Progression Factor	0.85	0.85	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.6	9.5	0.2		2.6	0.1	21.9	0.9	0.1	16.2	1.1	0.8
Delay (s)	47.1	49.3	0.2		56.8	53.0	69.6	11.8	7.1	40.2	24.7	21.6
Level of Service	D	D	A		E	D	E	B	A	D	C	C
Approach Delay (s)		30.1			55.4			21.7			24.6	
Approach LOS		C			E			C			C	

Intersection Summary					
HCM Average Control Delay	25.0	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.66				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	64.7%	ICU Level of Service		C	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1812	0	1770	1863	1770	1583
Flt Permitted			0.296		0.950	
Satd. Flow (perm)	1812	0	551	1863	1770	1583
Satd. Flow (RTOR)	12					128
Volume (vph)	289	68	440	462	41	114
Lane Group Flow (vph)	377	0	473	513	44	128
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	46.0	0.0	47.0	93.0	27.0	27.0
Act Effct Green (s)	67.0		89.0	89.0	23.0	23.0
Actuated g/C Ratio	0.56		0.74	0.74	0.19	0.19
v/c Ratio	0.37		0.80	0.37	0.13	0.31
Control Delay	15.0		17.8	6.4	41.5	9.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	15.0		17.8	6.4	41.5	9.2
LOS	B		B	A	D	A
Approach Delay	15.0			11.9	17.5	
Approach LOS	B			B	B	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 37 (31%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 57.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1812		1770	1863	1770	1583
Flt Permitted	1.00		0.43	1.00	0.95	1.00
Satd. Flow (perm)	1812		804	1863	1770	1583
Volume (vph)	289	68	440	462	41	114
Peak-hour factor, PHF	0.96	0.90	0.93	0.90	0.93	0.89
Adj. Flow (vph)	301	76	473	513	44	128
RTOR Reduction (vph)	5	0	0	0	0	103
Lane Group Flow (vph)	372	0	473	513	44	25
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	67.0		89.0	89.0	23.0	23.0
Effective Green, g (s)	67.0		89.0	89.0	23.0	23.0
Actuated g/C Ratio	0.56		0.74	0.74	0.19	0.19
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1012		741	1382	339	303
v/s Ratio Prot	0.21		c0.10	0.28	c0.02	
v/s Ratio Perm			c0.38			0.02
v/c Ratio	0.37		0.64	0.37	0.13	0.08
Uniform Delay, d1	14.7		7.0	5.5	40.2	39.8
Progression Factor	0.90		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0		1.8	0.8	0.8	0.5
Delay (s)	14.3		8.8	6.3	41.0	40.3
Level of Service	B		A	A	D	D
Approach Delay (s)	14.3			7.5	40.5	
Approach LOS	B			A	D	

Intersection Summary					
HCM Average Control Delay	12.9	HCM Level of Service	B		
HCM Volume to Capacity ratio	0.53				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	57.1%	ICU Level of Service	B		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	504	273	606	531	32
Act Effct Green (s)	64.0	64.0	64.0	48.0	48.0
Actuated g/C Ratio	0.53	0.53	0.53	0.40	0.40
v/c Ratio	0.52	0.28	0.96	0.99	0.05
Control Delay	25.4	6.6	42.2	71.3	20.2
Queue Delay	3.1	0.0	13.8	0.0	0.0
Total Delay	28.5	6.6	56.0	71.3	20.2
LOS	C	A	E	E	C
Approach Delay	20.8		56.0	71.3	20.3
Approach LOS	C		E	E	C
Queue Length 50th (ft)	260	26	486	398	13
Queue Length 95th (ft)	m423	m96	m#666	230	14
Internal Link Dist (ft)	399		3444	602	274
Turn Bay Length (ft)					
Base Capacity (vph)	978	972	634	539	703
Starvation Cap Reductn	360	0	0	0	0
Spillback Cap Reductn	0	0	40	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.82	0.28	1.02	0.99	0.05

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 15 (13%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 45.5		Intersection LOS: D	
Intersection Capacity Utilization 97.9%		ICU Level of Service F	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		1.00			0.98			0.98	
Flt Protected		1.00	1.00		0.99			0.96			0.99	
Satd. Flow (prot)		1861	1583		1843			1758			1820	
Flt Permitted		0.98	1.00		0.64			0.73			0.96	
Satd. Flow (perm)		1833	1583		1189			1340			1751	
Volume (vph)	7	458	259	108	453	3	421	4	52	3	10	3
Peak-hour factor, PHF	0.58	0.93	0.95	0.90	0.94	0.75	0.91	0.50	0.87	0.75	0.42	0.75
Adj. Flow (vph)	12	492	273	120	482	4	463	8	60	4	24	4
RTOR Reduction (vph)	0	0	127	0	0	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	504	146	0	606	0	0	527	0	0	30	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		64.0	64.0		64.0			48.0			48.0	
Effective Green, g (s)		64.0	64.0		64.0			48.0			48.0	
Actuated g/C Ratio		0.53	0.53		0.53			0.40			0.40	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		978	844		634			536			700	
v/s Ratio Prot												
v/s Ratio Perm		0.27	0.09		c0.51			c0.39			0.02	
v/c Ratio		0.52	0.17		0.96			0.98			0.04	
Uniform Delay, d1		18.0	14.4		26.7			35.6			22.0	
Progression Factor		1.30	3.58		0.64			1.00			1.00	
Incremental Delay, d2		1.4	0.3		22.9			34.5			0.0	
Delay (s)		24.8	51.9		40.1			70.1			22.0	
Level of Service		C	D		D			E			C	
Approach Delay (s)		34.3			40.1			70.1			22.0	
Approach LOS		C			D			E			C	

Intersection Summary					
HCM Average Control Delay	45.7	HCM Level of Service	D		
HCM Volume to Capacity ratio	0.97				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	97.9%	ICU Level of Service	F		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	100	80	40
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	14.9%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	39	31	2	63	27	2
Peak Hour Factor	0.65	0.78	0.25	0.88	0.75	0.50
Hourly flow rate (vph)	60	40	8	72	36	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			100		167	80
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			100		167	80
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		96	100
cM capacity (veh/h)			1493		819	980

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	100	80	40
Volume Left	0	8	36
Volume Right	40	0	4
cSH	1700	1493	832
Volume to Capacity	0.06	0.01	0.05
Queue Length 95th (ft)	0	0	4
Control Delay (s)	0.0	0.8	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.5
Approach LOS			A

Intersection Summary				
Average Delay		2.0		
Intersection Capacity Utilization		14.9%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	28	68	72	104	44	908	1357
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		

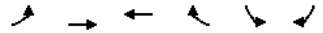
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	0	51	59	0	78	34	789	45	2	1318	4
Peak Hour Factor	0.46	0.92	0.75	0.82	0.92	0.75	0.77	0.93	0.75	0.50	0.98	0.50
Hourly flow rate (vph)	28	0	68	72	0	104	44	848	60	4	1345	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	1869	2354	676	1647	2328	454	1353			908		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1858	2385	676	1616	2357	316	1353			811		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	12	100	83	0	100	83	91			99		
cM capacity (veh/h)	32	28	396	49	29	624	505			745		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	28	68	176	44	566	343	676	680
Volume Left	28	0	72	44	0	0	4	0
Volume Right	0	68	104	0	0	60	0	8
cSH	32	396	110	505	1700	1700	745	1700
Volume to Capacity	0.88	0.17	1.61	0.09	0.33	0.20	0.01	0.40
Queue Length 95th (ft)	75	15	332	7	0	0	0	0
Control Delay (s)	301.0	16.0	380.0	12.8	0.0	0.0	0.1	0.0
Lane LOS	F	C	F	B			A	
Approach Delay (s)	99.7		380.0	0.6			0.1	
Approach LOS	F		F					

Intersection Summary					
Average Delay	29.9				
Intersection Capacity Utilization	54.6%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	68	83	66
Sign Control	Free	Free	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	16.7%	ICU Level of Service A	
Analysis Period (min)	15		



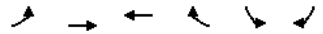
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	4	59	74	3	7	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	64	80	3	8	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	84				155	82
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	84				155	82
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	94
cM capacity (veh/h)	1513				834	978

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	68	84	65
Volume Left	4	0	8
Volume Right	0	3	58
cSH	1513	1700	958
Volume to Capacity	0.00	0.05	0.07
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.5	0.0	9.0
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.0
Approach LOS			A

Intersection Summary				
Average Delay		2.9		
Intersection Capacity Utilization		16.7%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	79	59	51
Sign Control	Free	Free	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	20.5%	ICU Level of Service A	
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	12	61	51	4	4	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	66	55	4	4	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	60				150	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	60				150	58
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	95
cM capacity (veh/h)	1544				835	1009

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	79	60	51
Volume Left	13	0	4
Volume Right	0	4	47
cSH	1544	1700	991
Volume to Capacity	0.01	0.04	0.05
Queue Length 95th (ft)	1	0	4
Control Delay (s)	1.3	0.0	8.8
Lane LOS	A		A
Approach Delay (s)	1.3	0.0	8.8
Approach LOS			A

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	20.5%	ICU Level of Service		A
Analysis Period (min)	15			

Base AM Intersection Analysis

Base 2014 AM

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1932	267	417	881	1025	1450
Act Effct Green (s)	34.0	34.0	16.0	54.0	58.0	58.0
Actuated g/C Ratio	0.28	0.28	0.13	0.45	0.48	0.48
v/c Ratio	0.90	0.42	0.91	0.39	0.42	1.02
Control Delay	48.5	6.0	71.7	9.2	20.8	57.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	6.0	71.7	9.2	20.8	57.6
LOS	D	A	E	A	C	E
Approach Delay	43.3			29.2		
Approach LOS	D			C		
Queue Length 50th (ft)	356	0	165	116	178	~643
Queue Length 95th (ft)	397	63	m#239	m146	213	#796
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	2137	640	458	2288	2412	1420
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.42	0.91	0.39	0.42	1.02

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 92 (77%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.02		
Intersection Signal Delay: 39.9	Intersection LOS: D	
Intersection Capacity Utilization 104.0%	ICU Level of Service G	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1855	254	388	819	0	0	0	0	953	0	1363
Peak-hour factor, PHF	0.92	0.96	0.95	0.93	0.93	0.92	0.92	0.92	0.92	0.93	0.92	0.94
Adj. Flow (vph)	0	1932	267	417	881	0	0	0	0	1025	0	1450
RTOR Reduction (vph)	0	0	191	0	0	0	0	0	0	0	0	73
Lane Group Flow (vph)	0	1932	76	417	881	0	0	0	0	1025	0	1377
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		34.0	34.0	16.0	54.0					58.0		58.0
Effective Green, g (s)		34.0	34.0	16.0	54.0					58.0		58.0
Actuated g/C Ratio		0.28	0.28	0.13	0.45					0.48		0.48
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		2137	449	458	2288					2412		1347
v/s Ratio Prot		c0.26		c0.12	0.17					0.21		
v/s Ratio Perm			0.05									c0.49
v/c Ratio		0.90	0.17	0.91	0.39					0.42		1.02
Uniform Delay, d1		41.4	32.4	51.3	22.0					20.2		31.0
Progression Factor		1.00	1.00	1.02	0.40					1.00		1.00
Incremental Delay, d2		6.9	0.8	17.0	0.3					0.1		30.2
Delay (s)		48.3	33.2	69.3	9.1					20.3		61.2
Level of Service		D	C	E	A					C		E
Approach Delay (s)		46.4			28.4			0.0			44.3	
Approach LOS		D			C			A			D	

Intersection Summary					
HCM Average Control Delay	41.6	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.97				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	104.0%	ICU Level of Service		G	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1145	1928	1326	553	309	279	813
Act Effct Green (s)	41.9	85.8	39.8	39.8	26.2	26.2	26.2
Actuated g/C Ratio	0.35	0.72	0.33	0.33	0.22	0.22	0.22
v/c Ratio	0.95	0.53	0.91dr	0.81	0.84	0.89	0.86
Control Delay	38.1	3.3	19.3	12.7	65.6	74.4	51.2
Queue Delay	0.0	0.2	0.0	0.4	0.0	0.0	0.0
Total Delay	38.1	3.5	19.3	13.1	65.6	74.4	51.2
LOS	D	A	B	B	E	E	D
Approach Delay		16.4	17.5			59.0	
Approach LOS		B	B			E	
Queue Length 50th (ft)	431	18	126	105	241	256	215
Queue Length 95th (ft)	m#546	20	m158	m119	#391	#446	272
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1230	3635	2309	686	378	324	973
Starvation Cap Reductn	0	635	0	13	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	0.93	0.64	0.57	0.82	0.82	0.86	0.84

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 104.0%		ICU Level of Service G	
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.			
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.94	0.85	1.00	0.99	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	3433	5085			6636	1203	1681	1431	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	3433	5085			6636	1203	1681	1431	4085			
Volume (vph)	1088	1774	0	0	697	1072	554	0	783	0	0	0
Peak-hour factor, PHF	0.95	0.92	0.92	0.92	0.90	0.97	0.96	0.92	0.95	0.92	0.92	0.92
Adj. Flow (vph)	1145	1928	0	0	774	1105	577	0	824	0	0	0
RTOR Reduction (vph)	0	0	0	0	105	286	0	2	55	0	0	0
Lane Group Flow (vph)	1145	1928	0	0	1221	267	309	277	758	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	41.9	85.8			39.9	39.9	26.2	26.2	26.2			
Effective Green, g (s)	41.9	85.8			39.9	39.9	26.2	26.2	26.2			
Actuated g/C Ratio	0.35	0.72			0.33	0.33	0.22	0.22	0.22			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1199	3636			2206	400	367	312	892			
v/s Ratio Prot	c0.33	0.38			0.18		0.18	c0.19				
v/s Ratio Perm						c0.22			0.19			
v/c Ratio	0.95	0.53			0.91dr	0.67	0.84	0.89	0.85			
Uniform Delay, d1	38.1	7.8			32.8	34.3	44.9	45.5	45.0			
Progression Factor	0.64	0.37			0.63	0.58	1.00	1.00	1.00			
Incremental Delay, d2	12.5	0.4			0.7	5.9	15.9	24.9	7.8			
Delay (s)	36.8	3.3			21.5	25.7	60.8	70.4	52.8			
Level of Service	D	A			C	C	E	E	D			
Approach Delay (s)		15.7			22.7			58.1			0.0	
Approach LOS		B			C			E			A	

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	853	1158	577	168	738	927	1248	615	200	274	369
Act Effct Green (s)	22.7	39.0	39.0	11.0	27.3	35.0	41.0	56.0	13.0	19.0	45.7
Actuated g/C Ratio	0.19	0.32	0.32	0.09	0.23	0.29	0.34	0.47	0.11	0.16	0.38
v/c Ratio	0.90	1.01	0.47	1.04	0.63	0.93	1.03	0.81	1.04	0.54	0.35
Control Delay	65.9	56.5	5.1	129.3	33.5	56.6	73.6	36.4	128.3	51.4	24.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	56.5	5.1	129.3	33.5	56.6	73.6	36.4	128.3	51.4	24.4
LOS	E	E	A	F	C	E	E	D	F	D	C
Approach Delay		48.2			51.2		59.7			57.8	
Approach LOS		D			D		E			E	
Queue Length 50th (ft)	230	~399	21	~139	187	354	~545	383	~168	116	103
Queue Length 95th (ft)	m#295	m#621	m43	#282	172	#470	#682	554	#303	167	148
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	956	1150	1218	162	1163	1030	1209	755	192	506	1070
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.01	0.47	1.04	0.63	0.90	1.03	0.81	1.04	0.54	0.34

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 54.2 Intersection LOS: D
Intersection Capacity Utilization 94.9% ICU Level of Service F
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4901		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4901		3433	3539	1583	1770	3204	2723
Volume (vph)	819	1112	542	151	532	151	899	1186	603	174	247	336
Peak-hour factor, PHF	0.96	0.96	0.94	0.90	0.95	0.85	0.97	0.95	0.98	0.87	0.90	0.91
Adj. Flow (vph)	853	1158	577	168	560	178	927	1248	615	200	274	369
RTOR Reduction (vph)	0	0	313	0	48	0	0	0	18	0	0	29
Lane Group Flow (vph)	853	1158	264	168	690	0	927	1248	597	200	274	340
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	22.7	39.0	39.0	11.0	27.3		35.0	41.0	52.0	13.0	19.0	41.7
Effective Green, g (s)	22.7	39.0	39.0	11.0	27.3		35.0	41.0	52.0	13.0	19.0	41.7
Actuated g/C Ratio	0.19	0.32	0.32	0.09	0.23		0.29	0.34	0.43	0.11	0.16	0.35
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	944	1150	906	162	1115		1001	1209	739	192	507	1037
v/s Ratio Prot	0.17	c0.33		c0.09	0.14		0.27	c0.35	0.07	c0.11	0.09	0.06
v/s Ratio Perm			0.09						0.30			0.06
v/c Ratio	0.90	1.01	0.29	1.04	0.62		0.93	1.03	0.81	1.04	0.54	0.33
Uniform Delay, d1	47.6	40.5	30.2	54.5	41.7		41.2	39.5	29.7	53.5	46.5	28.8
Progression Factor	1.15	0.75	0.63	0.91	0.80		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.5	25.1	0.6	80.2	2.5		13.9	34.5	6.5	76.3	1.2	0.2
Delay (s)	64.4	55.6	19.6	129.6	36.0		55.1	74.0	36.2	129.8	47.7	29.0
Level of Service	E	E	B	F	D		E	E	D	F	D	C
Approach Delay (s)		50.4			53.4			59.4			59.0	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	55.3	HCM Level of Service		E	
HCM Volume to Capacity ratio	1.02				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	94.9%	ICU Level of Service		F	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBT
Lane Group Flow (vph)	1652	6	830	26	10
Act Effct Green (s)	107.9	108.3	109.9	7.6	7.6
Actuated g/C Ratio	0.90	0.90	0.92	0.06	0.06
v/c Ratio	0.52	0.03	0.26	0.29	0.04
Control Delay	1.5	2.0	1.8	60.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	2.0	1.8	60.9	0.2
LOS	A	A	A	E	A
Approach Delay	1.5		1.8		44.1
Approach LOS	A		A		D
Queue Length 50th (ft)	73	1	37	20	0
Queue Length 95th (ft)	m130	m1	103	35	0
Internal Link Dist (ft)	1091		72		476
Turn Bay Length (ft)		65		50	
Base Capacity (vph)	3171	295	3240	247	435
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.02	0.26	0.11	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 2.2 Intersection LOS: A
Intersection Capacity Utilization 52.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0				
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00				
Frt		1.00		1.00	1.00		1.00	0.85				
Flt Protected		1.00		0.95	1.00		0.95	1.00				
Satd. Flow (prot)		3524		1770	3539		1770	1583				
Flt Permitted		1.00		0.12	1.00		0.76	1.00				
Satd. Flow (perm)		3524		231	3539		1410	1583				
Volume (vph)	0	1509	34	3	772	0	17	0	5	0	0	0
Peak-hour factor, PHF	0.81	0.94	0.72	0.50	0.93	0.77	0.65	0.92	0.50	0.58	0.92	0.67
Adj. Flow (vph)	0	1605	47	6	830	0	26	0	10	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	0	1651	0	6	830	0	26	0	0	0	0	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		101.5		106.7	106.7		5.3	5.3				
Effective Green, g (s)		101.5		106.7	106.7		5.3	5.3				
Actuated g/C Ratio		0.85		0.89	0.89		0.04	0.04				
Clearance Time (s)		4.0		4.0	4.0		4.0	4.0				
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0				
Lane Grp Cap (vph)		2981		221	3147		62	70				
v/s Ratio Prot		c0.47		0.00	c0.23			0.00				
v/s Ratio Perm				0.02			c0.02					
v/c Ratio		0.55		0.03	0.26		0.42	0.01				
Uniform Delay, d1		2.7		2.0	1.0		55.9	54.8				
Progression Factor		0.51		1.39	1.49		1.00	1.00				
Incremental Delay, d2		0.2		0.0	0.2		4.5	0.0				
Delay (s)		1.6		2.8	1.6		60.4	54.9				
Level of Service		A		A	A		E	D				
Approach Delay (s)		1.6			1.6			58.9			0.0	
Approach LOS		A			A			E			A	

Intersection Summary

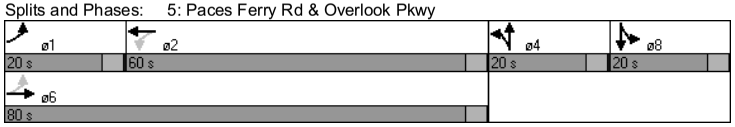
HCM Average Control Delay	2.4	HCM Level of Service	A			
HCM Volume to Capacity ratio	0.55					
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0			
Intersection Capacity Utilization	52.8%	ICU Level of Service	A			
Analysis Period (min)	15					

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1859	0	1770	1777	0	0	1653	0	1770	1591	0
Flt Permitted	0.067			0.071				0.987		0.950		
Satd. Flow (perm)	125	1859	0	132	1777	0	0	1653	0	1770	1591	0
Satd. Flow (RTOR)		1			25			47			153	
Volume (vph)	250	1394	11	3	536	207	8	0	22	209	1	139
Lane Group Flow (vph)	305	1483	0	12	832	0	0	63	0	230	157	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	20.0	80.0	0.0	60.0	60.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0
Act Effct Green (s)	80.1	80.1		57.9	57.9			7.3		22.5	22.5	
Actuated g/C Ratio	0.67	0.67		0.48	0.48			0.06		0.19	0.19	
v/c Ratio	0.92	1.20		0.19	0.96			0.43		0.69	0.37	
Control Delay	72.7	114.8		24.0	49.2			30.6		57.4	9.8	
Queue Delay	0.0	0.0		0.0	0.1			0.0		0.0	0.0	
Total Delay	72.7	114.8		24.0	49.3			30.6		57.4	9.8	
LOS	E	F		C	D			C		E	A	
Approach Delay		107.7			49.0			30.6			38.1	
Approach LOS		F			D			C			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 41 (34%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 81.3		Intersection LOS: F	
Intersection Capacity Utilization 105.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.95			0.90		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1860		1770	1777			1654		1770	1590	
Flt Permitted	0.07	1.00		0.07	1.00			0.99		0.95	1.00	
Satd. Flow (perm)	122	1860		130	1777			1654		1770	1590	
Volume (vph)	250	1394	11	3	536	207	8	0	22	209	1	139
Peak-hour factor, PHF	0.82	0.95	0.67	0.25	0.93	0.81	0.50	0.92	0.47	0.91	0.25	0.91
Adj. Flow (vph)	305	1467	16	12	576	256	16	0	47	230	4	153
RTOR Reduction (vph)	0	0	0	0	13	0	0	45	0	0	124	0
Lane Group Flow (vph)	305	1483	0	12	819	0	0	18	0	230	33	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	79.3	79.3		57.1	57.1			6.2		22.5	22.5	
Effective Green, g (s)	79.3	79.3		57.1	57.1			6.2		22.5	22.5	
Actuated g/C Ratio	0.66	0.66		0.48	0.48			0.05		0.19	0.19	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	331	1229		62	846			85		332	298	
v/s Ratio Prot	0.14	c0.80			0.46			c0.01		c0.13	0.02	
v/s Ratio Perm	0.47			0.09								
v/c Ratio	0.92	1.21		0.19	0.97			0.22		0.69	0.11	
Uniform Delay, d1	39.4	20.4		18.2	30.6			54.6		45.5	40.4	
Progression Factor	1.31	0.79		0.84	0.96			1.00		1.00	1.00	
Incremental Delay, d2	27.9	100.0		6.2	22.7			1.3		6.1	0.2	
Delay (s)	79.3	116.1		21.5	51.9			55.9		51.7	40.6	
Level of Service	E	F		C	D			E		D	D	
Approach Delay (s)		109.8			51.5			55.9			47.2	
Approach LOS		F			D			E			D	

Intersection Summary					
HCM Average Control Delay	84.9	HCM Level of Service	F		
HCM Volume to Capacity ratio	1.04				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	105.6%	ICU Level of Service	G		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1658	701	115	8
Act Effct Green (s)	99.5	99.5	12.5	12.5
Actuated g/C Ratio	0.83	0.83	0.10	0.10
v/c Ratio	1.09	0.50	0.68	0.05
Control Delay	49.9	2.8	56.0	36.0
Queue Delay	25.1	1.9	0.0	0.0
Total Delay	75.0	4.7	56.0	36.0
LOS	E	A	E	D
Approach Delay	75.0	4.7	56.0	36.0
Approach LOS	E	A	E	D
Queue Length 50th (ft)	~1447	8	65	3
Queue Length 95th (ft)	m#1387	m207	17	18
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1527	1416	209	212
Starvation Cap Reductn	31	530	0	0
Spillback Cap Reductn	78	52	1	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.14	0.79	0.55	0.04

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 16 (13%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.09		
Intersection Signal Delay: 54.1	Intersection LOS: D	
Intersection Capacity Utilization 100.5%	ICU Level of Service G	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.95			0.93	
Flt Protected		1.00			1.00			0.97			0.98	
Satd. Flow (prot)		1848			1858			1719			1695	
Flt Permitted		1.00			0.92			0.81			0.92	
Satd. Flow (perm)		1841			1709			1437			1590	
Volume (vph)	5	1507	83	16	647	3	59	1	29	1	0	1
Peak-hour factor, PHF	0.50	0.97	0.88	0.75	0.96	0.50	0.86	0.25	0.69	0.25	0.92	0.25
Adj. Flow (vph)	10	1554	94	21	674	6	69	4	42	4	0	4
RTOR Reduction (vph)	0	2	0	0	0	0	0	18	0	0	4	0
Lane Group Flow (vph)	0	1656	0	0	701	0	0	97	0	0	4	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		99.5			99.5			12.5			12.5	
Effective Green, g (s)		99.5			99.5			12.5			12.5	
Actuated g/C Ratio		0.83			0.83			0.10			0.10	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1526			1417			150			166	
v/s Ratio Prot												
v/s Ratio Perm		c0.90			0.41			c0.07			0.00	
v/c Ratio		1.09			0.49			0.65			0.03	
Uniform Delay, d1		10.2			3.0			51.6			48.3	
Progression Factor		0.53			0.69			0.85			1.00	
Incremental Delay, d2		39.8			0.4			9.1			0.1	
Delay (s)		45.2			2.5			53.0			48.4	
Level of Service		D			A			D			D	
Approach Delay (s)		45.2			2.5			53.0			48.4	
Approach LOS		D			A			D			D	

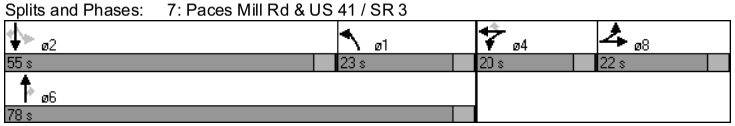
Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1690	1583	0	1807	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.955			0.970		0.950			0.306		
Satd. Flow (perm)	1681	1690	1583	0	1807	1583	1770	3539	1583	570	3539	1583
Satd. Flow (RTOR)			470			84			42			107
Volume (vph)	472	11	900	55	30	70	267	662	25	21	1453	233
Lane Group Flow (vph)	250	263	918	0	126	84	293	744	42	31	1529	259
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	22.0	22.0	0.0	20.0	20.0	20.0	23.0	78.0	78.0	55.0	55.0	55.0
Act Effct Green (s)	21.0	21.0	120.0		13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Actuated g/C Ratio	0.18	0.18	1.00		0.11	0.11	0.16	0.62	0.62	0.42	0.42	0.42
v/c Ratio	0.85	0.89	0.58		0.65	0.34	1.05	0.34	0.04	0.13	1.02	0.35
Control Delay	58.7	63.1	0.9		66.1	13.8	115.4	11.7	2.8	22.9	62.0	14.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	63.1	0.9		66.1	13.8	115.4	11.7	2.8	22.9	62.0	14.7
LOS	E	E	A		E	B	F	B	A	C	E	B
Approach Delay		22.4			45.2			39.5			54.6	
Approach LOS		C			D			D			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 57 (48%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 40.4		Intersection LOS: D	
Intersection Capacity Utilization 85.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3



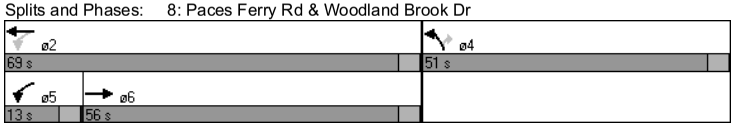
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1690	1583		1806	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1681	1690	1583		1806	1583	1770	3539	1583	569	3539	1583
Volume (vph)	472	11	900	55	30	70	267	662	25	21	1453	233
Peak-hour factor, PHF	0.95	0.67	0.98	0.70	0.64	0.83	0.91	0.89	0.59	0.67	0.95	0.90
Adj. Flow (vph)	497	16	918	79	47	84	293	744	42	31	1529	259
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	16	0	0	62
Lane Group Flow (vph)	250	263	918	0	126	9	293	744	26	31	1529	197
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	21.0	21.0	120.0		13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Effective Green, g (s)	21.0	21.0	120.0		13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Actuated g/C Ratio	0.18	0.18	1.00		0.11	0.11	0.16	0.62	0.62	0.42	0.42	0.42
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	294	296	1583		196	171	280	2182	976	242	1504	673
v/s Ratio Prot	0.15	c0.16			0.07		c0.17	0.21			c0.43	
v/s Ratio Perm			c0.58			0.01			0.02	0.05		0.12
v/c Ratio	0.85	0.89	0.58		0.64	0.05	1.05	0.34	0.03	0.13	1.02	0.29
Uniform Delay, d1	48.0	48.4	0.0		51.3	48.0	50.5	11.2	9.0	21.0	34.5	22.7
Progression Factor	0.83	0.83	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.2	17.4	0.9		7.0	0.1	66.4	0.4	0.1	1.1	27.4	1.1
Delay (s)	53.1	57.6	0.9		58.3	48.1	116.9	11.6	9.0	22.1	61.9	23.8
Level of Service	D	E	A		E	D	F	B	A	C	E	C
Approach Delay (s)		20.5			54.2			40.1			55.8	
Approach LOS		C			D			D			E	

Intersection Summary					
HCM Average Control Delay	40.9	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.93				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	85.0%	ICU Level of Service		E	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1839	0	1770	1863	1770	1583
Flt Permitted			0.071		0.950	
Satd. Flow (perm)	1839	0	132	1863	1770	1583
Satd. Flow (RTOR)	5					251
Volume (vph)	658	67	163	333	95	800
Lane Group Flow (vph)	844	0	194	378	106	833
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	56.0	0.0	13.0	69.0	51.0	51.0
Act Effct Green (s)	52.0		65.0	65.0	47.0	47.0
Actuated g/C Ratio	0.43		0.54	0.54	0.39	0.39
v/c Ratio	1.06		1.00	0.37	0.15	1.08
Control Delay	80.6		94.2	17.2	24.4	80.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	80.6		94.2	17.2	24.4	80.9
LOS	F		F	B	C	F
Approach Delay	80.6			43.3	74.5	
Approach LOS	F			D	E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 21 (18%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 69.1		Intersection LOS: E	
Intersection Capacity Utilization 94.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1839		1770	1863	1770	1583
Flt Permitted	1.00		0.07	1.00	0.95	1.00
Satd. Flow (perm)	1839		133	1863	1770	1583
Volume (vph)	658	67	163	333	95	800
Peak-hour factor, PHF	0.86	0.85	0.84	0.88	0.90	0.96
Adj. Flow (vph)	765	79	194	378	106	833
RTOR Reduction (vph)	3	0	0	0	0	153
Lane Group Flow (vph)	841	0	194	378	106	680
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	52.0		65.0	65.0	47.0	47.0
Effective Green, g (s)	52.0		65.0	65.0	47.0	47.0
Actuated g/C Ratio	0.43		0.54	0.54	0.39	0.39
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	797		195	1009	693	620
v/s Ratio Prot	c0.46		c0.07	0.20	0.06	
v/s Ratio Perm			0.46			c0.43
v/c Ratio	1.06		0.99	0.37	0.15	1.10
Uniform Delay, d1	34.0		57.7	15.8	23.6	36.5
Progression Factor	0.99		1.00	1.00	1.00	1.00
Incremental Delay, d2	47.5		62.6	1.1	0.5	65.6
Delay (s)	81.0		120.3	16.9	24.1	102.1
Level of Service	F		F	B	C	F
Approach Delay (s)	81.0			51.9	93.3	
Approach LOS	F			D	F	

Intersection Summary			
HCM Average Control Delay	78.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	1107	511	498	432	21
Act Effct Green (s)	81.0	81.0	81.0	31.0	31.0
Actuated g/C Ratio	0.68	0.68	0.68	0.26	0.26
v/c Ratio	0.89	0.42	0.82	1.15	0.05
Control Delay	10.5	0.3	21.1	131.4	22.0
Queue Delay	63.0	1.1	0.2	0.0	0.0
Total Delay	73.5	1.5	21.3	131.4	22.0
LOS	E	A	C	F	C
Approach Delay	50.7		21.3	131.4	22.0
Approach LOS	D		C	F	C
Queue Length 50th (ft)	455	8	166	~383	6
Queue Length 95th (ft)	m320	m4	m400	#355	21
Internal Link Dist (ft)	399		3444	602	274
Turn Bay Length (ft)					
Base Capacity (vph)	1246	1221	610	377	427
Starvation Cap Reductn	273	458	0	0	0
Spillback Cap Reductn	0	0	4	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.14	0.67	0.82	1.15	0.05

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 58.4		Intersection LOS: E	
Intersection Capacity Utilization 91.1%		ICU Level of Service F	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.96			0.93	
Flt Protected		1.00	1.00		1.00			0.97			0.99	
Satd. Flow (prot)		1861	1583		1841			1729			1711	
Flt Permitted		0.99	1.00		0.49			0.79			0.94	
Satd. Flow (perm)		1846	1583		900			1409			1624	
Volume (vph)	9	1015	491	34	396	14	261	11	116	4	4	7
Peak-hour factor, PHF	0.58	0.93	0.96	0.72	0.93	0.55	0.92	0.67	0.88	0.75	0.75	0.62
Adj. Flow (vph)	16	1091	511	47	426	25	284	16	132	5	5	11
RTOR Reduction (vph)	0	0	152	0	2	0	0	13	0	0	8	0
Lane Group Flow (vph)	0	1107	359	0	496	0	0	419	0	0	13	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		81.0	81.0		81.0			31.0			31.0	
Effective Green, g (s)		81.0	81.0		81.0			31.0			31.0	
Actuated g/C Ratio		0.68	0.68		0.68			0.26			0.26	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1246	1069		608			364			420	
v/s Ratio Prot												
v/s Ratio Perm		c0.60	0.23		0.55			c0.30			0.01	
v/c Ratio		0.89	0.34		0.82			1.15			0.03	
Uniform Delay, d1		15.8	8.2		14.1			44.5			33.3	
Progression Factor		0.53	0.25		1.06			1.00			1.00	
Incremental Delay, d2		1.0	0.1		4.4			94.6			0.0	
Delay (s)		9.4	2.1		19.4			139.1			33.3	
Level of Service		A	A		B			F			C	
Approach Delay (s)		7.1			19.4			139.1			33.3	
Approach LOS		A			B			F			C	

Intersection Summary					
HCM Average Control Delay	31.9	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.96				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	91.1%	ICU Level of Service	F		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	89	53	52
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	14.5%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	51	21	3	39	37	5
Peak Hour Factor	0.81	0.80	0.50	0.83	0.88	0.50
Hourly flow rate (vph)	63	26	6	47	42	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			89		135	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			89		135	76
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	99
cM capacity (veh/h)			1506		855	985

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	89	53	52
Volume Left	0	6	42
Volume Right	26	0	10
cSH	1700	1506	877
Volume to Capacity	0.05	0.00	0.06
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	0.9	9.4
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	9.4
Approach LOS			A

Intersection Summary				
Average Delay		2.7		
Intersection Capacity Utilization	14.5%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	10	16	103	21	100	2194	654
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	0	9	71	1	12	88	1628	437	26	571	12
Peak Hour Factor	0.50	0.92	0.58	0.72	0.25	0.56	0.88	0.95	0.91	0.71	0.95	0.75
Hourly flow rate (vph)	10	0	16	99	4	21	100	1714	480	37	601	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.67	0.67		0.67	0.67	0.67				0.67		
vC, conflicting volume	1741	3076	309	2528	2844	1097	617			2194		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1612	3615	309	2791	3266	645	617			2291		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	0	0	92	90			75		
cM capacity (veh/h)	0	2	687	4	4	276	959			145		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	10	16	124	100	1142	1051	337	317
Volume Left	10	0	99	100	0	0	37	0
Volume Right	0	16	21	0	0	480	0	16
cSH	0	687	5	959	1700	1700	145	1700
Volume to Capacity	Err	0.02	24.68	0.10	0.67	0.62	0.25	0.19
Queue Length 95th (ft)	Err	2	Err	9	0	0	24	0
Control Delay (s)	Err	10.4	Err	9.2	0.0	0.0	14.6	0.0
Lane LOS	F	B	F	A			B	
Approach Delay (s)	Err		Err	0.4			7.5	
Approach LOS	F		F					

Intersection Summary					
Average Delay	Err				
Intersection Capacity Utilization	90.4%	ICU Level of Service		E	
Analysis Period (min)	15				

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	426	84	13
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	37.5%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	84	308	66	11	5	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	335	72	12	5	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	84				595	78
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	84				595	78
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				99	99
cM capacity (veh/h)	1513				439	983

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	426	84	13
Volume Left	91	0	5
Volume Right	0	12	8
cSH	1513	1700	648
Volume to Capacity	0.06	0.05	0.02
Queue Length 95th (ft)	5	0	2
Control Delay (s)	2.1	0.0	10.7
Lane LOS	A		B
Approach Delay (s)	2.1	0.0	10.7
Approach LOS			B

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	337	78	16
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	33.2%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	99	211	67	5	4	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	229	73	5	4	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	78				520	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	78				520	76
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				99	99
cM capacity (veh/h)	1520				480	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	337	78	16
Volume Left	108	0	4
Volume Right	0	5	12
cSH	1520	1700	769
Volume to Capacity	0.07	0.05	0.02
Queue Length 95th (ft)	6	0	2
Control Delay (s)	2.8	0.0	9.8
Lane LOS	A		A
Approach Delay (s)	2.8	0.0	9.8
Approach LOS			A

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

Base 2014 AM Improved

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	853	1158	577	168	738	927	1248	615	200	274	369
Act Effct Green (s)	23.0	41.0	79.9	8.0	26.0	34.9	42.0	54.0	13.0	20.1	43.1
Actuated g/C Ratio	0.19	0.34	0.67	0.07	0.22	0.29	0.35	0.45	0.11	0.17	0.36
v/c Ratio	0.89	0.96	0.30	0.73	0.66	0.93	1.01	0.84	1.04	0.46	0.36
Control Delay	47.6	43.9	2.3	65.3	34.5	57.2	66.5	40.0	128.3	48.4	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	43.9	2.3	65.3	34.5	57.2	66.5	40.0	128.3	48.4	13.9
LOS	D	D	A	E	C	E	E	D	F	D	B
Approach Delay		35.9			40.2		57.5			52.3	
Approach LOS		D			D		E			D	
Queue Length 50th (ft)	203	349	39	63	187	354	~513	395	~168	103	55
Queue Length 95th (ft)	m#292	m#595	m42	#117	213	#470	#670	#613	#303	148	80
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	956	1209	1932	229	1110	1030	1239	730	192	593	1027
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.96	0.30	0.73	0.66	0.90	1.01	0.84	1.04	0.46	0.36

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 46.8 Intersection LOS: D
Intersection Capacity Utilization 90.8% ICU Level of Service E
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	0.97	0.91		0.97	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	3433	4901		3433	3539	1583	1770	3539	2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	3433	4901		3433	3539	1583	1770	3539	2787
Volume (vph)	819	1112	542	151	532	151	899	1186	603	174	247	336
Peak-hour factor, PHF	0.96	0.96	0.94	0.90	0.95	0.85	0.97	0.95	0.98	0.87	0.90	0.91
Adj. Flow (vph)	853	1158	577	168	560	178	927	1248	615	200	274	369
RTOR Reduction (vph)	0	0	57	0	48	0	0	0	19	0	0	26
Lane Group Flow (vph)	853	1158	520	168	690	0	927	1248	596	200	274	343
Turn Type	Prot		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	23.0	41.0	75.9	8.0	26.0		34.9	42.0	50.0	13.0	20.1	43.1
Effective Green, g (s)	23.0	41.0	75.9	8.0	26.0		34.9	42.0	50.0	13.0	20.1	43.1
Actuated g/C Ratio	0.19	0.34	0.63	0.07	0.22		0.29	0.35	0.42	0.11	0.17	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	956	1209	1856	229	1062		998	1239	712	192	593	1001
v/s Ratio Prot	0.17	c0.33	0.08	0.05	0.14		0.27	c0.35	c0.06	c0.11	0.08	0.07
v/s Ratio Perm			0.11						0.32			0.06
v/c Ratio	0.89	0.96	0.28	0.73	0.65		0.93	1.01	0.84	1.04	0.46	0.34
Uniform Delay, d1	47.3	38.7	9.8	55.0	42.9		41.3	39.0	31.4	53.5	45.1	28.1
Progression Factor	0.78	0.73	0.34	0.84	0.79		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.5	14.8	0.1	11.3	3.0		14.2	27.3	8.5	76.3	0.6	0.2
Delay (s)	45.5	43.0	3.4	57.6	37.1		55.6	66.3	39.9	129.8	45.6	28.3
Level of Service	D	D	A	E	D		E	E	D	F	D	C
Approach Delay (s)		35.0			40.9			56.9			58.0	
Approach LOS		D			D			E			E	

Intersection Summary

HCM Average Control Delay	47.1	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.96				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	90.8%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	305	1483	12	832	63	230	157
Act Effct Green (s)	92.0	92.0	72.0	72.0	20.0	20.0	20.0
Actuated g/C Ratio	0.77	0.77	0.60	0.60	0.17	0.17	0.17
v/c Ratio	0.53	1.04	0.19	0.40	0.21	1.04	0.40
Control Delay	8.8	47.4	15.0	8.1	19.1	120.5	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	47.4	15.0	8.1	19.1	120.5	10.6
LOS	A	D	B	A	B	F	B
Approach Delay		40.8		8.2	19.1		75.9
Approach LOS		D		A	B		E
Queue Length 50th (ft)	33	~1250	3	111	11	~193	3
Queue Length 95th (ft)	45	#1523	3	133	52	#354	0
Internal Link Dist (ft)		679		689	236		625
Turn Bay Length (ft)	150		75				
Base Capacity (vph)	575	1425	62	2068	294	221	393
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	1.04	0.19	0.40	0.21	1.04	0.40

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 21 (18%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 105.6% ICU Level of Service G
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.95			0.90		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1860		1770	3376			1654		1770	1590	
Flt Permitted	0.29	1.00		0.06	1.00			0.91		0.71	1.00	
Satd. Flow (perm)	536	1860		103	3376			1529		1324	1590	
Volume (vph)	250	1394	11	3	536	207	8	0	22	209	1	139
Peak-hour factor, PHF	0.82	0.95	0.67	0.25	0.93	0.81	0.50	0.92	0.47	0.91	0.25	0.91
Adj. Flow (vph)	305	1467	16	12	576	256	16	0	47	230	4	153
RTOR Reduction (vph)	0	0	0	0	42	0	0	39	0	0	128	0
Lane Group Flow (vph)	305	1483	0	12	790	0	0	24	0	230	30	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	92.0	92.0		72.0	72.0			20.0		20.0	20.0	
Effective Green, g (s)	92.0	92.0		72.0	72.0			20.0		20.0	20.0	
Actuated g/C Ratio	0.77	0.77		0.60	0.60			0.17		0.17	0.17	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	575	1426		62	2026			255		221	265	
v/s Ratio Prot	0.07	c0.80			0.23						0.02	
v/s Ratio Perm	0.34			0.12				0.02		c0.17		
v/c Ratio	0.53	1.04		0.19	0.39			0.09		1.04	0.11	
Uniform Delay, d1	12.5	14.0		10.9	12.5			42.3		50.0	42.5	
Progression Factor	0.59	0.80		0.67	0.70			1.00		1.00	1.00	
Incremental Delay, d2	0.8	33.6		6.2	0.5			0.2		71.6	0.2	
Delay (s)	8.3	44.8		13.5	9.2			42.5		121.6	42.6	
Level of Service	A	D		B	A			D		F	D	
Approach Delay (s)		38.6			9.3			42.5			89.6	
Approach LOS		D			A			D			F	

Intersection Summary

HCM Average Control Delay	37.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	250	263	918	126	84	293	744	42	31	1529	259
Act Effct Green (s)	21.0	21.0	120.0	13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Actuated g/C Ratio	0.18	0.18	1.00	0.11	0.11	0.16	0.62	0.62	0.42	0.42	0.42
v/c Ratio	0.85	0.89	0.58	0.65	0.34	1.05	0.34	0.04	0.13	1.02	0.35
Control Delay	60.6	65.5	1.2	66.1	13.8	115.4	11.7	2.8	22.9	62.0	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	65.5	1.2	66.1	13.8	115.4	11.7	2.8	22.9	62.0	14.7
LOS	E	E	A	E	B	F	B	A	C	E	B
Approach Delay		23.4		45.2			39.5			54.6	
Approach LOS		C		D			D			D	
Queue Length 50th (ft)	196	209	0	95	0	~246	137	0	14	~638	74
Queue Length 95th (ft)	m#322	#247	0	107	39	#422	171	5	26	#798	140
Internal Link Dist (ft)		3444		214			173			586	
Turn Bay Length (ft)	310		120			140			135		135
Base Capacity (vph)	295	296	1583	241	284	280	2182	992	242	1504	734
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.89	0.58	0.52	0.30	1.05	0.34	0.04	0.13	1.02	0.35

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 86 (72%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 40.7 Intersection LOS: D
Intersection Capacity Utilization 85.0% ICU Level of Service E
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1690	1583		1806	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)	1681	1690	1583		1806	1583	1770	3539	1583	569	3539	1583
Volume (vph)	472	11	900	55	30	70	267	662	25	21	1453	233
Peak-hour factor, PHF	0.95	0.67	0.98	0.70	0.64	0.83	0.91	0.89	0.59	0.67	0.95	0.90
Adj. Flow (vph)	497	16	918	79	47	84	293	744	42	31	1529	259
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	16	0	0	62
Lane Group Flow (vph)	250	263	918	0	126	9	293	744	26	31	1529	197
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	21.0	21.0	120.0		13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Effective Green, g (s)	21.0	21.0	120.0		13.0	13.0	19.0	74.0	74.0	51.0	51.0	51.0
Actuated g/C Ratio	0.18	0.18	1.00		0.11	0.11	0.16	0.62	0.62	0.42	0.42	0.42
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	294	296	1583		196	171	280	2182	976	242	1504	673
v/s Ratio Prot	0.15	c0.16			0.07		c0.17	0.21			c0.43	
v/s Ratio Perm			c0.58			0.01			0.02	0.05		0.12
v/c Ratio	0.85	0.89	0.58		0.64	0.05	1.05	0.34	0.03	0.13	1.02	0.29
Uniform Delay, d1	48.0	48.4	0.0		51.3	48.0	50.5	11.2	9.0	21.0	34.5	22.7
Progression Factor	0.80	0.80	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.8	20.6	1.2		7.0	0.1	66.4	0.4	0.1	1.1	27.4	1.1
Delay (s)	54.3	59.4	1.2		58.3	48.1	116.9	11.6	9.0	22.1	61.9	23.8
Level of Service	D	E	A		E	D	F	B	A	C	E	C
Approach Delay (s)		21.1			54.2			40.1			55.8	
Approach LOS		C			D			D			E	

Intersection Summary

HCM Average Control Delay	41.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	844	194	378	106	833
Act Effct Green (s)	54.0	96.0	96.0	16.0	58.0
Actuated g/C Ratio	0.45	0.80	0.80	0.13	0.48
v/c Ratio	1.02	0.31	0.25	0.45	1.01
Control Delay	67.8	14.6	3.5	54.7	61.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	14.6	3.5	54.7	61.2
LOS	E	B	A	D	E
Approach Delay	67.8		7.2	60.4	
Approach LOS	E		A	E	
Queue Length 50th (ft)	~666	57	59	77	~595
Queue Length 95th (ft)	m#846	105	82	136	#876
Internal Link Dist (ft)	1884		931	1404	
Turn Bay Length (ft)		150			150
Base Capacity (vph)	831	623	1490	236	825
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.02	0.31	0.25	0.45	1.01

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 54 (45%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 50.1		Intersection LOS: D	
Intersection Capacity Utilization 94.9%		ICU Level of Service F	
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.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1839		1770	1863	1770	1583
Flt Permitted	1.00		0.07	1.00	0.95	1.00
Satd. Flow (perm)	1839		128	1863	1770	1583
Volume (vph)	658	67	163	333	95	800
Peak-hour factor, PHF	0.86	0.85	0.84	0.88	0.90	0.96
Adj. Flow (vph)	765	79	194	378	106	833
RTOR Reduction (vph)	3	0	0	0	0	63
Lane Group Flow (vph)	841	0	194	378	106	770
Turn Type			pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases			2			4
Actuated Green, G (s)	54.0		96.0	96.0	16.0	54.0
Effective Green, g (s)	54.0		96.0	96.0	16.0	54.0
Actuated g/C Ratio	0.45		0.80	0.80	0.13	0.45
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	828		622	1490	236	765
v/s Ratio Prot	c0.46		0.10	0.20	0.06	c0.32
v/s Ratio Perm			0.15			0.17
v/c Ratio	1.02		0.31	0.25	0.45	1.01
Uniform Delay, d1	33.0		31.5	3.0	47.9	33.0
Progression Factor	0.98		1.00	1.00	1.00	1.00
Incremental Delay, d2	35.1		0.3	0.4	6.1	34.1
Delay (s)	67.5		31.8	3.4	54.0	67.1
Level of Service	E		C	A	D	E
Approach Delay (s)	67.5			13.0	65.6	
Approach LOS	E			B	E	

Intersection Summary					
HCM Average Control Delay	53.5	HCM Level of Service	D		
HCM Volume to Capacity ratio	1.01				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	94.9%	ICU Level of Service	F		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1107	511	47	451	284	148	21
Act Effct Green (s)	87.3	113.7	87.3	87.3	20.0	20.0	6.4
Actuated g/C Ratio	0.73	0.95	0.73	0.73	0.17	0.17	0.05
v/c Ratio	0.82	0.33	0.62	0.34	0.96	0.39	0.21
Control Delay	7.0	0.3	41.5	3.8	93.8	13.0	39.1
Queue Delay	37.3	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	0.4	41.5	3.8	93.8	13.0	39.1
LOS	D	A	D	A	F	B	D
Approach Delay	30.4			7.4		66.1	39.1
Approach LOS	C			A		E	D
Queue Length 50th (ft)	110	0	8	63	221	11	8
Queue Length 95th (ft)	m354	m5	m18	m117	#394	28	27
Internal Link Dist (ft)	399			3444		602	274
Turn Bay Length (ft)			150		150		
Base Capacity (vph)	1345	1527	76	1346	295	379	238
Starvation Cap Reductn	313	221	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.39	0.62	0.34	0.96	0.39	0.09

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 62 (52%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 32.0 Intersection LOS: C
Intersection Capacity Utilization 88.4% ICU Level of Service E
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.87			0.93	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1861	1583	1770	1847		1770	1614			1711	
Flt Permitted		0.99	1.00	0.11	1.00		0.95	1.00			0.99	
Satd. Flow (perm)		1847	1583	196	1847		1770	1614			1711	
Volume (vph)	9	1015	491	34	396	14	261	11	116	4	4	7
Peak-hour factor, PHF	0.58	0.93	0.96	0.72	0.93	0.55	0.92	0.67	0.88	0.75	0.75	0.62
Adj. Flow (vph)	16	1091	511	47	426	25	284	16	132	5	5	11
RTOR Reduction (vph)	0	0	64	0	1	0	0	110	0	0	11	0
Lane Group Flow (vph)	0	1107	447	47	450	0	284	38	0	0	10	0
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		6	4		2		4	4		8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)		84.9	104.9	84.9	84.9		20.0	20.0			3.1	
Effective Green, g (s)		84.9	104.9	84.9	84.9		20.0	20.0			3.1	
Actuated g/C Ratio		0.71	0.87	0.71	0.71		0.17	0.17			0.03	
Clearance Time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1307	1437	139	1307		295	269			44	
v/s Ratio Prot			0.05		0.24		c0.16	0.02			c0.01	
v/s Ratio Perm		c0.60	0.23	0.24								
v/c Ratio		0.85	0.31	0.34	0.34		0.96	0.14			0.23	
Uniform Delay, d1		12.8	1.3	6.7	6.8		49.6	42.7			57.3	
Progression Factor		0.42	2.40	0.92	0.50		1.00	1.00			1.00	
Incremental Delay, d2		0.7	0.0	4.5	0.5		42.1	0.2			2.7	
Delay (s)		6.1	3.1	10.7	3.9		91.7	42.9			60.0	
Level of Service		A	A	B	A		F	D			E	
Approach Delay (s)		5.2			4.5			75.0			60.0	
Approach LOS		A			A			E			E	

Intersection Summary

HCM Average Control Delay	17.2	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.85			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	88.4%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	10	16	103	21	100	2194	654
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	0	9	71	1	12	88	1628	437	26	571	12
Peak Hour Factor	0.50	0.92	0.58	0.72	0.25	0.56	0.88	0.95	0.91	0.71	0.95	0.75
Hourly flow rate (vph)	10	0	16	99	4	21	100	1714	480	37	601	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.66	0.66		0.66	0.66	0.66				0.66		
vC, conflicting volume	1741	3076	309	2528	2844	1097	617			2194		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1608	3631	309	2800	3279	631	617			2294		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	0	0	92	90			74		
cM capacity (veh/h)	0	2	687	4	4	279	959			143		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	10	16	124	100	1142	1051	337	317
Volume Left	10	0	99	100	0	0	37	0
Volume Right	0	16	21	0	0	480	0	16
cSH	0	687	5	959	1700	1700	143	1700
Volume to Capacity	Err	0.02	25.38	0.10	0.67	0.62	0.26	0.19
Queue Length 95th (ft)	Err	2	Err	9	0	0	24	0
Control Delay (s)	Err	10.4	Err	9.2	0.0	0.0	14.9	0.0
Lane LOS	F	B	F	A			B	
Approach Delay (s)	Err		Err	0.4			7.7	
Approach LOS	F		F					

Intersection Summary					
Average Delay	Err				
Intersection Capacity Utilization	90.4%	ICU Level of Service		E	
Analysis Period (min)	15				

Base PM Intersection Analysis

Base 2014 PM

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1522	488	892	1132	723	1154
Act Effct Green (s)	28.1	28.1	32.9	65.0	47.0	47.0
Actuated g/C Ratio	0.23	0.23	0.27	0.54	0.39	0.39
v/c Ratio	0.86	0.66	0.95	0.41	0.37	0.99
Control Delay	50.3	8.1	48.1	4.9	26.7	57.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	8.1	48.1	4.9	26.7	57.6
LOS	D	A	D	A	C	E
Approach Delay	40.1			24.0		
Approach LOS	D			C		
Queue Length 50th (ft)	284	0	327	13	139	463
Queue Length 95th (ft)	324	96	#458	31	173	#639
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	1767	744	973	2754	1954	1163
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.66	0.92	0.41	0.37	0.99

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 67 (56%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.99		
Intersection Signal Delay: 36.3	Intersection LOS: D	
Intersection Capacity Utilization 83.4%	ICU Level of Service E	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1461	449	847	1087	0	0	0	0	701	0	1062
Peak-hour factor, PHF	0.92	0.96	0.92	0.95	0.96	0.92	0.92	0.92	0.92	0.97	0.93	0.92
Adj. Flow (vph)	0	1522	488	892	1132	0	0	0	0	723	0	1154
RTOR Reduction (vph)	0	0	374	0	0	0	0	0	0	0	0	72
Lane Group Flow (vph)	0	1522	114	892	1132	0	0	0	0	723	0	1082
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		28.1	28.1	32.9	65.0					47.0		47.0
Effective Green, g (s)		28.1	28.1	32.9	65.0					47.0		47.0
Actuated g/C Ratio		0.23	0.23	0.27	0.54					0.39		0.39
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1767	371	941	2754					1954		1092
v/s Ratio Prot		c0.20		c0.26	0.22					0.14		
v/s Ratio Perm			0.07									c0.39
v/c Ratio		0.86	0.31	0.95	0.41					0.37		0.99
Uniform Delay, d1		44.1	37.9	42.7	16.2					26.0		36.3
Progression Factor		1.00	1.00	0.74	0.28					1.00		1.00
Incremental Delay, d2		5.8	2.1	14.8	0.4					0.1		25.0
Delay (s)		49.9	40.1	46.4	4.9					26.1		61.2
Level of Service		D	D	D	A					C		E
Approach Delay (s)		47.5			23.2			0.0			47.7	
Approach LOS		D			C			A			D	

Intersection Summary				
HCM Average Control Delay	39.2	HCM Level of Service	D	
HCM Volume to Capacity ratio	0.94			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	83.4%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	882	1363	2096	521	169	163	561
Act Effct Green (s)	35.1	94.2	55.1	55.1	17.8	17.8	17.8
Actuated g/C Ratio	0.29	0.78	0.46	0.46	0.15	0.15	0.15
v/c Ratio	0.88	0.34	0.66	0.68	0.68	0.76	0.68
Control Delay	25.6	3.0	20.3	5.8	61.8	68.2	29.4
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	25.6	3.0	20.3	5.9	61.8	68.2	29.4
LOS	C	A	C	A	E	E	C
Approach Delay		11.9	17.5			42.6	
Approach LOS		B	B			D	
Queue Length 50th (ft)	257	21	278	73	128	141	83
Queue Length 95th (ft)	m350	132	m279	m81	206	234	126
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1092	3993	3183	771	294	253	929
Starvation Cap Reductn	0	0	0	17	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	0.81	0.34	0.66	0.69	0.57	0.64	0.60

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 10 (8%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 19.2		Intersection LOS: B	
Intersection Capacity Utilization 83.4%		ICU Level of Service E	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.97	0.85	1.00	0.98	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.96	1.00			
Satd. Flow (prot)	3433	5085			6836	1203	1681	1414	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.96	1.00			
Satd. Flow (perm)	3433	5085			6836	1203	1681	1414	4085			
Volume (vph)	829	1295	0	0	1553	959	279	0	551	0	0	0
Peak-hour factor, PHF	0.94	0.95	0.92	0.92	0.96	0.96	0.91	0.92	0.94	0.92	0.92	0.92
Adj. Flow (vph)	882	1363	0	0	1618	999	307	0	586	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	218	0	6	221	0	0	0
Lane Group Flow (vph)	882	1363	0	0	2055	303	169	157	340	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	35.1	94.2			55.1	55.1	17.8	17.8	17.8			
Effective Green, g (s)	35.1	94.2			55.1	55.1	17.8	17.8	17.8			
Actuated g/C Ratio	0.29	0.78			0.46	0.46	0.15	0.15	0.15			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1004	3992			3139	552	249	210	606			
v/s Ratio Prot	c0.26	0.27			c0.30		0.10	c0.11				
v/s Ratio Perm						0.25			0.08			
v/c Ratio	0.88	0.34			0.65	0.55	0.68	0.75	0.56			
Uniform Delay, d1	40.4	3.8			25.1	23.5	48.4	48.9	47.5			
Progression Factor	0.44	0.69			0.79	0.68	1.00	1.00	1.00			
Incremental Delay, d2	6.4	0.2			0.3	1.0	7.2	13.5	1.2			
Delay (s)	24.2	2.8			20.0	16.9	55.6	62.5	48.7			
Level of Service	C	A			C	B	E	E	D			
Approach Delay (s)		11.2			19.4			52.5			0.0	
Approach LOS		B			B			D			A	

Intersection Summary			
HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	488	652	793	589	1089	806	544	349	233	1084	1027
Act Effct Green (s)	20.0	20.0	20.0	30.0	30.0	22.0	34.0	68.0	20.0	32.0	52.0
Actuated g/C Ratio	0.17	0.17	0.17	0.25	0.25	0.18	0.28	0.57	0.17	0.27	0.43
v/c Ratio	0.59	1.11	0.86	1.33	0.86	1.28	0.54	0.37	0.79	1.27	0.87
Control Delay	29.3	98.6	23.2	193.2	38.0	178.6	39.8	10.2	66.3	167.7	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	98.6	23.2	193.2	38.0	178.6	39.8	10.2	66.3	167.7	27.0
LOS	C	F	C	F	D	F	D	B	E	F	C
Approach Delay		50.2			92.5		99.6			96.0	
Approach LOS		D			F		F			F	
Queue Length 50th (ft)	117	~307	209	~592	266	~408	189	82	174	~615	209
Queue Length 95th (ft)	150	#422	#310	#818	327	#532	254	158	251	#764	298
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	832	590	926	443	1273	629	1002	955	369	854	1187
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.11	0.86	1.33	0.86	1.28	0.54	0.37	0.63	1.27	0.87

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.33		
Intersection Signal Delay: 84.4	Intersection LOS: F	
Intersection Capacity Utilization 115.7%	ICU Level of Service H	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4908		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4908		3433	3539	1583	1770	3204	2723
Volume (vph)	454	613	753	536	794	238	725	479	321	207	1051	945
Peak-hour factor, PHF	0.93	0.94	0.95	0.91	0.95	0.94	0.90	0.88	0.92	0.89	0.97	0.92
Adj. Flow (vph)	488	652	793	589	836	253	806	544	349	233	1084	1027
RTOR Reduction (vph)	0	0	462	0	46	0	0	0	63	0	0	7
Lane Group Flow (vph)	488	652	331	589	1043	0	806	544	286	233	1084	1020
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	20.0	20.0	20.0	30.0	30.0		22.0	34.0	64.0	20.0	32.0	52.0
Effective Green, g (s)	20.0	20.0	20.0	30.0	30.0		22.0	34.0	64.0	20.0	32.0	52.0
Actuated g/C Ratio	0.17	0.17	0.17	0.25	0.25		0.18	0.28	0.53	0.17	0.27	0.43
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	832	590	465	443	1227		629	1003	897	295	854	1180
v/s Ratio Prot	0.10	c0.18		c0.33	0.21		c0.23	0.15	0.08	0.13	c0.34	0.14
v/s Ratio Perm			0.12						0.10			0.23
v/c Ratio	0.59	1.11	0.71	1.33	0.85		1.28	0.54	0.32	0.79	1.27	0.86
Uniform Delay, d1	46.2	50.0	47.3	45.0	42.9		49.0	36.4	15.7	48.0	44.0	30.8
Progression Factor	0.57	0.61	0.95	0.78	0.76		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	67.7	8.2	162.0	6.9		138.5	0.6	0.2	13.1	130.4	6.8
Delay (s)	27.4	98.1	53.1	197.2	39.5		187.5	37.0	16.0	61.1	174.4	37.6
Level of Service	C	F	D	F	D		F	D	B	E	F	D
Approach Delay (s)		61.8			94.8			104.1			103.2	
Approach LOS		E			F			F			F	

Intersection Summary				
HCM Average Control Delay	91.1	HCM Level of Service	F	
HCM Volume to Capacity ratio	1.25			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	115.7%	ICU Level of Service	H	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBT
Lane Group Flow (vph)	1017	10	1542	16	11
Act Effct Green (s)	108.6	109.0	110.6	6.9	6.9
Actuated g/C Ratio	0.90	0.91	0.92	0.06	0.06
v/c Ratio	0.32	0.02	0.47	0.20	0.03
Control Delay	0.7	0.4	0.5	58.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.4	0.5	58.9	0.1
LOS	A	A	A	E	A
Approach Delay	0.7		0.5		35.0
Approach LOS	A		A		C
Queue Length 50th (ft)	10	1	30	12	0
Queue Length 95th (ft)	m24	m1	m34	29	0
Internal Link Dist (ft)	1091		72		476
Turn Bay Length (ft)		65		50	
Base Capacity (vph)	3204	532	3261	270	531
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.02	0.47	0.06	0.02

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 0.9		Intersection LOS: A	
Intersection Capacity Utilization 50.9%		ICU Level of Service A	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0		4.0	4.0				
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00				
Frt		1.00		1.00	1.00		1.00	0.85				
Flt Protected		1.00		0.95	1.00		0.95	1.00				
Satd. Flow (prot)		3539		1770	3539		1770	1583				
Flt Permitted		1.00		0.26	1.00		0.87	1.00				
Satd. Flow (perm)		3539		488	3539		1620	1583				
Volume (vph)	0	976	0	5	1480	0	12	0	8	0	0	0
Peak-hour factor, PHF	0.81	0.96	0.92	0.50	0.96	0.69	0.75	0.92	0.75	0.89	0.92	0.92
Adj. Flow (vph)	0	1017	0	10	1542	0	16	0	11	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	11	0	0	0	0
Lane Group Flow (vph)	0	1017	0	10	1542	0	16	0	0	0	0	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		102.3		107.4	107.4		4.6	4.6				
Effective Green, g (s)		102.3		107.4	107.4		4.6	4.6				
Actuated g/C Ratio		0.85		0.90	0.90		0.04	0.04				
Clearance Time (s)		4.0		4.0	4.0		4.0	4.0				
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0				
Lane Grp Cap (vph)		3017		449	3167		62	61				
v/s Ratio Prot		0.29		0.00	c0.44			0.00				
v/s Ratio Perm				0.02			c0.01					
v/c Ratio		0.34		0.02	0.49		0.26	0.01				
Uniform Delay, d1		1.8		0.9	1.2		56.0	55.5				
Progression Factor		0.34		0.37	0.36		1.00	1.00				
Incremental Delay, d2		0.2		0.0	0.0		2.2	0.0				
Delay (s)		0.8		0.3	0.5		58.2	55.5				
Level of Service		A		A	A		E	E				
Approach Delay (s)		0.8			0.5			57.1			0.0	
Approach LOS		A			A			E			A	

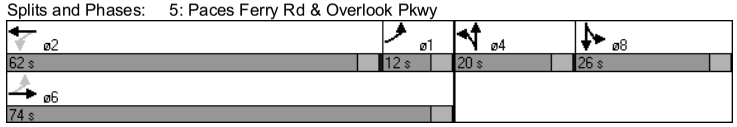
Intersection Summary					
HCM Average Control Delay	1.2	HCM Level of Service		A	
HCM Volume to Capacity ratio	0.48				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	50.9%	ICU Level of Service		A	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1848	0	1770	1829	0	0	1713	0	1770	1587	0
Flt Permitted	0.065			0.069				0.970		0.950		
Satd. Flow (perm)	121	1848	0	129	1829	0	0	1713	0	1770	1587	0
Satd. Flow (RTOR)		4			8			22			247	
Volume (vph)	121	858	33	24	1134	139	50	0	32	365	3	383
Lane Group Flow (vph)	132	951	0	38	1333	0	0	111	0	420	473	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	12.0	74.0	0.0	62.0	62.0	0.0	20.0	20.0	0.0	26.0	26.0	0.0
Act Effct Green (s)	70.0	70.0		58.0	58.0			11.4		26.6	26.6	
Actuated g/C Ratio	0.58	0.58		0.48	0.48			0.10		0.22	0.22	
v/c Ratio	0.73	0.88		0.61	1.50			0.61		1.07	0.87	
Control Delay	46.5	27.1		48.2	255.0			55.3		109.9	39.3	
Queue Delay	0.0	8.6		0.0	6.9			0.0		0.0	0.0	
Total Delay	46.5	35.7		48.2	261.9			55.3		109.9	39.3	
LOS	D	D		D	F			E		F	D	
Approach Delay		37.0			256.0			55.3			72.5	
Approach LOS		D			F			E			E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 11 (9%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay: 133.6		Intersection LOS: F	
Intersection Capacity Utilization 116.7%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98			0.95		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1770	1849		1770	1828			1713		1770	1587	
Flt Permitted	0.06	1.00		0.07	1.00			0.97		0.95	1.00	
Satd. Flow (perm)	120	1849		128	1828			1713		1770	1587	
Volume (vph)	121	858	33	24	1134	139	50	0	32	365	3	383
Peak-hour factor, PHF	0.92	0.95	0.69	0.64	0.97	0.85	0.73	0.92	0.75	0.87	0.50	0.82
Adj. Flow (vph)	132	903	48	38	1169	164	68	0	43	420	6	467
RTOR Reduction (vph)	0	2	0	0	4	0	0	20	0	0	192	0
Lane Group Flow (vph)	132	949	0	38	1329	0	0	91	0	420	281	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	70.0	70.0		58.0	58.0			11.4		26.6	26.6	
Effective Green, g (s)	70.0	70.0		58.0	58.0			11.4		26.6	26.6	
Actuated g/C Ratio	0.58	0.58		0.48	0.48			0.10		0.22	0.22	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	180	1079		62	884			163		392	352	
v/s Ratio Prot	0.05	c0.51			c0.73			c0.05		c0.24	0.18	
v/s Ratio Perm	0.38			0.30								
v/c Ratio	0.73	0.88		0.61	1.50			0.56		1.07	0.80	
Uniform Delay, d1	51.5	21.4		22.8	31.0			51.9		46.7	44.2	
Progression Factor	0.59	0.75		1.09	1.02			1.00		1.00	1.00	
Incremental Delay, d2	13.9	10.0		16.1	228.8			4.1		65.8	11.9	
Delay (s)	44.1	26.1		40.8	260.2			56.0		112.5	56.0	
Level of Service	D	C		D	F			E		F	E	
Approach Delay (s)		28.3			254.2			56.0			82.6	
Approach LOS		C			F			E			F	

Intersection Summary					
HCM Average Control Delay	132.7	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.22				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	116.7%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1256	1232	237	28
Act Effct Green (s)	91.0	91.0	21.0	21.0
Actuated g/C Ratio	0.76	0.76	0.18	0.18
v/c Ratio	0.97	0.92	0.98	0.09
Control Delay	23.5	14.3	98.2	20.2
Queue Delay	22.3	177.1	21.6	0.0
Total Delay	45.8	191.4	119.8	20.2
LOS	D	F	F	C
Approach Delay	45.8	191.4	119.8	20.2
Approach LOS	D	F	F	C
Queue Length 50th (ft)	422	569	180	4
Queue Length 95th (ft)	m640	m252	57	31
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1301	1334	243	297
Starvation Cap Reductn	106	453	0	0
Spillback Cap Reductn	8	0	18	21
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.05	1.40	1.05	0.10

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 27 (23%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay: 117.1		Intersection LOS: F	
Intersection Capacity Utilization 97.9%		ICU Level of Service F	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			1.00			0.98			0.89	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1825			1857			1751			1648	
Flt Permitted		0.94			0.95			0.74			0.96	
Satd. Flow (perm)		1709			1759			1356			1592	
Volume (vph)	20	1003	157	22	1090	9	186	1	26	3	0	11
Peak-hour factor, PHF	0.54	0.96	0.90	0.71	0.92	0.58	0.95	0.25	0.71	0.50	0.92	0.50
Adj. Flow (vph)	37	1045	174	31	1185	16	196	4	37	6	0	22
RTOR Reduction (vph)	0	5	0	0	0	0	0	6	0	0	18	0
Lane Group Flow (vph)	0	1251	0	0	1232	0	0	231	0	0	10	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		91.0			91.0			21.0			21.0	
Effective Green, g (s)		91.0			91.0			21.0			21.0	
Actuated g/C Ratio		0.76			0.76			0.18			0.18	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1296			1334			237			279	
v/s Ratio Prot												
v/s Ratio Perm		c0.73			0.70			c0.17			0.01	
v/c Ratio		0.97			0.92			0.98			0.04	
Uniform Delay, d1		13.1			11.7			49.2			41.1	
Progression Factor		1.01			0.99			0.96			1.00	
Incremental Delay, d2		9.1			1.4			50.9			0.1	
Delay (s)		22.4			13.0			98.1			41.1	
Level of Service		C			B			F			D	
Approach Delay (s)		22.4			13.0			98.1			41.1	
Approach LOS		C			B			F			D	

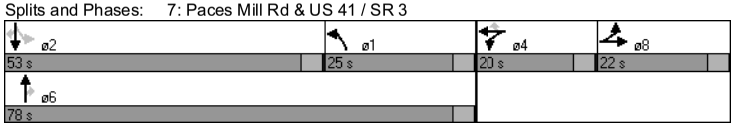
Intersection Summary					
HCM Average Control Delay	24.9	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.97				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	97.9%	ICU Level of Service	F		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1695	1583	0	1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.958			0.979		0.950			0.082		
Satd. Flow (perm)	1681	1695	1583	0	1824	1583	1770	3539	1583	153	3539	1583
Satd. Flow (RTOR)			206			22			70			250
Volume (vph)	488	29	324	24	30	26	347	1613	58	55	958	376
Lane Group Flow (vph)	282	297	352	0	64	37	373	1698	73	73	1008	409
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	22.0	22.0	0.0	20.0	20.0	20.0	25.0	78.0	78.0	53.0	53.0	53.0
Act Effct Green (s)	26.5	26.5	120.0		9.4	9.4	21.0	74.0	74.0	49.0	49.0	49.0
Actuated g/C Ratio	0.22	0.22	1.00		0.08	0.08	0.18	0.62	0.62	0.41	0.41	0.41
v/c Ratio	0.76	0.79	0.22		0.45	0.26	1.20	0.78	0.07	1.18	0.70	0.52
Control Delay	52.1	54.5	0.3		61.8	31.8	160.8	20.2	2.5	206.1	32.5	12.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	54.5	0.3		61.8	31.8	160.8	20.2	2.5	206.1	32.5	12.2
LOS	D	D	A		E	C	F	C	A	F	C	B
Approach Delay		33.3			50.8			44.0			35.5	
Approach LOS		C			D			D			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 119 (99%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 39.3		Intersection LOS: D	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3



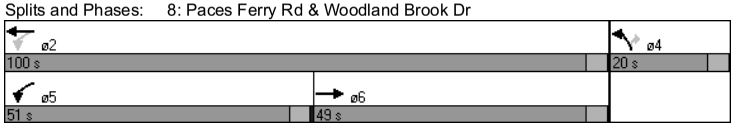
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1695	1583		1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	1681	1695	1583		1824	1583	1770	3539	1583	155	3539	1583
Volume (vph)	488	29	324	24	30	26	347	1613	58	55	958	376
Peak-hour factor, PHF	0.90	0.79	0.92	0.90	0.82	0.71	0.93	0.95	0.79	0.75	0.95	0.92
Adj. Flow (vph)	542	37	352	27	37	37	373	1698	73	73	1008	409
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	27	0	0	150
Lane Group Flow (vph)	282	297	352	0	64	17	373	1698	46	73	1008	259
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	26.5	26.5	120.0		8.3	8.3	21.0	73.2	73.2	48.2	48.2	48.2
Effective Green, g (s)	26.5	26.5	120.0		8.3	8.3	21.0	73.2	73.2	48.2	48.2	48.2
Actuated g/C Ratio	0.22	0.22	1.00		0.07	0.07	0.18	0.61	0.61	0.40	0.40	0.40
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	371	374	1583		126	109	310	2159	966	62	1421	636
v/s Ratio Prot	0.17	c0.18			c0.04		c0.21	0.48			0.28	
v/s Ratio Perm			0.22			0.01			0.03	c0.47		0.16
v/c Ratio	0.76	0.79	0.22		0.51	0.15	1.20	0.79	0.05	1.18	0.71	0.41
Uniform Delay, d1	43.8	44.2	0.0		53.9	52.5	49.5	17.5	9.4	35.9	30.0	25.7
Progression Factor	0.87	0.87	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.5	9.3	0.3		3.2	0.6	118.1	3.0	0.1	170.2	3.0	1.9
Delay (s)	45.6	47.9	0.3		57.1	53.2	167.6	20.5	9.5	206.1	33.1	27.6
Level of Service	D	D	A		E	D	F	C	A	F	C	C
Approach Delay (s)		29.2			55.7			45.7			40.0	
Approach LOS		C			E			D			D	

Intersection Summary					
HCM Average Control Delay	40.8	HCM Level of Service		D	
HCM Volume to Capacity ratio	1.03				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	78.9%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1812	0	1770	1863	1770	1583
Flt Permitted			0.202		0.950	
Satd. Flow (perm)	1812	0	376	1863	1770	1583
Satd. Flow (RTOR)	12					169
Volume (vph)	380	89	579	608	54	150
Lane Group Flow (vph)	495	0	623	676	58	169
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	49.0	0.0	51.0	100.0	20.0	20.0
Act Effct Green (s)	59.9		96.0	96.0	16.0	16.0
Actuated g/C Ratio	0.50		0.80	0.80	0.13	0.13
v/c Ratio	0.54		0.92	0.45	0.25	0.47
Control Delay	23.7		39.1	4.9	49.7	11.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	23.7		39.1	4.9	49.7	11.6
LOS	C		D	A	D	B
Approach Delay	23.7			21.3	21.4	
Approach LOS	C			C	C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 56 (47%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1812		1770	1863	1770	1583
Flt Permitted	1.00		0.31	1.00	0.95	1.00
Satd. Flow (perm)	1812		578	1863	1770	1583
Volume (vph)	380	89	579	608	54	150
Peak-hour factor, PHF	0.96	0.90	0.93	0.90	0.93	0.89
Adj. Flow (vph)	396	99	623	676	58	169
RTOR Reduction (vph)	6	0	0	0	0	146
Lane Group Flow (vph)	489	0	623	676	58	23
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	59.9		96.0	96.0	16.0	16.0
Effective Green, g (s)	59.9		96.0	96.0	16.0	16.0
Actuated g/C Ratio	0.50		0.80	0.80	0.13	0.13
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	904		781	1490	236	211
v/s Ratio Prot	0.27		c0.21	0.36	c0.03	
v/s Ratio Perm			c0.42			0.01
v/c Ratio	0.54		0.80	0.45	0.25	0.11
Uniform Delay, d1	20.6		12.0	3.8	46.6	45.7
Progression Factor	0.92		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3		5.7	1.0	2.5	1.0
Delay (s)	21.3		17.7	4.8	49.1	46.7
Level of Service	C		B	A	D	D
Approach Delay (s)	21.3			11.0	47.3	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	664	359	797	697	41
Act Effct Green (s)	69.0	69.0	69.0	43.0	43.0
Actuated g/C Ratio	0.58	0.58	0.58	0.36	0.36
v/c Ratio	0.64	0.34	1.50	1.45	0.07
Control Delay	20.6	3.9	250.4	245.7	23.3
Queue Delay	4.7	0.4	117.3	23.9	0.0
Total Delay	25.3	4.3	367.7	269.6	23.3
LOS	C	A	F	F	C
Approach Delay	17.9		367.7	269.6	23.3
Approach LOS	B		F	F	C
Queue Length 50th (ft)	290	27	~877	~740	18
Queue Length 95th (ft)	m311	m36	m#911	352	19
Internal Link Dist (ft)	399		3444	602	274
Turn Bay Length (ft)					
Base Capacity (vph)	1045	1063	532	480	625
Starvation Cap Reductn	304	325	0	0	0
Spillback Cap Reductn	0	0	79	17	22
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.49	1.76	1.51	0.07

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.50
Intersection Signal Delay: 195.6 Intersection LOS: F
Intersection Capacity Utilization 123.5% ICU Level of Service H
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		1.00			0.98			0.98	
Flt Protected		1.00	1.00		0.99			0.96			0.99	
Satd. Flow (prot)		1861	1583		1843			1758			1821	
Flt Permitted		0.98	1.00		0.50			0.72			0.95	
Satd. Flow (perm)		1819	1583		925			1328			1733	
Volume (vph)	9	603	341	142	596	4	554	5	68	4	13	4
Peak-hour factor, PHF	0.58	0.93	0.95	0.90	0.94	0.75	0.91	0.50	0.87	0.75	0.42	0.75
Adj. Flow (vph)	16	648	359	158	634	5	609	10	78	5	31	5
RTOR Reduction (vph)	0	0	153	0	0	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	664	206	0	797	0	0	693	0	0	38	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		69.0	69.0		69.0			43.0			43.0	
Effective Green, g (s)		69.0	69.0		69.0			43.0			43.0	
Actuated g/C Ratio		0.57	0.57		0.57			0.36			0.36	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1046	910		532			476			621	
v/s Ratio Prot												
v/s Ratio Perm		0.37	0.13		c0.86			c0.52			0.02	
v/c Ratio		0.63	0.23		1.50			1.46			0.06	
Uniform Delay, d1		17.1	12.5		25.5			38.5			25.3	
Progression Factor		1.12	2.94		0.67			1.00			1.00	
Incremental Delay, d2		0.9	0.2		229.5			216.7			0.0	
Delay (s)		20.0	36.8		246.6			255.2			25.3	
Level of Service		B	D		F			F			C	
Approach Delay (s)		25.9			246.6			255.2			25.3	
Approach LOS		C			F			F			C	

Intersection Summary

HCM Average Control Delay	157.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.48		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	123.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	131	106	54
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	16.8%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	51	41	3	83	36	3
Peak Hour Factor	0.65	0.78	0.25	0.88	0.75	0.50
Hourly flow rate (vph)	78	53	12	94	48	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			131		223	105
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			131		223	105
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	99
cM capacity (veh/h)			1454		759	950

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	131	106	54
Volume Left	0	12	48
Volume Right	53	0	6
cSH	1700	1454	776
Volume to Capacity	0.08	0.01	0.07
Queue Length 95th (ft)	0	1	6
Control Delay (s)	0.0	0.9	10.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	10.0
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	37	89	437	137	58	1217	1785
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	0	67	358	0	103	45	1038	76	3	1734	5
Peak Hour Factor	0.46	0.92	0.75	0.82	0.92	0.75	0.77	0.93	0.75	0.50	0.98	0.50
Hourly flow rate (vph)	37	0	89	437	0	137	58	1116	101	6	1769	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.88	0.88		0.88	0.88	0.88				0.88		
vC, conflicting volume	2461	3121	890	2180	3075	609	1779			1217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2526	3277	890	2206	3225	415	1779			1108		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	69	0	100	73	83			99		
cM capacity (veh/h)	8	6	286	13	7	515	345			549		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	37	89	574	58	744	473	891	895
Volume Left	37	0	437	58	0	0	6	0
Volume Right	0	89	137	0	0	101	0	10
cSH	8	286	17	345	1700	1700	549	1700
Volume to Capacity	4.78	0.31	34.37	0.17	0.44	0.28	0.01	0.53
Queue Length 95th (ft)	Err	32	Err	15	0	0	1	0
Control Delay (s)	Err	23.2	Err	17.5	0.0	0.0	0.3	0.0
Lane LOS	F	C	F	C			A	
Approach Delay (s)	2942.4		Err	0.8			0.2	
Approach LOS	F		F					

Intersection Summary					
Average Delay	1624.8				
Intersection Capacity Utilization	83.3%	ICU Level of Service		E	
Analysis Period (min)	15				

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	90	109	86
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	19.7%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	78	97	4	9	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	85	105	4	10	76
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	110				203	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	110				203	108
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	92
cM capacity (veh/h)	1480				782	946

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	90	110	86
Volume Left	5	0	10
Volume Right	0	4	76
cSH	1480	1700	924
Volume to Capacity	0.00	0.06	0.09
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.5	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	0.5	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization		19.7%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBT	WBT	SBL
Lane Group Flow (vph)	104	78	67
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	22.2%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	16	80	67	5	5	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	87	73	5	5	62
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	78				197	76
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	78				197	76
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	94
cM capacity (veh/h)	1520				782	986

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	104	78	67
Volume Left	17	0	5
Volume Right	0	5	62
cSH	1520	1700	966
Volume to Capacity	0.01	0.05	0.07
Queue Length 95th (ft)	1	0	6
Control Delay (s)	1.3	0.0	9.0
Lane LOS	A		A
Approach Delay (s)	1.3	0.0	9.0
Approach LOS			A

Intersection Summary				
Average Delay		3.0		
Intersection Capacity Utilization		22.2%	ICU Level of Service	A
Analysis Period (min)		15		

Base 2014 PM Improved

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	488	652	793	589	1089	806	544	349	233	1084	1027
Act Effct Green (s)	13.0	22.0	53.0	20.0	29.0	27.0	42.0	66.0	20.0	35.0	48.0
Actuated g/C Ratio	0.11	0.18	0.44	0.17	0.24	0.22	0.35	0.55	0.17	0.29	0.40
v/c Ratio	0.90	1.00	0.64	1.03	0.88	1.04	0.44	0.37	0.79	1.05	0.91
Control Delay	52.9	65.2	24.2	81.1	38.2	89.7	32.2	10.1	66.3	83.6	36.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	65.2	24.2	81.1	38.2	89.7	32.2	10.1	66.3	83.6	36.6
LOS	D	E	C	F	D	F	C	B	E	F	D
Approach Delay		45.3			53.3		54.9			61.3	
Approach LOS		D			D		D			E	
Queue Length 50th (ft)	126	~253	340	~252	287	~348	170	78	174	~481	273
Queue Length 95th (ft)	#197	#396	417	#363	#331	#473	230	155	251	#616	#423
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	541	649	1238	572	1231	772	1238	938	369	1032	1124
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	1.00	0.64	1.03	0.88	1.04	0.44	0.37	0.63	1.05	0.91

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.05		
Intersection Signal Delay: 54.1	Intersection LOS: D	
Intersection Capacity Utilization 95.3%	ICU Level of Service F	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	0.97	0.91		0.97	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	3433	4908		3433	3539	1583	1770	3539	2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	3433	4908		3433	3539	1583	1770	3539	2787
Volume (vph)	454	613	753	536	794	238	725	479	321	207	1051	945
Peak-hour factor, PHF	0.93	0.94	0.95	0.91	0.95	0.94	0.90	0.88	0.92	0.89	0.97	0.92
Adj. Flow (vph)	488	652	793	589	836	253	806	544	349	233	1084	1027
RTOR Reduction (vph)	0	0	7	0	46	0	0	0	73	0	0	9
Lane Group Flow (vph)	488	652	786	589	1044	0	806	544	276	233	1084	1018
Turn Type	Prot		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	13.0	22.0	49.0	20.0	29.0		27.0	42.0	62.0	20.0	35.0	48.0
Effective Green, g (s)	13.0	22.0	49.0	20.0	29.0		27.0	42.0	62.0	20.0	35.0	48.0
Actuated g/C Ratio	0.11	0.18	0.41	0.17	0.24		0.22	0.35	0.52	0.17	0.29	0.40
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	541	649	1231	572	1186		772	1239	871	295	1032	1115
v/s Ratio Prot	0.10	c0.18	0.14	c0.17	c0.21		c0.23	0.15	0.05	0.13	c0.31	0.10
v/s Ratio Perm			0.14						0.12			0.27
v/c Ratio	0.90	1.00	0.64	1.03	0.88		1.04	0.44	0.32	0.79	1.05	0.91
Uniform Delay, d1	52.9	49.0	28.4	50.0	43.8		46.5	30.0	16.8	48.0	42.5	34.0
Progression Factor	0.61	0.58	0.84	0.73	0.70		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.0	34.9	1.0	43.8	8.8		44.5	0.2	0.2	13.1	42.2	11.3
Delay (s)	49.3	63.1	24.9	80.3	39.4		91.0	30.2	17.0	61.1	84.7	45.3
Level of Service	D	E	C	F	D		F	C	B	E	F	D
Approach Delay (s)		43.9			53.7			56.3			65.1	
Approach LOS		D			D			E			E	

Intersection Summary				
HCM Average Control Delay	55.3	HCM Level of Service	E	
HCM Volume to Capacity ratio	1.00			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	95.3%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	132	951	38	1333	111	420	473
Act Effct Green (s)	70.3	70.3	58.3	58.3	41.7	41.7	41.7
Actuated g/C Ratio	0.59	0.59	0.49	0.49	0.35	0.35	0.35
v/c Ratio	0.68	0.88	0.59	0.79	0.40	0.94	0.71
Control Delay	42.7	21.8	43.1	25.3	25.5	68.8	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	21.8	43.1	25.3	25.5	68.8	27.6
LOS	D	C	D	C	C	E	C
Approach Delay		24.4		25.8	25.5		47.0
Approach LOS		C		C	C		D
Queue Length 50th (ft)	39	639	18	398	45	304	201
Queue Length 95th (ft)	#130	#942	m22	m397	99	#469	93
Internal Link Dist (ft)		679		689	236		625
Turn Bay Length (ft)	150		75				
Base Capacity (vph)	195	1085	64	1698	289	470	689
Starvation Cap Reductn	0	0	0	2	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	0.68	0.88	0.59	0.79	0.38	0.89	0.69

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 31 (26%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.94		
Intersection Signal Delay: 30.8	Intersection LOS: C	
Intersection Capacity Utilization 92.4%	ICU Level of Service F	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98			0.95		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1770	1849		1770	3474			1713		1770	1587	
Flt Permitted	0.09	1.00		0.07	1.00			0.38		0.69	1.00	
Satd. Flow (perm)	165	1849		128	3474			678		1279	1587	
Volume (vph)	121	858	33	24	1134	139	50	0	32	365	3	383
Peak-hour factor, PHF	0.92	0.95	0.69	0.64	0.97	0.85	0.73	0.92	0.75	0.87	0.50	0.82
Adj. Flow (vph)	132	903	48	38	1169	164	68	0	43	420	6	467
RTOR Reduction (vph)	0	2	0	0	9	0	0	20	0	0	110	0
Lane Group Flow (vph)	132	949	0	38	1324	0	0	91	0	420	363	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	70.3	70.3		58.3	58.3			41.7		41.7	41.7	
Effective Green, g (s)	70.3	70.3		58.3	58.3			41.7		41.7	41.7	
Actuated g/C Ratio	0.59	0.59		0.49	0.49			0.35		0.35	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	204	1083		62	1688			236		444	551	
v/s Ratio Prot	0.04	c0.51			0.38						0.23	
v/s Ratio Perm	0.34			0.30				0.13		c0.33		
v/c Ratio	0.65	0.88		0.61	0.78			0.39		0.95	0.66	
Uniform Delay, d1	40.2	21.2		22.6	25.6			29.5		38.1	33.1	
Progression Factor	0.68	0.50		0.91	0.91			1.00		1.00	1.00	
Incremental Delay, d2	6.7	9.7		16.1	1.5			1.1		29.2	2.8	
Delay (s)	34.1	20.2		36.7	24.7			30.6		67.2	36.0	
Level of Service	C	C		D	C			C		E	D	
Approach Delay (s)		21.9			25.0			30.6			50.7	
Approach LOS		C			C			C			D	

Intersection Summary				
HCM Average Control Delay	30.8	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.90			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	92.4%	ICU Level of Service	F	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	282	297	352	64	37	373	1698	73	73	1008	409
Act Effct Green (s)	26.5	26.5	120.0	9.4	9.4	21.0	74.0	74.0	49.0	49.0	49.0
Actuated g/C Ratio	0.22	0.22	1.00	0.08	0.08	0.18	0.62	0.62	0.41	0.41	0.41
v/c Ratio	0.76	0.79	0.22	0.45	0.26	1.20	0.78	0.07	1.18	0.70	0.52
Control Delay	46.3	48.7	0.3	61.8	31.8	160.8	20.2	2.5	206.1	32.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	48.7	0.3	61.8	31.8	160.8	20.2	2.5	206.1	32.5	12.2
LOS	D	D	A	E	C	F	C	A	F	C	B
Approach Delay		29.6		50.8			44.0			35.5	
Approach LOS		C		D			D			D	
Queue Length 50th (ft)	238	252	0	48	11	~352	477	1	~67	334	83
Queue Length 95th (ft)	m#336	m#338	m0	84	31	#543	574	14	#132	412	176
Internal Link Dist (ft)		3444		214			176			586	
Turn Bay Length (ft)	310		120			140			135		135
Base Capacity (vph)	372	375	1583	243	230	310	2182	1003	62	1445	794
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.79	0.22	0.26	0.16	1.20	0.78	0.07	1.18	0.70	0.52

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 38.6 Intersection LOS: D
Intersection Capacity Utilization 78.9% ICU Level of Service D
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1695	1583		1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	1681	1695	1583		1824	1583	1770	3539	1583	155	3539	1583
Volume (vph)	488	29	324	24	30	26	347	1613	58	55	958	376
Peak-hour factor, PHF	0.90	0.79	0.92	0.90	0.82	0.71	0.93	0.95	0.79	0.75	0.95	0.92
Adj. Flow (vph)	542	37	352	27	37	37	373	1698	73	73	1008	409
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	27	0	0	150
Lane Group Flow (vph)	282	297	352	0	64	17	373	1698	46	73	1008	259
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	26.5	26.5	120.0		8.3	8.3	21.0	73.2	73.2	48.2	48.2	48.2
Effective Green, g (s)	26.5	26.5	120.0		8.3	8.3	21.0	73.2	73.2	48.2	48.2	48.2
Actuated g/C Ratio	0.22	0.22	1.00		0.07	0.07	0.18	0.61	0.61	0.40	0.40	0.40
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	371	374	1583		126	109	310	2159	966	62	1421	636
v/s Ratio Prot	0.17	c0.18			c0.04		c0.21	0.48			0.28	
v/s Ratio Perm			0.22			0.01			0.03	c0.47		0.16
v/c Ratio	0.76	0.79	0.22		0.51	0.15	1.20	0.79	0.05	1.18	0.71	0.41
Uniform Delay, d1	43.8	44.2	0.0		53.9	52.5	49.5	17.5	9.4	35.9	30.0	25.7
Progression Factor	0.75	0.75	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.0	8.8	0.3		3.2	0.6	118.1	3.0	0.1	170.2	3.0	1.9
Delay (s)	39.7	41.8	0.3		57.1	53.2	167.6	20.5	9.5	206.1	33.1	27.6
Level of Service	D	D	A		E	D	F	C	A	F	C	C
Approach Delay (s)		25.4			55.7			45.7			40.0	
Approach LOS		C			E			D			D	

Intersection Summary

HCM Average Control Delay	40.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	495	623	676	58	169
Act Effct Green (s)	59.5	96.0	96.0	16.0	52.5
Actuated g/C Ratio	0.50	0.80	0.80	0.13	0.44
v/c Ratio	0.55	0.92	0.45	0.25	0.21
Control Delay	24.0	38.1	4.9	49.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	38.1	4.9	49.7	2.7
LOS	C	D	A	D	A
Approach Delay	24.0		20.8	14.7	
Approach LOS	C		C	B	
Queue Length 50th (ft)	241	289	133	41	0
Queue Length 95th (ft)	m425	400	183	83	30
Internal Link Dist (ft)	1884		931	1404	
Turn Bay Length (ft)		150			150
Base Capacity (vph)	905	847	1490	236	958
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.74	0.45	0.25	0.18

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 41 (34%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 20.9		Intersection LOS: C	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1812		1770	1863	1770	1583
Flt Permitted	1.00		0.31	1.00	0.95	1.00
Satd. Flow (perm)	1812		574	1863	1770	1583
Volume (vph)	380	89	579	608	54	150
Peak-hour factor, PHF	0.96	0.90	0.93	0.90	0.93	0.89
Adj. Flow (vph)	396	99	623	676	58	169
RTOR Reduction (vph)	6	0	0	0	0	101
Lane Group Flow (vph)	489	0	623	676	58	68
Turn Type			pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases			2			4
Actuated Green, G (s)	59.5		96.0	96.0	16.0	48.5
Effective Green, g (s)	59.5		96.0	96.0	16.0	48.5
Actuated g/C Ratio	0.50		0.80	0.80	0.13	0.40
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	898		783	1490	236	693
v/s Ratio Prot	0.27		c0.22	0.36	c0.03	0.03
v/s Ratio Perm			c0.42			0.02
v/c Ratio	0.54		0.80	0.45	0.25	0.10
Uniform Delay, d1	20.9		12.2	3.8	46.6	22.2
Progression Factor	0.92		1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4		5.6	1.0	2.5	0.1
Delay (s)	21.6		17.8	4.8	49.1	22.2
Level of Service	C		B	A	D	C
Approach Delay (s)	21.6			11.0	29.1	
Approach LOS	C			B	C	

Intersection Summary				
HCM Average Control Delay	15.7	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.71			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	70.8%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	664	359	158	639	609	88	41
Act Effct Green (s)	62.2	109.8	62.2	62.2	42.0	42.0	7.8
Actuated g/C Ratio	0.52	0.92	0.52	0.52	0.35	0.35	0.06
v/c Ratio	0.88	0.24	1.52	0.66	0.98	0.14	0.34
Control Delay	34.6	0.1	279.1	12.4	71.3	7.8	55.1
Queue Delay	16.9	0.4	0.0	0.4	0.0	0.0	0.0
Total Delay	51.5	0.5	279.1	12.8	71.3	7.8	55.1
LOS	D	A	F	B	E	A	E
Approach Delay	33.6			65.6		63.3	55.1
Approach LOS	C			E		E	E
Queue Length 50th (ft)	415	0	~180	188	465	5	27
Queue Length 95th (ft)	m#562	m0	m#240	m224	#706	5	27
Internal Link Dist (ft)	399			3444		602	274
Turn Bay Length (ft)			150		150		
Base Capacity (vph)	751	1479	104	965	620	616	247
Starvation Cap Reductn	94	669	0	0	0	0	0
Spillback Cap Reductn	0	0	0	63	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.44	1.52	0.71	0.98	0.14	0.17

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 16 (13%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.52			
Intersection Signal Delay: 52.0		Intersection LOS: D	
Intersection Capacity Utilization 111.2%		ICU Level of Service H	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.87			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1861	1583	1770	1861		1770	1615			1821	
Flt Permitted		0.98	1.00	0.20	1.00		0.95	1.00			0.99	
Satd. Flow (perm)		1827	1583	379	1861		1770	1615			1821	
Volume (vph)	9	603	341	142	596	4	554	5	68	4	13	4
Peak-hour factor, PHF	0.58	0.93	0.95	0.90	0.94	0.75	0.91	0.50	0.87	0.75	0.42	0.75
Adj. Flow (vph)	16	648	359	158	634	5	609	10	78	5	31	5
RTOR Reduction (vph)	0	0	52	0	0	0	0	51	0	0	5	0
Lane Group Flow (vph)	0	664	307	158	639	0	609	37	0	0	36	0
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		6	4		2		4	4		8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)		60.6	102.6	60.6	60.6		42.0	42.0			5.4	
Effective Green, g (s)		60.6	102.6	60.6	60.6		42.0	42.0			5.4	
Actuated g/C Ratio		0.50	0.86	0.50	0.50		0.35	0.35			0.05	
Clearance Time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		923	1406	191	940		620	565			82	
v/s Ratio Prot			0.08		0.34		c0.34	0.02			c0.02	
v/s Ratio Perm		0.36	0.12	c0.42								
v/c Ratio		0.72	0.22	0.83	0.68		0.98	0.07			0.44	
Uniform Delay, d1		23.1	1.6	25.2	22.4		38.6	25.9			55.8	
Progression Factor		1.05	0.00	0.58	0.45		1.00	1.00			1.00	
Incremental Delay, d2		1.5	0.0	19.3	2.1		31.5	0.0			3.8	
Delay (s)		25.8	0.0	34.1	12.2		70.1	26.0			59.6	
Level of Service		C	A	C	B		E	C			E	
Approach Delay (s)		16.7			16.6			64.5			59.6	
Approach LOS		B			B			E			E	

Intersection Summary					
HCM Average Control Delay	30.4	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.87				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	111.2%	ICU Level of Service	H		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	37	89	437	137	58	1217	1785
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	0	67	358	0	103	45	1038	76	3	1734	5
Peak Hour Factor	0.46	0.92	0.75	0.82	0.92	0.75	0.77	0.93	0.75	0.50	0.98	0.50
Hourly flow rate (vph)	37	0	89	437	0	137	58	1116	101	6	1769	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.89	0.89		0.89	0.89	0.89				0.89		
vC, conflicting volume	2461	3121	890	2180	3075	609	1779			1217		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2518	3260	890	2203	3208	436	1779			1121		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	69	0	100	73	83			99		
cM capacity (veh/h)	8	7	286	13	7	505	345			551		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	37	89	574	58	744	473	891	895
Volume Left	37	0	437	58	0	0	6	0
Volume Right	0	89	137	0	0	101	0	10
cSH	8	286	17	345	1700	1700	551	1700
Volume to Capacity	4.69	0.31	33.73	0.17	0.44	0.28	0.01	0.53
Queue Length 95th (ft)	Err	32	Err	15	0	0	1	0
Control Delay (s)	Err	23.2	Err	17.5	0.0	0.0	0.3	0.0
Lane LOS	F	C	F	C			A	
Approach Delay (s)	2942.4		Err	0.8			0.2	
Approach LOS	F		F					

Intersection Summary					
Average Delay	1624.8				
Intersection Capacity Utilization	83.3%	ICU Level of Service		E	
Analysis Period (min)	15				

Future AM Intersection Analysis

Future 2014 AM

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	2010	267	465	905	1183	1450
Act Effct Green (s)	35.0	35.0	17.0	56.0	56.0	56.0
Actuated g/C Ratio	0.29	0.29	0.14	0.47	0.47	0.47
v/c Ratio	0.91	0.41	0.96	0.38	0.51	1.05
Control Delay	48.5	5.8	70.3	13.7	23.3	68.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	5.8	70.3	13.7	23.3	68.1
LOS	D	A	E	B	C	E
Approach Delay	43.5			32.9		
Approach LOS	D			C		
Queue Length 50th (ft)	371	0	179	157	221	~660
Queue Length 95th (ft)	413	62	m#267	m184	262	#813
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	2200	651	486	2373	2329	1378
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.41	0.96	0.38	0.51	1.05

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 101 (84%), Referenced to phase 2:WBT and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 43.1		Intersection LOS: D	
Intersection Capacity Utilization 106.5%		ICU Level of Service G	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1930	254	432	842	0	0	0	0	1100	0	1363
Peak-hour factor, PHF	0.92	0.96	0.95	0.93	0.93	0.92	0.92	0.92	0.92	0.93	0.92	0.94
Adj. Flow (vph)	0	2010	267	465	905	0	0	0	0	1183	0	1450
RTOR Reduction (vph)	0	0	189	0	0	0	0	0	0	0	0	78
Lane Group Flow (vph)	0	2010	78	465	905	0	0	0	0	1183	0	1372
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		35.0	35.0	17.0	56.0					56.0		56.0
Effective Green, g (s)		35.0	35.0	17.0	56.0					56.0		56.0
Actuated g/C Ratio		0.29	0.29	0.14	0.47					0.47		0.47
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		2200	462	486	2373					2329		1301
v/s Ratio Prot		c0.27		c0.14	0.18					0.24		
v/s Ratio Perm			0.05									c0.49
v/c Ratio		0.91	0.17	0.96	0.38					0.51		1.05
Uniform Delay, d1		41.0	31.7	51.1	20.8					22.4		32.0
Progression Factor		1.00	1.00	0.90	0.64					1.00		1.00
Incremental Delay, d2		7.3	0.8	22.5	0.3					0.2		40.7
Delay (s)		48.3	32.4	68.3	13.6					22.5		72.7
Level of Service		D	C	E	B					C		E
Approach Delay (s)		46.5			32.2			0.0			50.2	
Approach LOS		D			C			A			D	

Intersection Summary					
HCM Average Control Delay	44.9	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.99				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	106.5%	ICU Level of Service		G	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1145	2170	1424	576	344	327	885
Act Effct Green (s)	41.8	82.6	36.8	36.8	29.4	29.4	29.4
Actuated g/C Ratio	0.35	0.69	0.31	0.31	0.24	0.24	0.24
v/c Ratio	0.96	0.62	1.02dr	0.84	0.83	0.93	0.86
Control Delay	42.9	2.4	20.6	14.9	61.5	75.8	51.0
Queue Delay	0.0	0.2	0.0	0.7	0.0	0.0	0.0
Total Delay	42.9	2.6	20.6	15.6	61.5	75.8	51.0
LOS	D	A	C	B	E	E	D
Approach Delay		16.5	19.2			58.5	
Approach LOS		B	B			E	
Queue Length 50th (ft)	408	40	154	106	265	293	244
Queue Length 95th (ft)	m#569	43	m177	m118	#424	#512	302
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1202	3500	2139	689	420	359	1049
Starvation Cap Reductn	0	429	0	17	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	0.95	0.71	0.67	0.86	0.82	0.91	0.84

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 37 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 26.8 Intersection LOS: C
Intersection Capacity Utilization 106.5% ICU Level of Service G
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.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.94	0.85	1.00	0.96	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (prot)	3433	5085			6650	1203	1681	1394	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (perm)	3433	5085			6650	1203	1681	1394	4085			
Volume (vph)	1088	1996	0	0	764	1116	554	0	930	0	0	0
Peak-hour factor, PHF	0.95	0.92	0.92	0.92	0.90	0.97	0.96	0.92	0.95	0.92	0.92	0.92
Adj. Flow (vph)	1145	2170	0	0	849	1151	577	0	979	0	0	0
RTOR Reduction (vph)	0	0	0	0	101	320	0	11	28	0	0	0
Lane Group Flow (vph)	1145	2170	0	0	1323	256	344	316	857	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	41.8	82.6			36.8	36.8	29.4	29.4	29.4			
Effective Green, g (s)	41.8	82.6			36.8	36.8	29.4	29.4	29.4			
Actuated g/C Ratio	0.35	0.69			0.31	0.31	0.24	0.24	0.24			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1196	3500			2039	369	412	342	1001			
v/s Ratio Prot	c0.33	0.43			0.20		0.20	c0.23				
v/s Ratio Perm						c0.21			0.21			
v/c Ratio	0.96	0.62			1.02dr	0.69	0.83	0.93	0.86			
Uniform Delay, d1	38.2	10.2			36.0	36.6	43.0	44.2	43.3			
Progression Factor	0.76	0.18			0.60	0.83	1.00	1.00	1.00			
Incremental Delay, d2	12.4	0.6			1.0	6.4	13.6	30.0	7.3			
Delay (s)	41.4	2.4			22.7	36.9	56.6	74.2	50.6			
Level of Service	D	A			C	D	E	E	D			
Approach Delay (s)		15.9			26.8			56.9			0.0	
Approach LOS		B			C			E			A	

Intersection Summary

HCM Average Control Delay	28.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.5%	ICU Level of Service	G
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1072	1324	577	182	798	927	1293	652	209	288	435
Act Effct Green (s)	28.8	42.0	42.0	11.0	24.2	33.0	39.0	54.0	12.0	18.0	50.8
Actuated g/C Ratio	0.24	0.35	0.35	0.09	0.20	0.28	0.32	0.45	0.10	0.15	0.42
v/c Ratio	0.89	1.07	0.46	1.12	0.77	0.98	1.12	0.90	1.18	0.60	0.37
Control Delay	54.9	78.0	8.5	163.9	41.6	68.7	105.6	47.2	171.3	53.4	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	78.0	8.5	163.9	41.6	68.7	105.6	47.2	171.3	53.4	23.4
LOS	D	E	A	F	D	E	F	D	F	D	C
Approach Delay		56.2			64.3		80.4			65.9	
Approach LOS		E			E		F			E	
Queue Length 50th (ft)	277	~587	30	~167	189	368	~608	447	~194	122	124
Queue Length 95th (ft)	m#343	m#730	m63	#320	204	#506	#746	#690	#333	175	171
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	1206	1239	1248	162	1035	944	1150	723	177	481	1171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.07	0.46	1.12	0.77	0.98	1.12	0.90	1.18	0.60	0.37

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 67.4 Intersection LOS: E
Intersection Capacity Utilization 101.6% ICU Level of Service G
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4909		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4909		3433	3539	1583	1770	3204	2723
Volume (vph)	1029	1271	542	164	583	156	899	1228	639	182	259	396
Peak-hour factor, PHF	0.96	0.96	0.94	0.90	0.95	0.85	0.97	0.95	0.98	0.87	0.90	0.91
Adj. Flow (vph)	1072	1324	577	182	614	184	927	1293	652	209	288	435
RTOR Reduction (vph)	0	0	273	0	46	0	0	0	12	0	0	14
Lane Group Flow (vph)	1072	1324	304	182	752	0	927	1293	640	209	288	421
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	28.8	42.0	42.0	11.0	24.2		33.0	39.0	50.0	12.0	18.0	46.8
Effective Green, g (s)	28.8	42.0	42.0	11.0	24.2		33.0	39.0	50.0	12.0	18.0	46.8
Actuated g/C Ratio	0.24	0.35	0.35	0.09	0.20		0.28	0.32	0.42	0.10	0.15	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1198	1239	975	162	990		944	1150	712	177	481	1153
v/s Ratio Prot	0.21	c0.37		c0.10	0.15		0.27	c0.37	0.08	c0.12	0.09	0.09
v/s Ratio Perm			0.11						0.32			0.07
v/c Ratio	0.89	1.07	0.31	1.12	0.76		0.98	1.12	0.90	1.18	0.60	0.37
Uniform Delay, d1	44.1	39.0	28.5	54.5	45.2		43.2	40.5	32.7	54.0	47.6	26.0
Progression Factor	1.06	0.93	0.98	1.28	0.87		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.5	42.5	0.6	103.9	4.9		24.8	67.7	14.2	124.7	2.0	0.2
Delay (s)	53.5	78.7	28.4	173.9	44.1		68.0	108.2	46.8	178.7	49.6	26.2
Level of Service	D	E	C	F	D		E	F	D	F	D	C
Approach Delay (s)		59.8			68.2			81.3			67.7	
Approach LOS		E			E			F			E	

Intersection Summary

HCM Average Control Delay	69.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	251	1652	6	1159	26	10	148	103
Act Effct Green (s)	94.4	92.5	82.0	76.5	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.79	0.77	0.68	0.64	0.15	0.15	0.15	0.15
v/c Ratio	0.70	0.61	0.03	0.53	0.15	0.03	0.72	0.19
Control Delay	18.3	5.7	3.3	5.6	43.9	0.2	67.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
Total Delay	18.3	5.7	3.3	5.6	43.9	0.2	69.0	0.8
LOS	B	A	A	A	D	A	E	A
Approach Delay		7.4		5.5		31.7		41.0
Approach LOS		A		A		C		D
Queue Length 50th (ft)	92	165	1	90	18	0	111	0
Queue Length 95th (ft)	m97	m249	m1	m258	30	0	104	0
Internal Link Dist (ft)		1091		72		476		222
Turn Bay Length (ft)	90		65		50		55	
Base Capacity (vph)	488	2719	255	2185	249	470	291	618
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	93	0	0	0	55	42	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.63	0.02	0.53	0.10	0.02	0.59	0.17

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 101 (84%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.96		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3524		1770	3389		1770	1583		1770	1583	
Flt Permitted	0.18	1.00		0.13	1.00		0.60	1.00		0.75	1.00	
Satd. Flow (perm)	329	3524		234	3389		1124	1583		1399	1583	
Volume (vph)	203	1509	34	3	772	253	17	0	5	86	0	69
Peak-hour factor, PHF	0.81	0.94	0.72	0.50	0.93	0.77	0.65	0.92	0.50	0.58	0.92	0.67
Adj. Flow (vph)	251	1605	47	6	830	329	26	0	10	148	0	103
RTOR Reduction (vph)	0	1	0	0	25	0	0	9	0	0	88	0
Lane Group Flow (vph)	251	1651	0	6	1134	0	26	1	0	148	15	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	94.4	89.3		77.6	76.5		17.6	17.6		17.6	17.6	
Effective Green, g (s)	94.4	89.3		77.6	76.5		17.6	17.6		17.6	17.6	
Actuated g/C Ratio	0.79	0.74		0.65	0.64		0.15	0.15		0.15	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	426	2622		165	2160		165	232		205	232	
v/s Ratio Prot	c0.07	c0.47		0.00	0.33			0.00			0.01	
v/s Ratio Perm	0.40			0.02			0.02			c0.11		
v/c Ratio	0.59	0.63		0.04	0.52		0.16	0.01		0.72	0.07	
Uniform Delay, d1	7.8	7.4		8.1	11.9		44.7	43.7		48.9	44.1	
Progression Factor	1.48	0.76		0.57	0.39		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.1	0.5		0.4	0.0		11.8	0.1	
Delay (s)	11.8	5.7		4.7	5.2		45.2	43.7		60.7	44.2	
Level of Service	B	A		A	A		D	D		E	D	
Approach Delay (s)		6.5			5.2			44.8			53.9	
Approach LOS		A			A			D			D	

Intersection Summary					
HCM Average Control Delay	10.0	HCM Level of Service	A		
HCM Volume to Capacity ratio	0.63				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	67.6%	ICU Level of Service	C		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1859	0	1770	1798	0	0	1653	0	1770	1591	0
Flt Permitted	0.063			0.068				0.987		0.950		
Satd. Flow (perm)	117	1859	0	127	1798	0	0	1653	0	1770	1591	0
Satd. Flow (RTOR)		1			18			47			153	
Volume (vph)	250	1480	11	3	789	207	8	0	22	209	1	139
Lane Group Flow (vph)	305	1574	0	12	1104	0	0	63	0	230	157	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	17.0	80.0	0.0	63.0	63.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0
Act Effct Green (s)	80.1	80.1		63.1	63.1			7.3		22.5	22.5	
Actuated g/C Ratio	0.67	0.67		0.53	0.53			0.06		0.19	0.19	
v/c Ratio	1.19	1.27		0.18	1.16			0.43		0.69	0.37	
Control Delay	151.8	150.2		20.0	105.3			30.6		57.4	9.8	
Queue Delay	0.0	4.6		0.0	1.1			0.0		1.6	0.0	
Total Delay	151.8	154.8		20.0	106.4			30.6		59.0	9.8	
LOS	F	F		B	F			C		E	A	
Approach Delay		154.3			105.4			30.6			39.0	
Approach LOS		F			F			C			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 54 (45%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 123.3		Intersection LOS: F	
Intersection Capacity Utilization 110.1%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97			0.90		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1860		1770	1798			1654		1770	1590	
Flt Permitted	0.06	1.00		0.06	1.00			0.99		0.95	1.00	
Satd. Flow (perm)	112	1860		120	1798			1654		1770	1590	
Volume (vph)	250	1480	11	3	789	207	8	0	22	209	1	139
Peak-hour factor, PHF	0.82	0.95	0.67	0.25	0.93	0.81	0.50	0.92	0.47	0.91	0.25	0.91
Adj. Flow (vph)	305	1558	16	12	848	256	16	0	47	230	4	153
RTOR Reduction (vph)	0	0	0	0	9	0	0	45	0	0	124	0
Lane Group Flow (vph)	305	1574	0	12	1095	0	0	18	0	230	33	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	79.3	79.3		62.3	62.3			6.2		22.5	22.5	
Effective Green, g (s)	79.3	79.3		62.3	62.3			6.2		22.5	22.5	
Actuated g/C Ratio	0.66	0.66		0.52	0.52			0.05		0.19	0.19	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	254	1229		62	933			85		332	298	
v/s Ratio Prot	0.13	c0.85			0.61			c0.01		c0.13	0.02	
v/s Ratio Perm	0.66			0.10								
v/c Ratio	1.20	1.28		0.19	1.17			0.22		0.69	0.11	
Uniform Delay, d1	50.1	20.4		15.4	28.8			54.6		45.5	40.4	
Progression Factor	1.06	1.15		0.78	0.82			1.00		1.00	1.00	
Incremental Delay, d2	117.2	131.5		5.3	87.4			1.3		6.1	0.2	
Delay (s)	170.4	154.8		17.3	111.1			55.9		51.7	40.6	
Level of Service	F	F		B	F			E		D	D	
Approach Delay (s)		157.4			110.1			55.9			47.2	
Approach LOS		F			F			E			D	

Intersection Summary					
HCM Average Control Delay	127.8	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.10				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	110.1%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1750	907	180	8
Act Effct Green (s)	96.1	96.1	15.9	15.9
Actuated g/C Ratio	0.80	0.80	0.13	0.13
v/c Ratio	1.19	0.65	0.92	0.04
Control Delay	98.3	6.4	89.4	35.5
Queue Delay	25.9	35.1	1.5	0.0
Total Delay	124.2	41.4	90.8	35.5
LOS	F	D	F	D
Approach Delay	124.2	41.4	90.8	35.5
Approach LOS	F	D	F	D
Queue Length 50th (ft)	~1634	308	133	3
Queue Length 95th (ft)	m#1403	m249	38	18
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1474	1385	196	216
Starvation Cap Reductn	26	530	0	0
Spillback Cap Reductn	69	273	2	1
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.25	1.06	0.93	0.04

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 49 (41%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.19		
Intersection Signal Delay: 95.5	Intersection LOS: F	
Intersection Capacity Utilization 111.0%	ICU Level of Service H	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		1845			1859			1739			1695	
Flt Permitted		0.99			0.93			0.78			0.92	
Satd. Flow (perm)		1836			1728			1401			1595	
Volume (vph)	5	1572	105	16	845	3	115	1	29	1	0	1
Peak-hour factor, PHF	0.50	0.97	0.88	0.75	0.96	0.50	0.86	0.25	0.69	0.25	0.92	0.25
Adj. Flow (vph)	10	1621	119	21	880	6	134	4	42	4	0	4
RTOR Reduction (vph)	0	2	0	0	0	0	0	10	0	0	3	0
Lane Group Flow (vph)	0	1748	0	0	907	0	0	170	0	0	5	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		96.1			96.1			15.9			15.9	
Effective Green, g (s)		96.1			96.1			15.9			15.9	
Actuated g/C Ratio		0.80			0.80			0.13			0.13	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1470			1384			186			211	
v/s Ratio Prot												
v/s Ratio Perm		c0.95			0.52			c0.12			0.00	
v/c Ratio		1.19			0.66			0.92			0.02	
Uniform Delay, d1		12.0			5.0			51.4			45.3	
Progression Factor		0.63			1.15			0.86			1.00	
Incremental Delay, d2		85.7			0.2			41.8			0.0	
Delay (s)		93.2			6.0			85.7			45.3	
Level of Service		F			A			F			D	
Approach Delay (s)		93.2			6.0			85.7			45.3	
Approach LOS		F			A			F			D	

Intersection Summary			
HCM Average Control Delay	64.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1690	1583	0	1807	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.955			0.970		0.950			0.304		
Satd. Flow (perm)	1681	1690	1583	0	1807	1583	1770	3539	1583	566	3539	1583
Satd. Flow (RTOR)			501			84			42			138
Volume (vph)	497	11	925	55	30	70	345	662	25	21	1453	311
Lane Group Flow (vph)	262	277	944	0	126	84	379	744	42	31	1529	346
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	21.0	21.0	0.0	20.0	20.0	20.0	27.0	79.0	79.0	52.0	52.0	52.0
Act Effct Green (s)	20.0	20.0	120.0		13.0	13.0	23.0	75.0	75.0	48.0	48.0	48.0
Actuated g/C Ratio	0.17	0.17	1.00		0.11	0.11	0.19	0.62	0.62	0.40	0.40	0.40
v/c Ratio	0.93	0.98	0.60		0.65	0.34	1.12	0.34	0.04	0.14	1.08	0.48
Control Delay	69.1	78.9	0.9		66.1	13.8	129.3	11.2	2.7	25.0	83.7	18.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	78.9	0.9		66.1	13.8	129.3	11.2	2.7	25.0	83.7	18.0
LOS	E	E	A		E	B	F	B	A	C	F	B
Approach Delay		27.5			45.2			49.3			70.8	
Approach LOS		C			D			D			E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 91 (76%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.12			
Intersection Signal Delay: 51.0		Intersection LOS: D	
Intersection Capacity Utilization 90.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1690	1583		1806	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.97	1.00	0.95	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	1681	1690	1583		1806	1583	1770	3539	1583	566	3539	1583
Volume (vph)	497	11	925	55	30	70	345	662	25	21	1453	311
Peak-hour factor, PHF	0.95	0.67	0.98	0.70	0.64	0.83	0.91	0.89	0.59	0.67	0.95	0.90
Adj. Flow (vph)	523	16	944	79	47	84	379	744	42	31	1529	346
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	16	0	0	83
Lane Group Flow (vph)	262	277	944	0	126	9	379	744	26	31	1529	263
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	20.0	20.0	120.0		13.0	13.0	23.0	75.0	75.0	48.0	48.0	48.0
Effective Green, g (s)	20.0	20.0	120.0		13.0	13.0	23.0	75.0	75.0	48.0	48.0	48.0
Actuated g/C Ratio	0.17	0.17	1.00		0.11	0.11	0.19	0.62	0.62	0.40	0.40	0.40
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	280	282	1583		196	171	339	2212	989	226	1416	633
v/s Ratio Prot	0.16	c0.16			0.07		c0.21	0.21			c0.43	
v/s Ratio Perm			c0.60			0.01			0.02	0.05		0.17
v/c Ratio	0.94	0.98	0.60		0.64	0.05	1.12	0.34	0.03	0.14	1.08	0.42
Uniform Delay, d1	49.4	49.8	0.0		51.3	48.0	48.5	10.7	8.6	22.9	36.0	25.9
Progression Factor	0.82	0.83	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.2	34.5	0.9		7.0	0.1	84.7	0.4	0.0	1.3	48.6	2.0
Delay (s)	64.9	75.6	0.9		58.3	48.1	133.2	11.1	8.6	24.1	84.6	27.9
Level of Service	E	E	A		E	D	F	B	A	C	F	C
Approach Delay (s)		26.2			54.2			50.7			73.3	
Approach LOS		C			D			D			E	

Intersection Summary					
HCM Average Control Delay	52.3	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.99				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	90.0%	ICU Level of Service		E	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1835	0	1770	1863	1770	1583
Flt Permitted			0.070		0.950	
Satd. Flow (perm)	1835	0	130	1863	1770	1583
Satd. Flow (RTOR)	6					248
Volume (vph)	670	80	163	364	135	800
Lane Group Flow (vph)	873	0	194	414	150	833
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	57.0	0.0	13.0	70.0	50.0	50.0
Act Effct Green (s)	53.0		66.0	66.0	46.0	46.0
Actuated g/C Ratio	0.44		0.55	0.55	0.38	0.38
v/c Ratio	1.07		0.99	0.40	0.22	1.10
Control Delay	85.3		92.8	17.1	26.1	87.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	85.3		92.8	17.1	26.1	87.8
LOS	F		F	B	C	F
Approach Delay	85.3			41.3	78.4	
Approach LOS	F			D	E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 52 (43%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 71.7		Intersection LOS: E	
Intersection Capacity Utilization 96.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1836		1770	1863	1770	1583
Flt Permitted	1.00		0.07	1.00	0.95	1.00
Satd. Flow (perm)	1836		131	1863	1770	1583
Volume (vph)	670	80	163	364	135	800
Peak-hour factor, PHF	0.86	0.85	0.84	0.88	0.90	0.96
Adj. Flow (vph)	779	94	194	414	150	833
RTOR Reduction (vph)	3	0	0	0	0	153
Lane Group Flow (vph)	870	0	194	414	150	680
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	53.0		66.0	66.0	46.0	46.0
Effective Green, g (s)	53.0		66.0	66.0	46.0	46.0
Actuated g/C Ratio	0.44		0.55	0.55	0.38	0.38
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	811		195	1025	679	607
v/s Ratio Prot	c0.47		c0.07	0.22	0.08	
v/s Ratio Perm			0.47			c0.43
v/c Ratio	1.07		0.99	0.40	0.22	1.12
Uniform Delay, d1	33.5		57.7	15.6	24.9	37.0
Progression Factor	0.98		1.00	1.00	1.00	1.00
Incremental Delay, d2	52.8		62.6	1.2	0.8	74.3
Delay (s)	85.7		120.3	16.8	25.7	111.3
Level of Service	F		F	B	C	F
Approach Delay (s)	85.7			49.8	98.2	
Approach LOS	F			D	F	

Intersection Summary					
HCM Average Control Delay	81.9	HCM Level of Service	F		
HCM Volume to Capacity ratio	1.09				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	96.3%	ICU Level of Service	F		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	1161	527	666	477	21
Act Effct Green (s)	83.0	83.0	83.0	29.0	29.0
Actuated g/C Ratio	0.69	0.69	0.69	0.24	0.24
v/c Ratio	0.91	0.42	1.12	1.36	0.05
Control Delay	10.9	0.4	75.4	215.9	23.0
Queue Delay	78.9	1.4	21.5	3.5	0.0
Total Delay	89.8	1.7	96.9	219.4	23.0
LOS	F	A	F	F	C
Approach Delay	62.3		96.9	219.4	23.0
Approach LOS	E		F	F	C
Queue Length 50th (ft)	413	6	~605	~481	6
Queue Length 95th (ft)	m237	m2	m#498	#440	22
Internal Link Dist (ft)	399		3443	528	208
Turn Bay Length (ft)					
Base Capacity (vph)	1274	1245	596	350	406
Starvation Cap Reductn	287	497	0	0	0
Spillback Cap Reductn	0	0	26	2	2
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.18	0.70	1.17	1.37	0.05

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 60 (50%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 96.3 Intersection LOS: F
Intersection Capacity Utilization 96.5% ICU Level of Service F
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.96			0.93	
Flt Protected		1.00	1.00		1.00			0.97			0.99	
Satd. Flow (prot)		1861	1583		1847			1733			1711	
Flt Permitted		0.99	1.00		0.46			0.78			0.95	
Satd. Flow (perm)		1842	1583		860			1401			1647	
Volume (vph)	9	1065	506	34	552	14	303	11	116	4	4	7
Peak-hour factor, PHF	0.58	0.93	0.96	0.72	0.93	0.55	0.92	0.67	0.88	0.75	0.75	0.62
Adj. Flow (vph)	16	1145	527	47	594	25	329	16	132	5	5	11
RTOR Reduction (vph)	0	0	150	0	1	0	0	11	0	0	8	0
Lane Group Flow (vph)	0	1161	377	0	665	0	0	466	0	0	13	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		83.0	83.0		83.0			29.0			29.0	
Effective Green, g (s)		83.0	83.0		83.0			29.0			29.0	
Actuated g/C Ratio		0.69	0.69		0.69			0.24			0.24	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1274	1095		595			339			398	
v/s Ratio Prot												
v/s Ratio Perm		0.63	0.24		c0.77			c0.33			0.01	
v/c Ratio		0.91	0.34		1.12			1.37			0.03	
Uniform Delay, d1		15.4	7.5		18.5			45.5			34.8	
Progression Factor		0.54	0.30		0.94			1.00			1.00	
Incremental Delay, d2		1.3	0.1		55.2			185.8			0.0	
Delay (s)		9.6	2.3		72.6			231.3			34.8	
Level of Service		A	A		E			F			C	
Approach Delay (s)		7.4			72.6			231.3			34.8	
Approach LOS		A			E			F			C	

Intersection Summary

HCM Average Control Delay	60.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	117	89	82
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	16.5%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	62	32	3	69	63	5
Peak Hour Factor	0.81	0.80	0.50	0.83	0.88	0.50
Hourly flow rate (vph)	77	40	6	83	72	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			117		192	97
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			117		192	97
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		91	99
cM capacity (veh/h)			1472		794	960

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	117	89	82
Volume Left	0	6	72
Volume Right	40	0	10
cSH	1700	1472	811
Volume to Capacity	0.07	0.00	0.10
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.5	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.9
Approach LOS			A

Intersection Summary				
Average Delay		3.0		
Intersection Capacity Utilization		16.5%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	10	16	203	39	100	2476	711
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	0	9	143	1	22	88	1633	689	61	579	12
Peak Hour Factor	0.50	0.92	0.58	0.72	0.25	0.56	0.88	0.95	0.91	0.71	0.95	0.75
Hourly flow rate (vph)	10	0	16	199	4	39	100	1719	757	86	609	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.68	0.68		0.68	0.68	0.68				0.68		
vC, conflicting volume	1851	3465	313	2774	3095	1238	625			2476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1781	4148	313	3134	3604	883	625			2698		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	0	0	80	89			16		
cM capacity (veh/h)	0	0	683	1	1	197	952			102		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	10	16	242	100	1146	1330	391	321
Volume Left	10	0	199	100	0	0	86	0
Volume Right	0	16	39	0	0	757	0	16
cSH	0	683	1	952	1700	1700	102	1700
Volume to Capacity	Err	0.02	243.72	0.11	0.67	0.78	0.84	0.19
Queue Length 95th (ft)	Err	2	Err	9	0	0	119	0
Control Delay (s)	Err	10.4	Err	9.2	0.0	0.0	128.1	0.0
Lane LOS	F	B	F	A			F	
Approach Delay (s)	Err		Err	0.4			70.3	
Approach LOS	F		F					

Intersection Summary					
Average Delay	Err				
Intersection Capacity Utilization	94.4%	ICU Level of Service		F	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	739	144	39	13
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	84	477	120	7	114	11	34	0	2	5	0	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	518	130	8	124	12	37	0	2	5	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			649			919	917	584	914	977	130
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			649			919	917	584	914	977	130
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			84	100	100	98	100	99
cM capacity (veh/h)	1448			937			236	253	512	239	233	920

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	740	143	39	13
Volume Left	91	8	37	5
Volume Right	130	12	2	8
cSH	1448	937	244	421
Volume to Capacity	0.06	0.01	0.16	0.03
Queue Length 95th (ft)	5	1	14	2
Control Delay (s)	1.6	0.5	22.6	13.8
Lane LOS	A	A	C	B
Approach Delay (s)	1.6	0.5	22.6	13.8
Approach LOS			C	B

Intersection Summary					
Average Delay	2.5				
Intersection Capacity Utilization	58.1%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	523	116	41	16
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	99	262	120	14	88	5	34	0	4	4	0	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	285	130	15	96	5	37	0	4	4	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	101			415			706	697	350	698	759	98
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	101			415			706	697	350	698	759	98
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			99			89	100	99	99	100	99
cM capacity (veh/h)	1491			1144			324	334	693	330	308	958

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	523	116	41	16
Volume Left	108	15	37	4
Volume Right	130	5	4	12
cSH	1491	1144	343	635
Volume to Capacity	0.07	0.01	0.12	0.03
Queue Length 95th (ft)	6	1	10	2
Control Delay (s)	2.1	1.2	16.9	10.8
Lane LOS	A	A	C	B
Approach Delay (s)	2.1	1.2	16.9	10.8
Approach LOS			C	B

Intersection Summary					
Average Delay	3.1				
Intersection Capacity Utilization	45.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Future 2014 AM Improved

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	1072	1324	577	182	798	927	1293	652	209	288	435
Act Effct Green (s)	29.0	42.0	76.9	9.0	22.0	34.9	40.0	49.0	13.0	18.1	51.1
Actuated g/C Ratio	0.24	0.35	0.64	0.08	0.18	0.29	0.33	0.41	0.11	0.15	0.43
v/c Ratio	0.89	1.07	0.32	0.71	0.84	0.93	1.10	0.98	1.09	0.54	0.36
Control Delay	51.9	84.1	3.5	63.5	46.3	57.2	94.6	62.2	140.4	51.8	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	84.1	3.5	63.5	46.3	57.2	94.6	62.2	140.4	51.8	23.3
LOS	D	F	A	E	D	E	F	E	F	D	C
Approach Delay		56.9			49.5		75.1			58.4	
Approach LOS		E			D		E			E	
Queue Length 50th (ft)	273	~591	30	65	155	354	~596	324	~182	111	122
Queue Length 95th (ft)	m#344	m#730	m35	#115	#215	#470	#734	#690	#321	158	168
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	1206	1239	1850	257	945	1030	1180	662	192	534	1201
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.07	0.31	0.71	0.84	0.90	1.10	0.98	1.09	0.54	0.36

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 62.9		Intersection LOS: E	
Intersection Capacity Utilization 97.2%		ICU Level of Service F	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	0.97	0.91		0.97	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	3433	4909		3433	3539	1583	1770	3539	2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	3433	4909		3433	3539	1583	1770	3539	2787
Volume (vph)	1029	1271	542	164	583	156	899	1228	639	182	259	396
Peak-hour factor, PHF	0.96	0.96	0.94	0.90	0.95	0.85	0.97	0.95	0.98	0.87	0.90	0.91
Adj. Flow (vph)	1072	1324	577	182	614	184	927	1293	652	209	288	435
RTOR Reduction (vph)	0	0	39	0	45	0	0	0	15	0	0	15
Lane Group Flow (vph)	1072	1324	538	182	753	0	927	1293	637	209	288	420
Turn Type	Prot		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	29.0	42.0	76.9	9.0	22.0		34.9	40.0	49.0	13.0	18.1	47.1
Effective Green, g (s)	29.0	42.0	76.9	9.0	22.0		34.9	40.0	49.0	13.0	18.1	47.1
Actuated g/C Ratio	0.24	0.35	0.64	0.08	0.18		0.29	0.33	0.41	0.11	0.15	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1206	1239	1786	257	900		998	1180	646	192	534	1187
v/s Ratio Prot	0.21	c0.37	0.09	0.05	c0.15		0.27	c0.37	0.07	c0.12	0.08	0.09
v/s Ratio Perm			0.11						0.33			0.07
v/c Ratio	0.89	1.07	0.30	0.71	0.84		0.93	1.10	0.99	1.09	0.54	0.35
Uniform Delay, d1	43.9	39.0	9.6	54.2	47.3		41.3	40.0	35.1	53.5	47.1	25.7
Progression Factor	1.01	1.12	0.81	0.89	0.84		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	42.5	0.1	8.3	8.8		14.2	56.4	31.5	90.6	1.1	0.2
Delay (s)	50.4	86.0	7.9	56.6	48.7		55.6	96.4	66.6	144.1	48.1	25.9
Level of Service	D	F	A	E	D		E	F	E	F	D	C
Approach Delay (s)		58.0			50.2			76.5			59.3	
Approach LOS		E			D			E			E	

Intersection Summary					
HCM Average Control Delay	64.0	HCM Level of Service	E		
HCM Volume to Capacity ratio	1.04				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	97.2%	ICU Level of Service	F		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1859	0	1770	3415	0	0	1653	0	1770	1591	0
Flt Permitted	0.184			0.059				0.911		0.708		
Satd. Flow (perm)	343	1859	0	110	3415	0	0	1526	0	1319	1591	0
Satd. Flow (RTOR)		1			55			47			153	
Volume (vph)	250	1480	11	3	789	207	8	0	22	209	1	139
Lane Group Flow (vph)	305	1574	0	12	1104	0	0	63	0	230	157	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Total Split (s)	25.0	97.0	0.0	72.0	72.0	0.0	23.0	23.0	0.0	23.0	23.0	0.0
Act Effct Green (s)	93.0	93.0		68.0	68.0			19.0		19.0	19.0	
Actuated g/C Ratio	0.78	0.78		0.57	0.57			0.16		0.16	0.16	
v/c Ratio	0.59	1.09		0.19	0.56			0.22		1.10	0.41	
Control Delay	11.4	66.6		11.7	5.9			19.6		138.7	11.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	11.4	66.6		11.7	5.9			19.6		138.7	11.0	
LOS	B	E		B	A			B		F	B	
Approach Delay		57.7			6.0			19.6			86.9	
Approach LOS		E			A			B			F	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 77 (64%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 43.5		Intersection LOS: D	
Intersection Capacity Utilization 110.1%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97			0.90		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.99		0.95	1.00	
Satd. Flow (prot)	1770	1860		1770	3416			1654		1770	1590	
Flt Permitted	0.18	1.00		0.06	1.00			0.91		0.71	1.00	
Satd. Flow (perm)	342	1860		110	3416			1526		1319	1590	
Volume (vph)	250	1480	11	3	789	207	8	0	22	209	1	139
Peak-hour factor, PHF	0.82	0.95	0.67	0.25	0.93	0.81	0.50	0.92	0.47	0.91	0.25	0.91
Adj. Flow (vph)	305	1558	16	12	848	256	16	0	47	230	4	153
RTOR Reduction (vph)	0	0	0	0	24	0	0	40	0	0	129	0
Lane Group Flow (vph)	305	1574	0	12	1080	0	0	23	0	230	28	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	93.0	93.0		68.0	68.0			19.0		19.0	19.0	
Effective Green, g (s)	93.0	93.0		68.0	68.0			19.0		19.0	19.0	
Actuated g/C Ratio	0.78	0.78		0.57	0.57			0.16		0.16	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	515	1442		62	1936			242		209	252	
v/s Ratio Prot	0.10	c0.85			0.32						0.02	
v/s Ratio Perm	0.36			0.11				0.02		c0.17		
v/c Ratio	0.59	1.09		0.19	0.56			0.10		1.10	0.11	
Uniform Delay, d1	20.2	13.5		12.7	16.5			43.2		50.5	43.3	
Progression Factor	0.41	0.91		0.35	0.30			1.00		1.00	1.00	
Incremental Delay, d2	1.5	51.0		6.4	1.1			0.2		91.7	0.2	
Delay (s)	9.7	63.3		10.9	6.1			43.3		142.2	43.5	
Level of Service	A	E		B	A			D		F	D	
Approach Delay (s)		54.6			6.2			43.3			102.2	
Approach LOS		D			A			D			F	

Intersection Summary					
HCM Average Control Delay	44.0	HCM Level of Service	D		
HCM Volume to Capacity ratio	1.09				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	110.1%	ICU Level of Service	H		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1750	907	180	8
Act Effct Green (s)	94.0	94.0	18.0	18.0
Actuated g/C Ratio	0.78	0.78	0.15	0.15
v/c Ratio	0.67	0.38	0.82	0.03
Control Delay	6.7	5.8	67.9	30.0
Queue Delay	0.0	0.2	0.0	0.0
Total Delay	6.7	6.1	67.9	30.0
LOS	A	A	E	C
Approach Delay	6.7	6.1	67.9	30.0
Approach LOS	A	A	E	C
Queue Length 50th (ft)	221	102	122	3
Queue Length 95th (ft)	247	m213	35	16
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	2606	2406	370	413
Starvation Cap Reductn	1	736	0	0
Spillback Cap Reductn	55	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.69	0.54	0.49	0.02

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 87 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 69.6%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.99			1.00			0.97			0.93	
Flt Protected		1.00			1.00			0.96			0.98	
Satd. Flow (prot)		3502			3532			1739			1695	
Flt Permitted		0.95			0.87			0.78			0.92	
Satd. Flow (perm)		3324			3076			1401			1596	
Volume (vph)	5	1572	105	16	845	3	115	1	29	1	0	1
Peak-hour factor, PHF	0.50	0.97	0.88	0.75	0.96	0.50	0.86	0.25	0.69	0.25	0.92	0.25
Adj. Flow (vph)	10	1621	119	21	880	6	134	4	42	4	0	4
RTOR Reduction (vph)	0	3	0	0	0	0	0	10	0	0	3	0
Lane Group Flow (vph)	0	1747	0	0	907	0	0	170	0	0	5	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		94.0			94.0			18.0			18.0	
Effective Green, g (s)		94.0			94.0			18.0			18.0	
Actuated g/C Ratio		0.78			0.78			0.15			0.15	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2604			2410			210			239	
v/s Ratio Prot												
v/s Ratio Perm		c0.53			0.29			c0.12			0.00	
v/c Ratio		0.67			0.38			0.81			0.02	
Uniform Delay, d1		5.9			4.0			49.3			43.5	
Progression Factor		0.79			1.18			0.91			1.00	
Incremental Delay, d2		1.1			0.3			19.9			0.0	
Delay (s)		5.8			5.0			64.6			43.5	
Level of Service		A			A			E			D	
Approach Delay (s)		5.8			5.0			64.6			43.5	
Approach LOS		A			A			E			D	

Intersection Summary					
HCM Average Control Delay	9.4	HCM Level of Service	A		
HCM Volume to Capacity ratio	0.69				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	69.6%	ICU Level of Service	C		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.071		0.950	
Satd. Flow (perm)	1863	1583	132	1863	1770	1583
Satd. Flow (RTOR)		45				101
Volume (vph)	670	80	163	364	135	800
Lane Group Flow (vph)	779	94	194	414	150	833
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases		6	2			4
Total Split (s)	56.0	56.0	44.0	100.0	20.0	44.0
Act Effct Green (s)	52.0	52.0	96.0	96.0	16.0	60.0
Actuated g/C Ratio	0.43	0.43	0.80	0.80	0.13	0.50
v/c Ratio	0.97	0.13	0.30	0.28	0.64	0.99
Control Delay	59.3	12.6	13.6	3.6	62.4	55.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	12.6	13.6	3.6	62.4	55.4
LOS	E	B	B	A	E	E
Approach Delay	54.3			6.8	56.5	
Approach LOS	D			A	E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 4 (3%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 43.4		Intersection LOS: D	
Intersection Capacity Utilization 91.5%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.07	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	133	1863	1770	1583
Volume (vph)	670	80	163	364	135	800
Peak-hour factor, PHF	0.86	0.85	0.84	0.88	0.90	0.96
Adj. Flow (vph)	779	94	194	414	150	833
RTOR Reduction (vph)	0	26	0	0	0	54
Lane Group Flow (vph)	779	69	194	414	150	779
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases		6	2			4
Actuated Green, G (s)	52.0	52.0	96.0	96.0	16.0	56.0
Effective Green, g (s)	52.0	52.0	96.0	96.0	16.0	56.0
Actuated g/C Ratio	0.43	0.43	0.80	0.80	0.13	0.47
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	807	686	652	1490	236	792
v/s Ratio Prot	c0.42		0.10	0.22	0.08	c0.33
v/s Ratio Perm		0.04	0.14			0.16
v/c Ratio	0.97	0.10	0.30	0.28	0.64	0.98
Uniform Delay, d1	33.1	20.1	19.2	3.1	49.2	31.6
Progression Factor	1.04	1.06	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.3	0.3	0.3	0.5	12.4	27.8
Delay (s)	58.7	21.7	19.5	3.6	61.6	59.3
Level of Service	E	C	B	A	E	E
Approach Delay (s)	54.7			8.6	59.7	
Approach LOS	D			A	E	

Intersection Summary			
HCM Average Control Delay	45.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	1161	527	47	619	231	246	21
Act Effct Green (s)	91.3	113.7	91.3	91.3	16.0	16.0	6.4
Actuated g/C Ratio	0.76	0.95	0.76	0.76	0.13	0.13	0.05
v/c Ratio	0.83	0.34	0.63	0.44	1.03	1.00	0.21
Control Delay	10.2	0.5	38.1	5.5	119.5	100.2	39.1
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	10.2	0.6	38.1	5.5	119.5	100.2	39.1
LOS	B	A	D	A	F	F	D
Approach Delay	7.2			7.8		109.6	39.1
Approach LOS	A			A		F	D
Queue Length 50th (ft)	40	0	25	40	~202	172	8
Queue Length 95th (ft)	#1082	m0	m24	m340	#371	#200	27
Internal Link Dist (ft)	399			3443		528	208
Turn Bay Length (ft)			150		150		
Base Capacity (vph)	1402	1528	75	1410	224	247	238
Starvation Cap Reductn	0	168	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	0.83	0.39	0.63	0.44	1.03	1.00	0.09

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 24.7 Intersection LOS: C
Intersection Capacity Utilization 88.8% ICU Level of Service E
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		0.95	0.95			1.00	
Frt		1.00	0.85	1.00	0.99		1.00	0.92			0.93	
Flt Protected		1.00	1.00	0.95	1.00		0.95	0.98			0.99	
Satd. Flow (prot)		1861	1583	1770	1851		1681	1595			1711	
Flt Permitted		0.99	1.00	0.11	1.00		0.95	0.98			0.99	
Satd. Flow (perm)		1843	1583	197	1851		1681	1595			1711	
Volume (vph)	9	1065	506	34	552	14	303	11	116	4	4	7
Peak-hour factor, PHF	0.58	0.93	0.96	0.72	0.93	0.55	0.92	0.67	0.88	0.75	0.75	0.62
Adj. Flow (vph)	16	1145	527	47	594	25	329	16	132	5	5	11
RTOR Reduction (vph)	0	0	66	0	1	0	0	35	0	0	11	0
Lane Group Flow (vph)	0	1161	461	47	618	0	231	211	0	0	10	0
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		6	4		2		4	4		8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)		88.9	104.9	88.9	88.9		16.0	16.0			3.1	
Effective Green, g (s)		88.9	104.9	88.9	88.9		16.0	16.0			3.1	
Actuated g/C Ratio		0.74	0.87	0.74	0.74		0.13	0.13			0.03	
Clearance Time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1365	1437	146	1371		224	213			44	
v/s Ratio Prot			0.04		0.33		c0.14	0.13			c0.01	
v/s Ratio Perm		c0.63	0.25	0.24								
v/c Ratio		0.85	0.32	0.32	0.45		1.03	0.99			0.23	
Uniform Delay, d1		10.9	1.3	5.3	6.1		52.0	51.9			57.3	
Progression Factor		0.44	0.28	1.03	0.83		1.00	1.00			1.00	
Incremental Delay, d2		5.2	0.1	3.3	0.6		68.5	59.2			2.7	
Delay (s)		10.0	0.5	8.7	5.6		120.5	111.1			60.0	
Level of Service		A	A	A	A		F	F			E	
Approach Delay (s)		7.0			5.8			115.7			60.0	
Approach LOS		A			A			F			E	

Intersection Summary

HCM Average Control Delay	25.3	HCM Level of Service	C	
HCM Volume to Capacity ratio	0.86			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	88.8%	ICU Level of Service	E	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	10	16	203	39	100	2476	711
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	0	9	143	1	22	88	1633	689	61	579	12
Peak Hour Factor	0.50	0.92	0.58	0.72	0.25	0.56	0.88	0.95	0.91	0.71	0.95	0.75
Hourly flow rate (vph)	10	0	16	199	4	39	100	1719	757	86	609	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.67	0.67		0.67	0.67	0.67				0.67		
vC, conflicting volume	1851	3465	313	2774	3095	1238	625			2476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1779	4174	313	3148	3624	870	625			2706		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	98	0	0	80	89			14		
cM capacity (veh/h)	0	0	683	1	0	199	952			100		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	10	16	242	100	1146	1330	391	321
Volume Left	10	0	199	100	0	0	86	0
Volume Right	0	16	39	0	0	757	0	16
cSH	0	683	1	952	1700	1700	100	1700
Volume to Capacity	Err	0.02	271.40	0.11	0.67	0.78	0.86	0.19
Queue Length 95th (ft)	Err	2	Err	9	0	0	122	0
Control Delay (s)	Err	10.4	Err	9.2	0.0	0.0	136.2	0.0
Lane LOS	F	B	F	A			F	
Approach Delay (s)	Err		Err	0.4			74.8	
Approach LOS	F		F					

Intersection Summary					
Average Delay	Err				
Intersection Capacity Utilization	94.4%	ICU Level of Service		F	
Analysis Period (min)	15				

Future PM Intersection Analysis

Future 2014 PM

Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1551	488	1038	1208	774	1154
Act Effct Green (s)	26.2	26.2	37.8	68.0	44.0	44.0
Actuated g/C Ratio	0.22	0.22	0.32	0.57	0.37	0.37
v/c Ratio	0.94	0.67	0.96	0.42	0.42	1.06
Control Delay	58.2	8.6	44.4	4.1	29.4	77.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	8.6	44.4	4.1	29.4	77.3
LOS	E	A	D	A	C	E
Approach Delay	46.3			22.7		
Approach LOS	D			C		
Queue Length 50th (ft)	294	0	391	12	157	~524
Queue Length 95th (ft)	#357	97	#535	29	195	#673
Internal Link Dist (ft)	416			637		
Turn Bay Length (ft)		300				
Base Capacity (vph)	1650	727	1087	2882	1830	1092
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.67	0.95	0.42	0.42	1.06

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 68 (57%), Referenced to phase 2:WBT and 6:EBT, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.06		
Intersection Signal Delay: 41.4	Intersection LOS: D	
Intersection Capacity Utilization 89.3%	ICU Level of Service E	
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.		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Lane Util. Factor		0.81	1.00	0.97	0.91					0.94		0.88
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		7544	1583	3433	5085					4990		2787
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		7544	1583	3433	5085					4990		2787
Volume (vph)	0	1489	449	986	1160	0	0	0	0	751	0	1062
Peak-hour factor, PHF	0.92	0.96	0.92	0.95	0.96	0.92	0.92	0.92	0.92	0.97	0.93	0.92
Adj. Flow (vph)	0	1551	488	1038	1208	0	0	0	0	774	0	1154
RTOR Reduction (vph)	0	0	381	0	0	0	0	0	0	0	0	70
Lane Group Flow (vph)	0	1551	107	1038	1208	0	0	0	0	774	0	1084
Turn Type			Perm	Prot						Prot		custom
Protected Phases		6		5	2					3		
Permitted Phases			6									3
Actuated Green, G (s)		26.2	26.2	37.8	68.0					44.0		44.0
Effective Green, g (s)		26.2	26.2	37.8	68.0					44.0		44.0
Actuated g/C Ratio		0.22	0.22	0.32	0.57					0.37		0.37
Clearance Time (s)		4.0	4.0	4.0	4.0					4.0		4.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1647	346	1081	2882					1830		1022
v/s Ratio Prot		c0.21		c0.30	0.24					0.16		
v/s Ratio Perm			0.07									c0.39
v/c Ratio		0.94	0.31	0.96	0.42					0.42		1.06
Uniform Delay, d1		46.1	39.3	40.4	14.8					28.5		38.0
Progression Factor		1.00	1.00	0.70	0.25					1.00		1.00
Incremental Delay, d2		12.1	2.3	14.4	0.3					0.2		45.6
Delay (s)		58.2	41.6	42.6	4.1					28.6		83.6
Level of Service		E	D	D	A					C		F
Approach Delay (s)		54.3			21.9			0.0			61.5	
Approach LOS		D			C			A			E	

Intersection Summary				
HCM Average Control Delay	44.8	HCM Level of Service	D	
HCM Volume to Capacity ratio	1.00			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	89.3%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	882	1445	2405	578	183	172	591
Act Effct Green (s)	33.7	94.4	56.6	56.6	17.6	17.6	17.6
Actuated g/C Ratio	0.28	0.79	0.47	0.47	0.15	0.15	0.15
v/c Ratio	0.91	0.36	0.74	0.74	0.74	0.79	0.74
Control Delay	31.6	2.3	20.2	5.8	66.9	70.4	35.4
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	31.6	2.3	20.2	5.9	66.9	70.4	35.4
LOS	C	A	C	A	E	E	D
Approach Delay		13.4	17.4			47.9	
Approach LOS		B	B			D	
Queue Length 50th (ft)	252	0	282	59	141	144	102
Queue Length 95th (ft)	m351	m0	m248	m46	226	#265	149
Internal Link Dist (ft)		637	304			664	
Turn Bay Length (ft)							
Base Capacity (vph)	1030	4000	3268	780	280	244	873
Starvation Cap Reductn	0	0	0	13	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	0.86	0.36	0.74	0.75	0.65	0.70	0.68

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 7 (6%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 20.5 Intersection LOS: C
Intersection Capacity Utilization 89.3% ICU Level of Service E
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	0.97	0.91			0.76	0.76	0.95	0.81	0.86			
Frt	1.00	1.00			0.96	0.85	1.00	0.96	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (prot)	3433	5085			6829	1203	1681	1395	4085			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	0.97	1.00			
Satd. Flow (perm)	3433	5085			6829	1203	1681	1395	4085			
Volume (vph)	829	1373	0	0	1765	1098	279	0	601	0	0	0
Peak-hour factor, PHF	0.94	0.95	0.92	0.92	0.96	0.96	0.91	0.92	0.94	0.92	0.92	0.92
Adj. Flow (vph)	882	1445	0	0	1839	1144	307	0	639	0	0	0
RTOR Reduction (vph)	0	0	0	0	43	212	0	12	196	0	0	0
Lane Group Flow (vph)	882	1445	0	0	2362	366	183	160	395	0	0	0
Turn Type	Prot					Perm	custom		Perm			
Protected Phases	1	6			2		7	7				
Permitted Phases						2	7		7			
Actuated Green, G (s)	33.7	94.4			56.7	56.7	17.6	17.6	17.6			
Effective Green, g (s)	33.7	94.4			56.7	56.7	17.6	17.6	17.6			
Actuated g/C Ratio	0.28	0.79			0.47	0.47	0.15	0.15	0.15			
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	964	4000			3227	568	247	205	599			
v/s Ratio Prot	c0.26	0.28			c0.35		0.11	c0.11				
v/s Ratio Perm						0.30			0.10			
v/c Ratio	0.91	0.36			0.73	0.64	0.74	0.78	0.66			
Uniform Delay, d1	41.8	3.8			25.5	24.0	49.0	49.3	48.4			
Progression Factor	0.51	0.52			0.78	0.60	1.00	1.00	1.00			
Incremental Delay, d2	8.7	0.2			0.1	0.5	11.3	17.3	2.6			
Delay (s)	30.1	2.2			20.1	15.0	60.3	66.7	51.0			
Level of Service	C	A			C	B	E	E	D			
Approach Delay (s)		12.8			19.1			55.7			0.0	
Approach LOS		B			B			E			A	

Intersection Summary

HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	549	728	793	631	1271	806	557	372	247	1123	1234
Act Effct Green (s)	20.0	23.0	23.0	30.0	33.0	20.0	31.5	65.5	19.5	31.0	55.0
Actuated g/C Ratio	0.17	0.19	0.19	0.25	0.28	0.17	0.26	0.55	0.16	0.26	0.46
v/c Ratio	0.66	1.07	0.82	1.42	0.91	1.41	0.60	0.41	0.86	1.36	0.99
Control Delay	57.4	84.9	21.4	228.4	36.2	231.9	42.4	14.0	75.7	204.0	54.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	84.9	21.4	228.4	36.2	231.9	42.4	14.0	75.7	204.0	54.6
LOS	E	F	C	F	D	F	D	B	E	F	D
Approach Delay		53.3			100.0		124.3			121.0	
Approach LOS		D			F		F			F	
Queue Length 50th (ft)	137	~336	217	~653	349	~431	203	127	185	~664	534
Queue Length 95th (ft)	177	#453	311	m#792	m#415	#556	257	200	#308	#814	#721
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	832	678	962	443	1394	572	929	902	310	828	1252
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	1.07	0.82	1.42	0.91	1.41	0.60	0.41	0.80	1.36	0.99

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 100.0 Intersection LOS: F
Intersection Capacity Utilization 122.1% ICU Level of Service H
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	1.00	0.91		0.97	0.95	1.00	1.00	0.86	0.86
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	1770	4925		3433	3539	1583	1770	3204	2723
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	1770	4925		3433	3539	1583	1770	3204	2723
Volume (vph)	511	684	753	574	954	251	725	490	342	220	1089	1135
Peak-hour factor, PHF	0.93	0.94	0.95	0.91	0.95	0.94	0.90	0.88	0.92	0.89	0.97	0.92
Adj. Flow (vph)	549	728	793	631	1004	267	806	557	372	247	1123	1234
RTOR Reduction (vph)	0	0	428	0	40	0	0	0	40	0	0	5
Lane Group Flow (vph)	549	728	365	631	1231	0	806	557	332	247	1123	1229
Turn Type	Prot		Perm	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	20.0	23.0	23.0	30.0	33.0		20.0	31.5	61.5	19.5	31.0	51.0
Effective Green, g (s)	20.0	23.0	23.0	30.0	33.0		20.0	31.5	61.5	19.5	31.0	51.0
Actuated g/C Ratio	0.17	0.19	0.19	0.25	0.28		0.17	0.26	0.51	0.16	0.26	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	832	678	534	443	1354		572	929	864	288	828	1248
v/s Ratio Prot	0.11	c0.21		c0.36	0.25		c0.23	0.16	0.10	0.14	c0.35	0.16
v/s Ratio Perm			0.13						0.11			0.29
v/c Ratio	0.66	1.07	0.68	1.42	0.91		1.41	0.60	0.38	0.86	1.36	0.99
Uniform Delay, d1	46.8	48.5	45.1	45.0	42.1		50.0	38.7	17.8	48.9	44.5	34.1
Progression Factor	1.14	0.61	0.93	0.77	0.72		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	54.3	6.2	198.7	6.8		194.4	1.0	0.3	21.4	168.2	21.7
Delay (s)	55.2	84.0	48.0	233.5	37.0		244.4	39.8	18.0	70.3	212.7	55.9
Level of Service	E	F	D	F	D		F	D	B	E	F	E
Approach Delay (s)		62.6			102.2			130.2			124.9	
Approach LOS		E			F			F			F	

Intersection Summary

HCM Average Control Delay	105.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	122.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	177	977	10	1752	16	11	340	293
Act Effct Green (s)	78.1	78.1	67.0	67.0	31.5	31.5	31.5	31.5
Actuated g/C Ratio	0.65	0.65	0.56	0.56	0.26	0.26	0.26	0.26
v/c Ratio	0.82	0.42	0.03	0.90	0.09	0.02	0.93	0.54
Control Delay	36.3	6.5	11.4	18.9	34.2	0.0	75.4	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.3	6.5	11.4	18.9	34.2	0.0	75.4	18.1
LOS	D	A	B	B	C	A	E	B
Approach Delay		11.0		18.8		20.3		48.9
Approach LOS		B		B		C		D
Queue Length 50th (ft)	41	212	3	478	9	0	253	71
Queue Length 95th (ft)	m71	m287	m2	m288	23	0	#416	160
Internal Link Dist (ft)		1091		72		476		222
Turn Bay Length (ft)	90		65		50		55	
Base Capacity (vph)	221	2305	372	1942	181	593	384	564
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.42	0.03	0.90	0.09	0.02	0.89	0.52

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 44 (37%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	
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.			

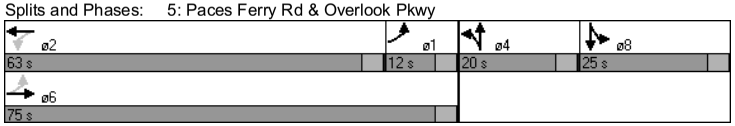
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539		1770	3457		1770	1583		1770	1583	
Flt Permitted	0.06	1.00		0.29	1.00		0.34	1.00		0.75	1.00	
Satd. Flow (perm)	114	3539		542	3457		628	1583		1398	1583	
Volume (vph)	143	938	0	5	1423	186	12	0	8	303	0	270
Peak-hour factor, PHF	0.81	0.96	0.92	0.50	0.96	0.69	0.75	0.92	0.75	0.89	0.92	0.92
Adj. Flow (vph)	177	977	0	10	1482	270	16	0	11	340	0	293
RTOR Reduction (vph)	0	0	0	0	12	0	0	8	0	0	131	0
Lane Group Flow (vph)	177	977	0	10	1740	0	16	3	0	340	162	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	74.9	74.9		67.0	67.0		31.5	31.5		31.5	31.5	
Effective Green, g (s)	74.9	74.9		67.0	67.0		31.5	31.5		31.5	31.5	
Actuated g/C Ratio	0.62	0.62		0.56	0.56		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	202	2209		319	1930		165	416		367	416	
v/s Ratio Prot	c0.07	0.28		0.00	c0.50			0.00			0.10	
v/s Ratio Perm	0.48			0.02			0.03			c0.24		
v/c Ratio	0.88	0.44		0.03	0.90		0.10	0.01		0.93	0.39	
Uniform Delay, d1	35.5	11.7		12.2	23.6		33.5	32.7		43.1	36.4	
Progression Factor	0.82	0.56		0.86	0.73		1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.6	0.3		0.0	0.8		0.3	0.0		28.8	0.6	
Delay (s)	47.6	6.9		10.4	18.0		33.7	32.7		71.9	37.0	
Level of Service	D	A		B	B		C	C		E	D	
Approach Delay (s)		13.1			18.0			33.3			55.7	
Approach LOS		B			B			C			E	

Intersection Summary					
HCM Average Control Delay	23.2	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.91				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	86.6%	ICU Level of Service	E		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1852	0	1770	1831	0	0	1713	0	1770	1587	0
Flt Permitted	0.063			0.068				0.970		0.950		
Satd. Flow (perm)	117	1852	0	127	1831	0	0	1713	0	1770	1587	0
Satd. Flow (RTOR)		3			7			22			236	
Volume (vph)	121	1122	33	24	1263	139	50	0	32	365	3	383
Lane Group Flow (vph)	132	1229	0	38	1466	0	0	111	0	420	473	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Total Split (s)	12.0	75.0	0.0	63.0	63.0	0.0	20.0	20.0	0.0	25.0	25.0	0.0
Act Effct Green (s)	71.0	71.0		59.0	59.0			11.4		25.6	25.6	
Actuated g/C Ratio	0.59	0.59		0.49	0.49			0.10		0.21	0.21	
v/c Ratio	0.74	1.12		0.61	1.62			0.61		1.11	0.90	
Control Delay	52.9	85.0		35.0	306.2			55.3		123.6	45.1	
Queue Delay	0.0	0.0		0.0	9.8			0.0		0.0	0.0	
Total Delay	52.9	85.0		35.0	316.0			55.3		123.6	45.1	
LOS	D	F		D	F			E		F	D	
Approach Delay		81.9			308.9			55.3			82.0	
Approach LOS		F			F			E			F	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 34 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.62			
Intersection Signal Delay: 169.4		Intersection LOS: F	
Intersection Capacity Utilization 123.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98			0.95		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770	1831			1713		1770	1587	
Flt Permitted	0.06	1.00		0.07	1.00			0.97		0.95	1.00	
Satd. Flow (perm)	118	1852		126	1831			1713		1770	1587	
Volume (vph)	121	1122	33	24	1263	139	50	0	32	365	3	383
Peak-hour factor, PHF	0.92	0.95	0.69	0.64	0.97	0.85	0.73	0.92	0.75	0.87	0.50	0.82
Adj. Flow (vph)	132	1181	48	38	1302	164	68	0	43	420	6	467
RTOR Reduction (vph)	0	1	0	0	4	0	0	20	0	0	186	0
Lane Group Flow (vph)	132	1228	0	38	1462	0	0	91	0	420	287	0
Turn Type	pm+pt			Perm			Split			Split		
Protected Phases	1	6			2		4	4		8	8	
Permitted Phases	6			2								
Actuated Green, G (s)	71.0	71.0		59.0	59.0			11.4		25.6	25.6	
Effective Green, g (s)	71.0	71.0		59.0	59.0			11.4		25.6	25.6	
Actuated g/C Ratio	0.59	0.59		0.49	0.49			0.10		0.21	0.21	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	180	1096		62	900			163		378	339	
v/s Ratio Prot	0.05	c0.66			c0.80			c0.05		c0.24	0.18	
v/s Ratio Perm	0.38			0.30								
v/c Ratio	0.73	1.12		0.61	1.62			0.56		1.11	0.85	
Uniform Delay, d1	51.5	24.5		22.2	30.5			51.9		47.2	45.3	
Progression Factor	0.80	0.71		1.06	1.03			1.00		1.00	1.00	
Incremental Delay, d2	12.4	65.0		4.0	281.7			4.1		79.8	17.5	
Delay (s)	53.6	82.5		27.5	313.0			56.0		127.0	62.8	
Level of Service	D	F		C	F			E		F	E	
Approach Delay (s)		79.7			305.8			56.0			93.0	
Approach LOS		E			F			E			F	

Intersection Summary					
HCM Average Control Delay	170.0	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.32				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	123.5%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1538	1325	281	28
Act Effct Green (s)	90.0	90.0	22.0	22.0
Actuated g/C Ratio	0.75	0.75	0.18	0.18
v/c Ratio	1.19	1.02	1.12	0.09
Control Delay	106.0	33.1	133.5	19.8
Queue Delay	57.4	290.5	234.0	0.2
Total Delay	163.4	323.6	367.4	20.0
LOS	F	F	F	B
Approach Delay	163.4	323.6	367.4	20.0
Approach LOS	F	F	F	B
Queue Length 50th (ft)	~1441	~941	~248	4
Queue Length 95th (ft)	m#1326	m266	67	30
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	1290	1300	252	312
Starvation Cap Reductn	126	513	0	0
Spillback Cap Reductn	22	22	82	98
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.32	1.68	1.65	0.13

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 46 (38%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 247.1		Intersection LOS: F	
Intersection Capacity Utilization 115.1%		ICU Level of Service H	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			1.00			0.98			0.89	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		1820			1858			1755			1648	
Flt Permitted		0.94			0.93			0.74			0.96	
Satd. Flow (perm)		1713			1733			1349			1603	
Volume (vph)	20	1201	225	22	1176	9	228	1	26	3	0	11
Peak-hour factor, PHF	0.54	0.96	0.90	0.71	0.92	0.58	0.95	0.25	0.71	0.50	0.92	0.50
Adj. Flow (vph)	37	1251	250	31	1278	16	240	4	37	6	0	22
RTOR Reduction (vph)	0	6	0	0	0	0	0	5	0	0	18	0
Lane Group Flow (vph)	0	1532	0	0	1325	0	0	276	0	0	10	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		90.0			90.0			22.0			22.0	
Effective Green, g (s)		90.0			90.0			22.0			22.0	
Actuated g/C Ratio		0.75			0.75			0.18			0.18	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1285			1300			247			294	
v/s Ratio Prot												
v/s Ratio Perm		c0.89			0.76			c0.20			0.01	
v/c Ratio		1.19			1.02			1.12			0.03	
Uniform Delay, d1		15.0			15.0			49.0			40.3	
Progression Factor		1.02			1.29			0.95			1.00	
Incremental Delay, d2		87.4			13.0			92.3			0.0	
Delay (s)		102.6			32.4			139.0			40.3	
Level of Service		F			C			F			D	
Approach Delay (s)		102.6			32.4			139.0			40.3	
Approach LOS		F			C			F			D	

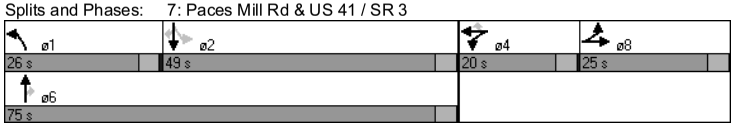
Intersection Summary					
HCM Average Control Delay	76.0	HCM Level of Service	E		
HCM Volume to Capacity ratio	1.18				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	115.1%	ICU Level of Service	H		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1681	1694	1583	0	1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950	0.957			0.979		0.950			0.089		
Satd. Flow (perm)	1681	1694	1583	0	1824	1583	1770	3539	1583	166	3539	1583
Satd. Flow (RTOR)			222			19			66			256
Volume (vph)	565	29	401	24	30	26	379	1613	58	55	958	408
Lane Group Flow (vph)	324	341	436	0	64	37	408	1698	73	73	1008	443
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Total Split (s)	25.0	25.0	0.0	20.0	20.0	20.0	26.0	75.0	75.0	49.0	49.0	49.0
Act Effct Green (s)	29.5	29.5	120.0		9.4	9.4	22.0	71.0	71.0	45.0	45.0	45.0
Actuated g/C Ratio	0.25	0.25	1.00		0.08	0.08	0.18	0.59	0.59	0.38	0.38	0.38
v/c Ratio	0.78	0.82	0.28		0.45	0.26	1.26	0.81	0.08	1.18	0.76	0.59
Control Delay	55.7	58.0	0.3		61.8	34.7	178.5	23.2	3.2	207.3	37.3	15.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.7	58.0	0.3		61.8	34.7	178.5	23.2	3.2	207.3	37.3	15.5
LOS	E	E	A		E	C	F	C	A	F	D	B
Approach Delay		34.5			51.9			51.6			39.1	
Approach LOS		C			D			D			D	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 108 (90%), Referenced to phase 2:SBTL and 6:NBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.26			
Intersection Signal Delay: 43.9		Intersection LOS: D	
Intersection Capacity Utilization 81.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: Paces Mill Rd & US 41 / SR 3



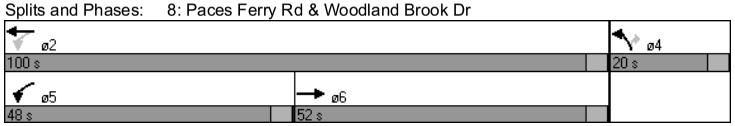
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1681	1694	1583		1824	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	0.96	1.00		0.98	1.00	0.95	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1681	1694	1583		1824	1583	1770	3539	1583	169	3539	1583
Volume (vph)	565	29	401	24	30	26	379	1613	58	55	958	408
Peak-hour factor, PHF	0.90	0.79	0.92	0.90	0.82	0.71	0.93	0.95	0.79	0.75	0.95	0.92
Adj. Flow (vph)	628	37	436	27	37	37	408	1698	73	73	1008	443
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	27	0	0	162
Lane Group Flow (vph)	324	341	436	0	64	19	408	1698	46	73	1008	281
Turn Type	Split		Free	Split		Perm	Prot		Perm	Perm		Perm
Protected Phases	8	8		4	4		1	6			2	
Permitted Phases			Free			4			6	2		2
Actuated Green, G (s)	29.5	29.5	120.0		8.3	8.3	22.0	70.2	70.2	44.2	44.2	44.2
Effective Green, g (s)	29.5	29.5	120.0		8.3	8.3	22.0	70.2	70.2	44.2	44.2	44.2
Actuated g/C Ratio	0.25	0.25	1.00		0.07	0.07	0.18	0.59	0.59	0.37	0.37	0.37
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	413	416	1583		126	109	325	2070	926	62	1304	583
v/s Ratio Prot	0.19	c0.20			c0.04		c0.23	0.48			0.28	
v/s Ratio Perm			0.28			0.01			0.03	c0.43		0.18
v/c Ratio	0.78	0.82	0.28		0.51	0.18	1.26	0.82	0.05	1.18	0.77	0.48
Uniform Delay, d1	42.3	42.7	0.0		53.9	52.6	49.0	19.9	10.6	37.9	33.5	29.1
Progression Factor	1.02	1.02	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	9.1	0.3		3.2	0.8	137.7	3.8	0.1	170.2	4.5	2.8
Delay (s)	50.3	52.7	0.3		57.1	53.4	186.7	23.7	10.7	208.1	38.0	32.0
Level of Service	D	D	A		E	D	F	C	B	F	D	C
Approach Delay (s)		31.2			55.7			53.7			44.4	
Approach LOS		C			E			D			D	

Intersection Summary					
HCM Average Control Delay	45.8	HCM Level of Service		D	
HCM Volume to Capacity ratio	1.04				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	81.0%	ICU Level of Service		D	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1799	0	1770	1863	1770	1583
Flt Permitted			0.155		0.950	
Satd. Flow (perm)	1799	0	289	1863	1770	1583
Satd. Flow (RTOR)	17					169
Volume (vph)	416	130	579	631	73	150
Lane Group Flow (vph)	577	0	623	701	78	169
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Total Split (s)	52.0	0.0	48.0	100.0	20.0	20.0
Act Effct Green (s)	56.7		96.0	96.0	16.0	16.0
Actuated g/C Ratio	0.47		0.80	0.80	0.13	0.13
v/c Ratio	0.67		0.93	0.47	0.33	0.47
Control Delay	27.5		45.7	5.0	51.5	11.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	27.5		45.7	5.0	51.5	11.6
LOS	C		D	A	D	B
Approach Delay	27.5			24.2	24.2	
Approach LOS	C			C	C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 71 (59%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 25.1		Intersection LOS: C	
Intersection Capacity Utilization 75.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	1800		1770	1863	1770	1583
Flt Permitted	1.00		0.23	1.00	0.95	1.00
Satd. Flow (perm)	1800		423	1863	1770	1583
Volume (vph)	416	130	579	631	73	150
Peak-hour factor, PHF	0.96	0.90	0.93	0.90	0.93	0.89
Adj. Flow (vph)	433	144	623	701	78	169
RTOR Reduction (vph)	9	0	0	0	0	146
Lane Group Flow (vph)	568	0	623	701	78	23
Turn Type			pm+pt			Perm
Protected Phases	6		5	2	4	
Permitted Phases			2			4
Actuated Green, G (s)	56.7		96.0	96.0	16.0	16.0
Effective Green, g (s)	56.7		96.0	96.0	16.0	16.0
Actuated g/C Ratio	0.47		0.80	0.80	0.13	0.13
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	851		735	1490	236	211
v/s Ratio Prot	0.32		c0.25	0.38	c0.04	
v/s Ratio Perm			c0.43			0.01
v/c Ratio	0.67		0.85	0.47	0.33	0.11
Uniform Delay, d1	24.4		20.6	3.8	47.1	45.7
Progression Factor	0.88		1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0		9.0	1.1	3.7	1.0
Delay (s)	25.6		29.6	4.9	50.9	46.7
Level of Service	C		C	A	D	D
Approach Delay (s)	25.6			16.5	48.0	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBT	NBT	SBT
Lane Group Flow (vph)	830	405	865	721	41
Act Effct Green (s)	73.0	73.0	73.0	39.0	39.0
Actuated g/C Ratio	0.61	0.61	0.61	0.32	0.32
v/c Ratio	0.75	0.36	1.94	1.62	0.07
Control Delay	17.1	2.6	448.0	320.3	25.8
Queue Delay	36.2	0.7	0.0	109.7	0.0
Total Delay	53.4	3.3	448.0	430.0	25.9
LOS	D	A	F	F	C
Approach Delay	37.0		448.0	430.0	25.9
Approach LOS	D		F	F	C
Queue Length 50th (ft)	293	27	~1063	~809	19
Queue Length 95th (ft)	m245	m7	m#1065	#417	20
Internal Link Dist (ft)	399		3443	528	208
Turn Bay Length (ft)					
Base Capacity (vph)	1110	1122	445	444	579
Starvation Cap Reductn	330	396	0	0	0
Spillback Cap Reductn	0	0	0	58	76
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.06	0.56	1.94	1.87	0.08

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 36 (30%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.94
Intersection Signal Delay: 260.0 Intersection LOS: F
Intersection Capacity Utilization 136.2% ICU Level of Service H
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		1.00			0.99			0.98	
Flt Protected		1.00	1.00		0.99			0.96			0.99	
Satd. Flow (prot)		1861	1583		1844			1758			1821	
Flt Permitted		0.98	1.00		0.39			0.74			0.97	
Satd. Flow (perm)		1824	1583		731			1356			1772	
Volume (vph)	9	757	385	142	660	4	576	5	68	4	13	4
Peak-hour factor, PHF	0.58	0.93	0.95	0.90	0.94	0.75	0.91	0.50	0.87	0.75	0.42	0.75
Adj. Flow (vph)	16	814	405	158	702	5	633	10	78	5	31	5
RTOR Reduction (vph)	0	0	159	0	0	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	830	246	0	865	0	0	718	0	0	38	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		73.0	73.0		73.0			39.0			39.0	
Effective Green, g (s)		73.0	73.0		73.0			39.0			39.0	
Actuated g/C Ratio		0.61	0.61		0.61			0.32			0.32	
Clearance Time (s)		4.0	4.0		4.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1110	963		445			441			576	
v/s Ratio Prot												
v/s Ratio Perm		0.46	0.16		c1.18			c0.53			0.02	
v/c Ratio		0.75	0.26		1.94			1.63			0.07	
Uniform Delay, d1		16.9	10.9		23.5			40.5			27.9	
Progression Factor		0.95	2.56		0.75			1.00			1.00	
Incremental Delay, d2		0.4	0.1		428.3			292.5			0.0	
Delay (s)		16.4	27.9		446.0			333.0			28.0	
Level of Service		B	C		F			F			C	
Approach Delay (s)		20.2			446.0			333.0			28.0	
Approach LOS		C			F			F			C	

Intersection Summary

HCM Average Control Delay	227.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	136.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	227	128	85
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	19.2%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	86	74	3	102	59	3
Peak Hour Factor	0.65	0.78	0.25	0.88	0.75	0.50
Hourly flow rate (vph)	132	95	12	116	79	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			227		320	180
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			227		320	180
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		88	99
cM capacity (veh/h)			1341		668	863

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	227	128	85
Volume Left	0	12	79
Volume Right	95	0	6
cSH	1700	1341	679
Volume to Capacity	0.13	0.01	0.12
Queue Length 95th (ft)	0	1	11
Control Delay (s)	0.0	0.8	11.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	11.1
Approach LOS			B

Intersection Summary				
Average Delay		2.4		
Intersection Capacity Utilization		19.2%	ICU Level of Service	A
Analysis Period (min)		15		

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	37	89	715	180	58	1322	1819
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	0	67	586	0	135	45	1051	144	13	1747	5
Peak Hour Factor	0.46	0.92	0.75	0.82	0.92	0.75	0.77	0.93	0.75	0.50	0.98	0.50
Hourly flow rate (vph)	37	0	89	715	0	180	58	1130	192	26	1783	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	2522	3279	896	2286	3188	661	1793			1322		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2600	3472	896	2330	3367	459	1793			1220		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	68	0	100	62	83			95		
cM capacity (veh/h)	5	4	283	10	5	477	341			493		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	37	89	895	58	753	569	917	901
Volume Left	37	0	715	58	0	0	26	0
Volume Right	0	89	180	0	0	192	0	10
cSH	5	283	12	341	1700	1700	493	1700
Volume to Capacity	6.73	0.32	73.35	0.17	0.44	0.33	0.05	0.53
Queue Length 95th (ft)	Err	33	Err	15	0	0	4	0
Control Delay (s)	Err	23.5	Err	17.7	0.0	0.0	1.7	0.0
Lane LOS	F	C	F	C			A	
Approach Delay (s)	2942.6		9999.0	0.8			0.9	
Approach LOS	F		F					

Intersection Summary					
Average Delay	2208.4				
Intersection Capacity Utilization	103.4%	ICU Level of Service		G	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	177	278	125	86
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	124	34	2	250	4	109	0	6	9	0	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	135	37	2	272	4	118	0	7	10	0	76
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	276			172			518	445	153	449	461	274
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276			172			518	445	153	449	461	274
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			72	100	99	98	100	90
cM capacity (veh/h)	1287			1405			419	505	893	514	495	765

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	177	278	125	86
Volume Left	5	2	118	10
Volume Right	37	4	7	76
cSH	1287	1405	431	725
Volume to Capacity	0.00	0.00	0.29	0.12
Queue Length 95th (ft)	0	0	30	10
Control Delay (s)	0.3	0.1	16.7	10.6
Lane LOS	A	A	C	B
Approach Delay (s)	0.3	0.1	16.7	10.6
Approach LOS			C	B

Intersection Summary					
Average Delay	4.6				
Intersection Capacity Utilization	34.0%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	163	132	132	67
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	16	100	34	4	113	5	109	0	13	5	0	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	109	37	4	123	5	118	0	14	5	0	62
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	128			146			358	299	127	310	315	126
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	128			146			358	299	127	310	315	126
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			78	100	98	99	100	93
cM capacity (veh/h)	1458			1436			551	604	923	625	592	925

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	163	133	133	67
Volume Left	17	4	118	5
Volume Right	37	5	14	62
cSH	1458	1436	576	890
Volume to Capacity	0.01	0.00	0.23	0.08
Queue Length 95th (ft)	1	0	22	6
Control Delay (s)	0.9	0.3	13.1	9.4
Lane LOS	A	A	B	A
Approach Delay (s)	0.9	0.3	13.1	9.4
Approach LOS			B	A

Intersection Summary					
Average Delay		5.1			
Intersection Capacity Utilization	34.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Future 2014 PM Improved

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	549	728	793	631	1271	806	557	372	247	1123	1234
Act Effct Green (s)	15.0	23.0	49.0	20.0	28.0	26.0	40.1	64.1	20.9	35.0	50.0
Actuated g/C Ratio	0.12	0.19	0.41	0.17	0.23	0.22	0.33	0.53	0.17	0.29	0.42
v/c Ratio	0.88	1.07	0.69	1.10	1.07	1.08	0.47	0.41	0.80	1.09	1.06
Control Delay	47.7	97.8	13.8	98.9	77.4	102.3	34.1	12.4	66.4	95.6	68.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	97.8	13.8	98.9	77.4	102.3	34.1	12.4	66.4	95.6	68.0
LOS	D	F	B	F	E	F	C	B	E	F	E
Approach Delay		52.3			84.5		61.1			79.7	
Approach LOS		D			F		E			E	
Queue Length 50th (ft)	141	~336	131	~279	~395	~360	180	102	184	~514	~430
Queue Length 95th (ft)	#211	#465	182	#396	#489	#485	242	190	263	#650	#525
Internal Link Dist (ft)		176			1091		827			224	
Turn Bay Length (ft)			250	120		300		150	150		165
Base Capacity (vph)	624	678	1144	572	1189	744	1182	908	384	1032	1166
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	1.07	0.69	1.10	1.07	1.08	0.47	0.41	0.64	1.09	1.06

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 70.1 Intersection LOS: E
Intersection Capacity Utilization 99.4% ICU Level of Service F
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.94	0.95	0.88	0.97	0.91		0.97	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	4990	3539	2787	3433	4925		3433	3539	1583	1770	3539	2787
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	4990	3539	2787	3433	4925		3433	3539	1583	1770	3539	2787
Volume (vph)	511	684	753	574	954	251	725	490	342	220	1089	1135
Peak-hour factor, PHF	0.93	0.94	0.95	0.91	0.95	0.94	0.90	0.88	0.92	0.89	0.97	0.92
Adj. Flow (vph)	549	728	793	631	1004	267	806	557	372	247	1123	1234
RTOR Reduction (vph)	0	0	6	0	40	0	0	0	67	0	0	5
Lane Group Flow (vph)	549	728	787	631	1231	0	806	557	305	247	1123	1229
Turn Type	Prot		pm+ov	Prot			Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2		7	4	5	3	8	1
Permitted Phases			6						4			8
Actuated Green, G (s)	15.0	23.0	49.0	20.0	28.0		26.0	40.1	60.1	20.9	35.0	50.0
Effective Green, g (s)	15.0	23.0	49.0	20.0	28.0		26.0	40.1	60.1	20.9	35.0	50.0
Actuated g/C Ratio	0.12	0.19	0.41	0.17	0.23		0.22	0.33	0.50	0.17	0.29	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	624	678	1138	572	1149		744	1183	846	308	1032	1161
v/s Ratio Prot	0.11	0.21	0.15	c0.18	c0.25		c0.23	0.16	0.06	0.14	c0.32	0.13
v/s Ratio Perm			0.13						0.13			0.31
v/c Ratio	0.88	1.07	0.69	1.10	1.07		1.08	0.47	0.36	0.80	1.09	1.06
Uniform Delay, d1	51.6	48.5	29.3	50.0	46.0		47.0	31.6	18.2	47.6	42.5	35.0
Progression Factor	0.62	0.94	0.70	0.71	0.78		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.2	54.3	1.6	64.1	44.5		57.9	0.3	0.3	13.9	55.2	43.5
Delay (s)	44.2	99.7	22.2	99.4	80.5		104.9	31.9	18.5	61.5	97.7	78.5
Level of Service	D	F	C	F	F		F	C	B	E	F	E
Approach Delay (s)		55.3			86.8			62.9			85.1	
Approach LOS		E			F			E			F	

Intersection Summary

HCM Average Control Delay	73.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1770	1852	0	1770	3479	0	0	1713	0	1770	1587	0
Flt Permitted	0.076			0.063				0.304		0.684		
Satd. Flow (perm)	142	1852	0	117	3479	0	0	537	0	1274	1587	0
Satd. Flow (RTOR)		3			17			27			157	
Volume (vph)	121	1122	33	24	1263	139	50	0	32	365	3	383
Lane Group Flow (vph)	132	1229	0	38	1466	0	0	111	0	420	473	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Total Split (s)	12.0	79.0	0.0	67.0	67.0	0.0	41.0	41.0	0.0	41.0	41.0	0.0
Act Effct Green (s)	75.0	75.0		63.0	63.0			37.0		37.0	37.0	
Actuated g/C Ratio	0.62	0.62		0.52	0.52			0.31		0.31	0.31	
v/c Ratio	0.67	1.06		0.62	0.80			0.60		1.07	0.79	
Control Delay	39.7	58.8		49.2	16.9			42.1		105.2	35.9	
Queue Delay	0.0	1.1		0.0	0.2			0.0		0.0	0.0	
Total Delay	39.7	59.9		49.2	17.1			42.1		105.2	35.9	
LOS	D	E		D	B			D		F	D	
Approach Delay		57.9			17.9			42.1			68.5	
Approach LOS		E			B			D			E	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 29 (24%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 44.3		Intersection LOS: D	
Intersection Capacity Utilization 106.3%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 5: Paces Ferry Rd & Overlook Pkwy

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	0.95			1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98			0.95		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00			0.97		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770	3480			1713		1770	1587	
Flt Permitted	0.08	1.00		0.06	1.00			0.30		0.68	1.00	
Satd. Flow (perm)	141	1852		118	3480			538		1274	1587	
Volume (vph)	121	1122	33	24	1263	139	50	0	32	365	3	383
Peak-hour factor, PHF	0.92	0.95	0.69	0.64	0.97	0.85	0.73	0.92	0.75	0.87	0.50	0.82
Adj. Flow (vph)	132	1181	48	38	1302	164	68	0	43	420	6	467
RTOR Reduction (vph)	0	1	0	0	8	0	0	19	0	0	109	0
Lane Group Flow (vph)	132	1228	0	38	1458	0	0	92	0	420	364	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	1	6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	75.0	75.0		63.0	63.0			37.0		37.0	37.0	
Effective Green, g (s)	75.0	75.0		63.0	63.0			37.0		37.0	37.0	
Actuated g/C Ratio	0.62	0.62		0.52	0.52			0.31		0.31	0.31	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	197	1158		62	1827			166		393	489	
v/s Ratio Prot	0.04	c0.66			0.42						0.23	
v/s Ratio Perm	0.37			0.32				0.17		c0.33		
v/c Ratio	0.67	1.06		0.61	0.80			0.56		1.07	0.75	
Uniform Delay, d1	39.8	22.5		20.0	23.3			34.6		41.5	37.3	
Progression Factor	0.72	0.62		0.58	0.60			1.00		1.00	1.00	
Incremental Delay, d2	7.4	42.2		28.8	2.8			4.0		64.9	6.1	
Delay (s)	36.1	56.2		40.4	16.8			38.6		106.4	43.4	
Level of Service	D	E		D	B			D		F	D	
Approach Delay (s)		54.3			17.4			38.6			73.0	
Approach LOS		D			B			D			E	

Intersection Summary					
HCM Average Control Delay	43.8	HCM Level of Service		D	
HCM Volume to Capacity ratio	1.06				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	106.3%	ICU Level of Service		G	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	1538	1325	281	28
Act Effct Green (s)	84.6	84.6	27.4	27.4
Actuated g/C Ratio	0.70	0.70	0.23	0.23
v/c Ratio	0.73	0.64	0.90	0.07
Control Delay	6.1	10.8	71.4	14.9
Queue Delay	0.0	0.8	0.0	0.0
Total Delay	6.1	11.6	71.4	14.9
LOS	A	B	E	B
Approach Delay	6.1	11.6	71.4	14.9
Approach LOS	A	B	E	B
Queue Length 50th (ft)	153	286	209	4
Queue Length 95th (ft)	m187	m341	56	25
Internal Link Dist (ft)	689	399	1955	243
Turn Bay Length (ft)				
Base Capacity (vph)	2110	2070	420	499
Starvation Cap Reductn	1	419	0	0
Spillback Cap Reductn	2	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.80	0.67	0.06

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 28 (23%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 14.3		Intersection LOS: B	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frt		0.98			1.00			0.98			0.89	
Flt Protected		1.00			1.00			0.96			0.99	
Satd. Flow (prot)		3449			3529			1755			1648	
Flt Permitted		0.87			0.86			0.74			0.94	
Satd. Flow (perm)		3006			3051			1349			1569	
Volume (vph)	20	1201	225	22	1176	9	228	1	26	3	0	11
Peak-hour factor, PHF	0.54	0.96	0.90	0.71	0.92	0.58	0.95	0.25	0.71	0.50	0.92	0.50
Adj. Flow (vph)	37	1251	250	31	1278	16	240	4	37	6	0	22
RTOR Reduction (vph)	0	11	0	0	1	0	0	5	0	0	17	0
Lane Group Flow (vph)	0	1527	0	0	1324	0	0	276	0	0	11	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		84.6			84.6			27.4			27.4	
Effective Green, g (s)		84.6			84.6			27.4			27.4	
Actuated g/C Ratio		0.70			0.70			0.23			0.23	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		2119			2151			308			358	
v/s Ratio Prot												
v/s Ratio Perm		c0.51			0.43			c0.20			0.01	
v/c Ratio		0.72			0.62			0.89			0.03	
Uniform Delay, d1		10.6			9.2			44.9			36.0	
Progression Factor		0.36			0.89			0.96			1.00	
Incremental Delay, d2		1.6			0.8			26.1			0.0	
Delay (s)		5.4			9.0			69.4			36.0	
Level of Service		A			A			E			D	
Approach Delay (s)		5.4			9.0			69.4			36.0	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted			0.236		0.950	
Satd. Flow (perm)	1863	1583	440	1863	1770	1583
Satd. Flow (RTOR)		107				169
Volume (vph)	416	130	579	631	73	150
Lane Group Flow (vph)	433	144	623	701	78	169
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases		6	2			4
Total Split (s)	46.0	46.0	53.0	99.0	21.0	53.0
Act Effct Green (s)	60.8	60.8	95.0	95.0	17.0	51.2
Actuated g/C Ratio	0.51	0.51	0.79	0.79	0.14	0.43
v/c Ratio	0.46	0.17	0.91	0.48	0.31	0.22
Control Delay	24.3	7.4	33.7	5.4	50.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	7.4	33.7	5.4	50.1	2.7
LOS	C	A	C	A	D	A
Approach Delay	20.1			18.7	17.6	
Approach LOS	C			B	B	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 65 (54%), Referenced to phase 2:WBTL and 6:EBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 19.0		Intersection LOS: B	
Intersection Capacity Utilization 68.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 8: Paces Ferry Rd & Woodland Brook Dr

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.36	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	676	1863	1770	1583
Volume (vph)	416	130	579	631	73	150
Peak-hour factor, PHF	0.96	0.90	0.93	0.90	0.93	0.89
Adj. Flow (vph)	433	144	623	701	78	169
RTOR Reduction (vph)	0	53	0	0	0	103
Lane Group Flow (vph)	433	91	623	701	78	66
Turn Type		Perm	pm+pt			pm+ov
Protected Phases	6		5	2	4	5
Permitted Phases		6	2			4
Actuated Green, G (s)	60.8	60.8	95.0	95.0	17.0	47.2
Effective Green, g (s)	60.8	60.8	95.0	95.0	17.0	47.2
Actuated g/C Ratio	0.51	0.51	0.79	0.79	0.14	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	944	802	810	1475	251	675
v/s Ratio Prot	0.23		c0.19	0.38	c0.04	0.02
v/s Ratio Perm		0.06	c0.42			0.02
v/c Ratio	0.46	0.11	0.77	0.48	0.31	0.10
Uniform Delay, d1	19.0	15.5	8.3	4.2	46.2	23.0
Progression Factor	1.02	0.99	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.3	4.4	1.1	3.2	0.1
Delay (s)	21.0	15.6	12.7	5.3	49.4	23.0
Level of Service	C	B	B	A	D	C
Approach Delay (s)	19.7			8.8	31.4	
Approach LOS	B			A	C	

Intersection Summary					
HCM Average Control Delay	14.3	HCM Level of Service	B		
HCM Volume to Capacity ratio	0.69				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0		
Intersection Capacity Utilization	68.0%	ICU Level of Service	C		
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	830	405	158	707	372	349	41
Act Effct Green (s)	78.2	109.8	78.2	78.2	26.0	26.0	7.8
Actuated g/C Ratio	0.65	0.92	0.65	0.65	0.22	0.22	0.06
v/c Ratio	0.70	0.27	1.02	0.58	1.02	0.95	0.34
Control Delay	5.3	0.4	80.1	11.8	99.5	82.2	55.1
Queue Delay	0.4	0.5	0.0	0.1	0.0	0.0	0.0
Total Delay	5.8	0.9	80.1	11.8	99.5	82.2	55.1
LOS	A	A	F	B	F	F	E
Approach Delay	4.2			24.3		91.1	55.1
Approach LOS	A			C		F	E
Queue Length 50th (ft)	236	6	~140	199	~322	275	27
Queue Length 95th (ft)	m57	m0	m#197	m235	#524	188	27
Internal Link Dist (ft)	399			3443		528	208
Turn Bay Length (ft)			150		150		
Base Capacity (vph)	1193	1483	155	1213	364	366	247
Starvation Cap Reductn	91	656	0	0	0	0	0
Spillback Cap Reductn	0	0	0	45	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.49	1.02	0.61	1.02	0.95	0.17

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 44 (37%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.02		
Intersection Signal Delay: 32.9	Intersection LOS: C	
Intersection Capacity Utilization 110.1%	ICU Level of Service H	
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		0.95	0.95			1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.97			0.98	
Flt Protected		1.00	1.00	0.95	1.00		0.95	0.96			0.99	
Satd. Flow (prot)		1861	1583	1770	1861		1681	1649			1821	
Flt Permitted		0.98	1.00	0.20	1.00		0.95	0.96			0.99	
Satd. Flow (perm)		1832	1583	373	1861		1681	1649			1821	
Volume (vph)	9	757	385	142	660	4	576	5	68	4	13	4
Peak-hour factor, PHF	0.58	0.93	0.95	0.90	0.94	0.75	0.91	0.50	0.87	0.75	0.42	0.75
Adj. Flow (vph)	16	814	405	158	702	5	633	10	78	5	31	5
RTOR Reduction (vph)	0	0	59	0	0	0	0	9	0	0	5	0
Lane Group Flow (vph)	0	830	346	158	707	0	372	340	0	0	36	0
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		6	4		2		4	4		8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)		76.6	102.6	76.6	76.6		26.0	26.0			5.4	
Effective Green, g (s)		76.6	102.6	76.6	76.6		26.0	26.0			5.4	
Actuated g/C Ratio		0.64	0.86	0.64	0.64		0.22	0.22			0.05	
Clearance Time (s)		4.0	4.0	4.0	4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1169	1406	238	1188		364	357			82	
v/s Ratio Prot			0.05		0.38		c0.22	0.21			c0.02	
v/s Ratio Perm		c0.45	0.17	0.42								
v/c Ratio		0.71	0.25	0.66	0.60		1.02	0.95			0.44	
Uniform Delay, d1		14.4	1.6	13.6	12.7		47.0	46.4			55.8	
Progression Factor		0.20	0.58	0.98	0.81		1.00	1.00			1.00	
Incremental Delay, d2		2.5	0.1	6.2	1.0		52.9	35.4			3.8	
Delay (s)		5.3	1.0	19.6	11.3		99.9	81.8			59.6	
Level of Service		A	A	B	B		F	F			E	
Approach Delay (s)		3.9			12.8			91.1			59.6	
Approach LOS		A			B			F			E	

Intersection Summary					
HCM Average Control Delay	29.4	HCM Level of Service	C		
HCM Volume to Capacity ratio	0.77				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0		
Intersection Capacity Utilization	110.1%	ICU Level of Service	H		
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	37	89	715	180	58	1322	1819
Sign Control	Stop		Stop			Free	Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	103.4%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	0	67	586	0	135	45	1051	144	13	1747	5
Peak Hour Factor	0.46	0.92	0.75	0.82	0.92	0.75	0.77	0.93	0.75	0.50	0.98	0.50
Hourly flow rate (vph)	37	0	89	715	0	180	58	1130	192	26	1783	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								446				
pX, platoon unblocked	0.88	0.88		0.88	0.88	0.88				0.88		
vC, conflicting volume	2522	3279	896	2286	3188	661	1793			1322		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2591	3449	896	2324	3346	483	1793			1232		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	68	0	100	62	83			95		
cM capacity (veh/h)	6	5	283	10	5	468	341			495		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	37	89	895	58	753	569	917	901
Volume Left	37	0	715	58	0	0	26	0
Volume Right	0	89	180	0	0	192	0	10
cSH	6	283	12	341	1700	1700	495	1700
Volume to Capacity	6.59	0.32	71.58	0.17	0.44	0.33	0.05	0.53
Queue Length 95th (ft)	Err	33	Err	15	0	0	4	0
Control Delay (s)	Err	23.5	Err	17.7	0.0	0.0	1.7	0.0
Lane LOS	F	C	F	C			A	
Approach Delay (s)	2942.6		9999.0	0.8			0.9	
Approach LOS	F		F					

Intersection Summary					
Average Delay	2208.4				
Intersection Capacity Utilization	103.4%	ICU Level of Service		G	
Analysis Period (min)	15				

Future Site Access Analysis

Future 2014 AM Site Access Analysis

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	251	1652	6	830	329	26	10	148	103
Act Effct Green (s)	94.4	92.5	89.0	83.5	83.5	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.79	0.77	0.74	0.70	0.70	0.15	0.15	0.15	0.15
v/c Ratio	0.53	0.61	0.04	0.34	0.27	0.15	0.03	0.72	0.21
Control Delay	5.0	3.5	1.7	2.1	0.5	43.9	0.2	67.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	3.5	1.7	2.1	0.5	43.9	0.2	67.8	0.9
LOS	A	A	A	A	A	D	A	E	A
Approach Delay		3.7		1.7			31.7		40.3
Approach LOS		A		A			C		D
Queue Length 50th (ft)	23	96	0	24	0	18	0	111	0
Queue Length 95th (ft)	m34	m192	m1	57	0	30	0	104	0
Internal Link Dist (ft)		1091		831			476		222
Turn Bay Length (ft)	90		65		150	50		55	
Base Capacity (vph)	636	2719	243	2464	1202	249	470	291	578
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.61	0.02	0.34	0.27	0.10	0.02	0.51	0.18

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3524		1770	3539	1583	1770	1583		1770	1583	
Flt Permitted	0.30	1.00		0.10	1.00	1.00	0.60	1.00		0.75	1.00	
Satd. Flow (perm)	566	3524		192	3539	1583	1124	1583		1399	1583	
Volume (vph)	203	1509	34	3	772	253	17	0	5	86	0	69
Peak-hour factor, PHF	0.81	0.94	0.72	0.50	0.93	0.77	0.65	0.92	0.50	0.58	0.92	0.67
Adj. Flow (vph)	251	1605	47	6	830	329	26	0	10	148	0	103
RTOR Reduction (vph)	0	1	0	0	0	109	0	9	0	0	88	0
Lane Group Flow (vph)	251	1651	0	6	830	220	26	1	0	148	15	0
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	94.4	89.3		81.4	80.3	80.3	17.6	17.6		17.6	17.6	
Effective Green, g (s)	94.4	89.3		81.4	80.3	80.3	17.6	17.6		17.6	17.6	
Actuated g/C Ratio	0.79	0.74		0.68	0.67	0.67	0.15	0.15		0.15	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	547	2622		145	2368	1059	165	232		205	232	
v/s Ratio Prot	c0.04	c0.47		0.00	0.23			0.00			0.01	
v/s Ratio Perm	0.32			0.03		0.14	0.02			c0.11		
v/c Ratio	0.46	0.63		0.04	0.35	0.21	0.16	0.01		0.72	0.07	
Uniform Delay, d1	8.1	7.4		17.1	8.6	7.6	44.7	43.7		48.9	44.1	
Progression Factor	0.55	0.45		0.28	0.21	0.03	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.1		0.1	0.4	0.4	0.4	0.0		11.8	0.1	
Delay (s)	4.5	3.5		4.8	2.2	0.7	45.2	43.7		60.7	44.2	
Level of Service	A	A		A	A	A	D	D		E	D	
Approach Delay (s)		3.6			1.8			44.8			53.9	
Approach LOS		A			A			D			D	

Intersection Summary					
HCM Average Control Delay	7.2	HCM Level of Service		A	
HCM Volume to Capacity ratio	0.63				
Actuated Cycle Length (s)	120.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	67.6%	ICU Level of Service		C	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	739	144	39	13
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	84	477	120	7	114	11	34	0	2	5	0	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	518	130	8	124	12	37	0	2	5	0	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			649			919	917	584	914	977	130
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			649			919	917	584	914	977	130
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			84	100	100	98	100	99
cM capacity (veh/h)	1448			937			236	253	512	239	233	920

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	740	143	39	13
Volume Left	91	8	37	5
Volume Right	130	12	2	8
cSH	1448	937	244	421
Volume to Capacity	0.06	0.01	0.16	0.03
Queue Length 95th (ft)	5	1	14	2
Control Delay (s)	1.6	0.5	22.6	13.8
Lane LOS	A	A	C	B
Approach Delay (s)	1.6	0.5	22.6	13.8
Approach LOS			C	B

Intersection Summary					
Average Delay	2.5				
Intersection Capacity Utilization	58.1%	ICU Level of Service		B	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	523	116	41	16
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	99	262	120	14	88	5	34	0	4	4	0	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	108	285	130	15	96	5	37	0	4	4	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	101			415			706	697	350	698	759	98
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	101			415			706	697	350	698	759	98
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			99			89	100	99	99	100	99
cM capacity (veh/h)	1491			1144			324	334	693	330	308	958

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	523	116	41	16
Volume Left	108	15	37	4
Volume Right	130	5	4	12
cSH	1491	1144	343	635
Volume to Capacity	0.07	0.01	0.12	0.03
Queue Length 95th (ft)	6	1	10	2
Control Delay (s)	2.1	1.2	16.9	10.8
Lane LOS	A	A	C	B
Approach Delay (s)	2.1	1.2	16.9	10.8
Approach LOS			C	B

Intersection Summary					
Average Delay	3.1				
Intersection Capacity Utilization	45.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	292	116	19
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	26.7%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	220	49	14	93	14	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	239	53	15	101	15	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			292		397	266
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			292		397	266
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	99
cM capacity (veh/h)			1269		601	773

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	292	116	20
Volume Left	0	15	15
Volume Right	53	0	4
cSH	1700	1269	632
Volume to Capacity	0.17	0.01	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	1.1	10.9
Lane LOS		A	B
Approach Delay (s)	0.0	1.1	10.9
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	26.7%	ICU Level of Service	A
Analysis Period (min)	15		

Future 2014 PM Site Access Analysis

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	177	977	10	1482	270	16	11	340	293
Act Effct Green (s)	76.9	76.9	65.0	65.0	65.0	32.7	32.7	32.7	32.7
Actuated g/C Ratio	0.64	0.64	0.54	0.54	0.54	0.27	0.27	0.27	0.27
v/c Ratio	0.75	0.43	0.03	0.77	0.29	0.08	0.02	0.89	0.49
Control Delay	22.7	8.5	7.2	11.3	2.8	31.2	0.0	67.4	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	8.5	7.2	11.3	2.8	31.2	0.0	67.4	11.6
LOS	C	A	A	B	A	C	A	E	B
Approach Delay		10.7		10.0			18.5		41.5
Approach LOS		B		A			B		D
Queue Length 50th (ft)	37	271	2	157	14	9	0	244	39
Queue Length 95th (ft)	m66	m306	m3	283	16	22	0	#378	114
Internal Link Dist (ft)		1091		831			476		222
Turn Bay Length (ft)	90		65		150	50		55	
Base Capacity (vph)	271	2268	368	1917	922	224	634	431	644
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.43	0.03	0.77	0.29	0.07	0.02	0.79	0.45

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 51 (43%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 80.7% ICU Level of Service D
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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539		1770	3539	1583	1770	1583		1770	1583	
Flt Permitted	0.06	1.00		0.29	1.00	1.00	0.35	1.00		0.75	1.00	
Satd. Flow (perm)	118	3539		544	3539	1583	653	1583		1398	1583	
Volume (vph)	143	938	0	5	1423	186	12	0	8	303	0	270
Peak-hour factor, PHF	0.81	0.96	0.92	0.50	0.96	0.69	0.75	0.92	0.75	0.89	0.92	0.92
Adj. Flow (vph)	177	977	0	10	1482	270	16	0	11	340	0	293
RTOR Reduction (vph)	0	0	0	0	0	65	0	8	0	0	164	0
Lane Group Flow (vph)	177	977	0	10	1482	205	16	3	0	340	129	0
Turn Type	pm+pt			pm+pt		Perm	Perm			Perm		
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	73.7	73.7		65.0	65.0	65.0	32.7	32.7		32.7	32.7	
Effective Green, g (s)	73.7	73.7		65.0	65.0	65.0	32.7	32.7		32.7	32.7	
Actuated g/C Ratio	0.61	0.61		0.54	0.54	0.54	0.27	0.27		0.27	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	214	2174		311	1917	857	178	431		381	431	
v/s Ratio Prot	c0.07	0.28		0.00	c0.42			0.00			0.08	
v/s Ratio Perm	c0.44			0.02		0.13	0.02			c0.24		
v/c Ratio	0.83	0.45		0.03	0.77	0.24	0.09	0.01		0.89	0.30	
Uniform Delay, d1	32.3	12.3		12.9	21.7	14.5	32.6	31.8		42.0	34.6	
Progression Factor	0.56	0.67		0.43	0.38	0.28	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.6	0.3		0.0	2.0	0.4	0.2	0.0		22.2	0.4	
Delay (s)	30.6	8.6		5.6	10.3	4.5	32.8	31.8		64.1	35.0	
Level of Service	C	A		A	B	A	C	C		E	C	
Approach Delay (s)		12.0			9.4			32.4			50.6	
Approach LOS		B			A			C			D	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.82			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	80.7%	ICU Level of Service	D	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	177	278	125	86
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	124	34	2	250	4	109	0	6	9	0	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	135	37	2	272	4	118	0	7	10	0	76
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	276			172			518	445	153	449	461	274
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276			172			518	445	153	449	461	274
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			72	100	99	98	100	90
cM capacity (veh/h)	1287			1405			419	505	893	514	495	765

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	177	278	125	86
Volume Left	5	2	118	10
Volume Right	37	4	7	76
cSH	1287	1405	431	725
Volume to Capacity	0.00	0.00	0.29	0.12
Queue Length 95th (ft)	0	0	30	10
Control Delay (s)	0.3	0.1	16.7	10.6
Lane LOS	A	A	C	B
Approach Delay (s)	0.3	0.1	16.7	10.6
Approach LOS			C	B

Intersection Summary					
Average Delay	4.6				
Intersection Capacity Utilization	34.0%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	163	132	132	67
Sign Control	Free	Free	Stop	Stop

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization	34.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	16	100	34	4	113	5	109	0	13	5	0	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	109	37	4	123	5	118	0	14	5	0	62
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	128			146			358	299	127	310	315	126
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	128			146			358	299	127	310	315	126
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			78	100	98	99	100	93
cM capacity (veh/h)	1458			1436			551	604	923	625	592	925

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	163	133	133	67
Volume Left	17	4	118	5
Volume Right	37	5	14	62
cSH	1458	1436	576	890
Volume to Capacity	0.01	0.00	0.23	0.08
Queue Length 95th (ft)	1	0	22	6
Control Delay (s)	0.9	0.3	13.1	9.4
Lane LOS	A	A	B	A
Approach Delay (s)	0.9	0.3	13.1	9.4
Approach LOS			B	A

Intersection Summary					
Average Delay		5.1			
Intersection Capacity Utilization	34.8%	ICU Level of Service		A	
Analysis Period (min)	15				

Lane Group	EBT	WBT	NBL
Lane Group Flow (vph)	129	89	62
Sign Control	Free	Free	Stop

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization	17.4%	ICU Level of Service A
Analysis Period (min)	15	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	105	14	4	78	44	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	114	15	4	85	48	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			129		215	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			129		215	122
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	98
cM capacity (veh/h)			1456		771	929

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	129	89	62
Volume Left	0	4	48
Volume Right	15	0	14
cSH	1700	1456	802
Volume to Capacity	0.08	0.00	0.08
Queue Length 95th (ft)	0	0	6
Control Delay (s)	0.0	0.4	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.4	9.9
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

Traffic Volume Worksheets

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / I-285 Southbound Ramps

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	724	0	1036	1760	0	1410	193	1603	295	622	0	917
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	953	0	1363	2316	0	1855	254	2109	388	819	0	1207
Trips - Residential & Office	0	0	0	0	140	0	0	140	0	70	0	70	40	20	0	60
Trips - Retail	0	0	0	0	7	0	0	7	0	5	0	5	4	3	0	7
Total New Trips	0	0	0	0	147	0	0	147	0	75	0	75	44	23	0	67
Future Traffic Volumes:	0	0	0	0	1100	0	1363	2463	0	1930	254	2184	432	842	0	1274

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	533	0	807	1340	0	1110	341	1451	644	826	0	1470
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	701	0	1062	1763	0	1461	449	1909	847	1087	0	1934
Trips - Residential & Office	0	0	0	0	38	0	0	38	0	19	0	19	127	64	0	191
Trips - Retail	0	0	0	0	12	0	0	12	0	9	0	9	12	9	0	21
Total New Trips	0	0	0	0	50	0	0	50	0	28	0	28	139	73	0	212
Future Traffic Volumes:	0	0	0	0	751	0	1062	1813	0	1489	449	1937	986	1160	0	2146

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / I-285 Northbound Ramps

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	421	0	595	1016	0	0	0	0	827	1348	0	2175	0	530	815	1345
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	554	0	783	1337	0	0	0	0	1088	1774	0	2862	0	697	1072	1770
Trips - Residential & Office	0	0	140	140	0	0	0	0	0	210	0	210	0	60	40	100
Trips - Retail	0	0	7	7	0	0	0	0	0	12	0	12	0	7	4	11
Total New Trips	0	0	147	147	0	0	0	0	0	222	0	222	0	67	44	111
Future Traffic Volumes:	554	0	930	1484	0	0	0	0	1088	1996	0	3084	0	764	1116	1881

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	212	0	419	631	0	0	0	0	630	984	0	1614	0	1180	729	1909
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	279	0	551	830	0	0	0	0	829	1295	0	2124	0	1553	959	2512
Trips - Residential & Office	0	0	38	38	0	0	0	0	0	57	0	57	0	191	127	318
Trips - Retail	0	0	12	12	0	0	0	0	0	21	0	21	0	21	12	33
Total New Trips	0	0	50	50	0	0	0	0	0	78	0	78	0	212	139	351
Future Traffic Volumes:	279	0	601	880	0	0	0	0	829	1373	0	2202	0	1765	1098	2863

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

Cumberland Parkway / Paces Ferry Road

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	683	901	458	2042	132	188	247	567	567	900	412	1879	115	412	115	642
Existing Diverted:	683	901	458	2042	132	188	255	575	622	845	412	1879	115	404	115	634
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	899	1186	603	2687	174	247	336	757	819	1112	542	2473	151	532	151	834
Trips - Residential & Office	0	42	28	70	0	12	60	72	210	140	0	350	8	40	0	48
Trips - Retail	0	0	8	8	8	0	0	8	0	19	0	19	5	11	5	21
Total New Trips	0	42	36	78	8	12	60	80	210	159	0	369	13	51	5	69
Future Traffic Volumes:	899	1228	639	2765	182	259	396	837	1029	1271	542	2842	164	583	156	903

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	551	364	244	1159	157	799	505	1461	332	479	572	1383	407	816	181	1404
Existing Diverted:	551	364	244	1159	157	799	718	1674	345	466	572	1383	407	603	181	1191
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	725	479	321	1525	207	1051	945	2203	454	613	753	1820	536	794	238	1567
Trips - Residential & Office	0	11	8	19	0	38	190	228	57	38	0	95	25	127	0	152
Trips - Retail	0	0	13	13	13	0	0	13	0	33	0	33	13	33	13	59
Total New Trips	0	11	21	32	13	38	190	241	57	71	0	128	38	160	13	211
Future Traffic Volumes:	725	490	342	1557	220	1089	1135	2444	511	684	753	1948	574	954	251	1778

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / Boulevard Hills Drive / Paces West Commercial Driveway (South Site Driveway)

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	13	0	4	17	7	0	8	15	55	1147	26	1228	2	587	34	623
Existing Diverted:	13	0	4	17	0	0	0	0	0	1147	26	1173	2	587	0	589
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	17	0	5	22	0	0	0	0	0	1509	34	1544	3	772	0	775
Trips - Residential & Office	0	0	0	0	60	0	48	108	168	0	0	168	0	0	210	210
Trips - Retail	0	0	0	0	26	0	21	47	35	0	0	35	0	0	43	43
Total New Trips	0	0	0	0	86	0	69	155	203	0	0	203	0	0	253	253
Future Traffic Volumes:	17	0	5	22	86	0	69	155	203	1509	34	1747	3	772	253	1028

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	9	0	6	15	57	0	213	270	13	742	0	755	4	1125	11	1140
Existing Diverted:	9	0	6	15	0	0	0	0	0	742	0	742	4	1125	0	1129
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	12	0	8	20	0	0	0	0	0	976	0	976	5	1480	0	1486
Trips - Residential & Office	0	0	0	0	192	0	152	344	46	0	0	46	0	0	58	58
Trips - Retail	0	0	0	0	72	0	59	131	59	0	0	59	0	0	71	71
Total New Trips	0	0	0	0	264	0	211	475	105	0	0	105	0	0	129	129
Pass-by Reduction	0	0	0	0	39	0	59	98	38	-38	0	0	0	-57	57	0
Future Traffic Volumes:	12	0	8	20	303	0	270	573	143	938	0	1081	5	1423	186	1615

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / Overlook Parkway / Commercial Driveway

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	6	0	17	23	152	1	106	259	190	1066	8	1264	2	441	123	566
Existing Diverted:	6	0	17	23	159	1	106	266	190	1059	8	1257	2	407	157	566
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	8	0	22	30	209	1	139	350	250	1394	11	1654	3	536	207	745
Trips - Residential & Office	0	0	0	0	0	0	0	0	0	60	0	60	0	210	0	210
Trips - Retail	0	0	0	0	0	0	0	0	0	26	0	26	0	43	0	43
Total New Trips	0	0	0	0	0	0	0	0	0	86	0	86	0	253	0	253
Future Traffic Volumes:	8	0	22	30	209	1	139	350	250	1480	11	1740	3	789	207	998

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	38	0	24	62	220	2	291	513	92	709	25	826	18	873	95	986
Existing Diverted:	38	0	24	62	277	2	291	570	92	652	25	769	18	862	106	986
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	50	0	32	82	365	3	383	750	121	858	33	1012	24	1134	139	1298
Trips - Residential & Office	0	0	0	0	0	0	0	0	0	192	0	192	0	58	0	58
Trips - Retail	0	0	0	0	0	0	0	0	0	72	0	72	0	71	0	71
Total New Trips	0	0	0	0	0	0	0	0	0	264	0	264	0	129	0	129
Future Traffic Volumes:	50	0	32	82	365	3	383	750	121	1122	33	1276	24	1263	139	1427

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / New Paces Ferry Road / Taz Anderson Realty Co. Driveway

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	45	1	22	68	1	0	1	2	4	1145	63	1212	12	492	2	506
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	59	1	29	89	1	0	1	3	5	1507	83	1595	16	647	3	666
Trips - Residential & Office	36	0	0	36	0	0	0	0	0	50	10	60	0	174	0	174
Trips - Retail	20	0	0	20	0	0	0	0	0	15	12	27	0	24	0	24
Total New Trips	56	0	0	56	0	0	0	0	0	65	22	87	0	198	0	198
Future Traffic Volumes:	115	1	29	145	1	0	1	3	5	1572	105	1682	16	845	3	864

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	141	1	20	162	2	0	8	10	15	762	119	896	17	828	7	852
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	186	1	26	213	3	0	11	13	20	1003	157	1179	22	1090	9	1121
Trips - Residential & Office	10	0	0	10	0	0	0	0	0	158	34	192	0	47	0	47
Trips - Retail	32	0	0	32	0	0	0	0	0	40	34	74	0	39	0	39
Total New Trips	42	0	0	42	0	0	0	0	0	198	68	266	0	86	0	86
Future Traffic Volumes:	228	1	26	255	3	0	11	13	20	1201	225	1445	22	1176	9	1207

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

US 41 (SR 3) / Paces Mill Road / River Parkway

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	203	503	19	725	16	1104	177	1297	359	8	684	1051	42	23	53	118
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	267	662	25	954	21	1453	233	1707	472	11	900	1383	55	30	70	155
Trips - Residential & Office	70	0	0	70	0	0	70	70	20	0	20	40	0	0	0	0
Trips - Retail	8	0	0	8	0	0	8	8	5	0	5	10	0	0	0	0
Total New Trips	78	0	0	78	0	0	78	78	25	0	25	50	0	0	0	0
Future Traffic Volumes:	345	662	25	1032	21	1453	311	1785	497	11	925	1433	55	30	70	155

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	264	1226	44	1534	42	728	286	1056	371	22	246	639	18	23	20	61
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	347	1613	58	2019	55	958	376	1390	488	29	324	841	24	30	26	80
Trips - Residential & Office	19	0	0	19	0	0	19	19	64	0	64	128	0	0	0	0
Trips - Retail	13	0	0	13	0	0	13	13	13	0	13	26	0	0	0	0
Total New Trips	32	0	0	32	0	0	32	32	77	0	77	154	0	0	0	0
Future Traffic Volumes:	379	1613	58	2051	55	958	408	1422	565	29	401	995	24	30	26	80

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / Woodland Brook Drive

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	72	0	608	680	0	0	0	0	0	500	51	551	124	253	0	377
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	95	0	800	895	0	0	0	0	0	658	67	725	163	333	0	496
Trips - Residential & Office	35	0	0	35	0	0	0	0	0	6	10	16	0	21	0	21
Trips - Retail	5	0	0	5	0	0	0	0	0	6	3	9	0	10	0	10
Total New Trips	40	0	0	40	0	0	0	0	0	12	13	25	0	31	0	31
Future Traffic Volumes:	135	0	800	935	0	0	0	0	0	670	80	750	163	364	0	527

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	41	0	114	155	0	0	0	0	0	289	68	357	440	462	0	902
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	54	0	150	204	0	0	0	0	0	380	89	470	579	608	0	1187
Trips - Residential & Office	10	0	0	10	0	0	0	0	0	19	32	51	0	6	0	6
Trips - Retail	9	0	0	9	0	0	0	0	0	17	9	26	0	17	0	17
Total New Trips	19	0	0	19	0	0	0	0	0	36	41	77	0	23	0	23
Future Traffic Volumes:	73	0	150	223	0	0	0	0	0	416	130	547	579	631	0	1210

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

Paces Ferry Road / Paces Mill Road / Mountain Street

A.M. Peak Hour

Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	198	8	88	294	3	3	5	11	7	771	373	1151	26	301	11	338
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	261	11	116	387	4	4	7	14	9	1015	491	1515	34	396	14	445
Trips - Residential & Office	34	0	0	34	0	0	0	0	0	40	10	50	0	140	0	140
Trips - Retail	8	0	0	8	0	0	0	0	0	10	5	15	0	16	0	16
Total New Trips	42	0	0	42	0	0	0	0	0	50	15	65	0	156	0	156
Future Traffic Volumes:	303	11	116	429	4	4	7	14	9	1065	506	1580	34	552	14	601

P.M. Peak Hour

Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	421	4	52	477	3	10	3	16	7	458	259	724	108	453	3	564
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	554	5	68	628	4	13	4	21	9	603	341	953	142	596	4	742
Trips - Residential & Office	9	0	0	9	0	0	0	0	0	128	30	158	0	38	0	38
Trips - Retail	13	0	0	13	0	0	0	0	0	26	14	40	0	26	0	26
Total New Trips	22	0	0	22	0	0	0	0	0	154	44	198	0	64	0	64
Future Traffic Volumes:	576	5	68	650	4	13	4	21	9	757	385	1151	142	660	4	806

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

New Paces Ferry Road / Randall Farm Road

A.M. Peak Hour

Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	28	0	4	32	0	0	0	0	0	39	16	55	2	30	0	32
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	37	0	5	42	0	0	0	0	0	51	21	72	3	39	0	42
Trips - Residential & Office	14	0	0	14	0	0	0	0	0	6	4	10	0	22	0	22
Trips - Retail	12	0	0	12	0	0	0	0	0	5	7	12	0	8	0	8
Total New Trips	26	0	0	26	0	0	0	0	0	11	11	22	0	30	0	30
Future Traffic Volumes:	63	0	5	68	0	0	0	0	0	62	32	94	3	69	0	72

P.M. Peak Hour

Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	27	0	2	29	0	0	0	0	0	39	31	70	2	63	0	65
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	36	0	3	38	0	0	0	0	0	51	41	92	3	83	0	86
Trips - Residential & Office	4	0	0	4	0	0	0	0	0	21	13	34	0	6	0	6
Trips - Retail	19	0	0	19	0	0	0	0	0	14	20	34	0	13	0	13
Total New Trips	23	0	0	23	0	0	0	0	0	35	33	68	0	19	0	19
Future Traffic Volumes:	59	0	3	61	0	0	0	0	0	86	74	160	3	102	0	105

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Cumberland Parkway / Bert Adams Road / Kaiser Permanente Driveway

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	67	1237	277	1581	20	434	9	463	4	0	7	11	46	1	9	56
Existing Diverted:	67	1237	332	1636	20	434	9	463	4	0	7	11	54	1	9	64
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	88	1628	437	2153	26	571	12	609	5	0	9	14	71	1	12	84
Trips - Residential & Office	0	0	252	252	35	0	0	35	0	0	0	0	72	0	10	82
Trips - Retail	0	5	0	5	0	8	0	8	0	0	0	0	0	0	0	0
Total New Trips	0	5	252	257	35	8	0	43	0	0	0	0	72	0	10	82
Future Traffic Volumes:	88	1633	689	2410	61	579	12	652	5	0	9	14	143	1	22	166

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	34	789	45	868	2	1318	4	1324	13	0	51	64	59	0	78	137
Existing Diverted:	34	789	58	881	2	1318	4	1324	13	0	51	64	272	0	78	350
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	45	1038	76	1159	3	1734	5	1742	17	0	67	84	358	0	103	461
Trips - Residential & Office	0	0	68	68	10	0	0	10	0	0	0	0	228	0	32	260
Trips - Retail	0	13	0	13	0	13	0	13	0	0	0	0	0	0	0	0
Total New Trips	0	13	68	81	10	13	0	23	0	0	0	0	228	0	32	260
Future Traffic Volumes:	45	1051	144	1240	13	1747	5	1765	17	0	67	84	586	0	135	721

07-012 V at Vinings DRI
Traffic Volumes
Future Conditions

A&R Engineering
November-07

Bert Adams Road / Cumberland Office Park Driveway (Western) / North Site Driveway 1

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	4	0	5	9	64	234	0	298	0	50	8	58
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	5	0	7	12	84	308	0	392	0	66	11	76
Trips - Residential & Office	34	0	2	36	0	0	0	0	0	169	120	289	7	48	0	55
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	34	0	2	36	0	0	0	0	0	169	120	289	7	48	0	55
Future Traffic Volumes:	34	0	2	36	5	0	7	12	84	477	120	681	7	114	11	131

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	7	0	53	60	4	59	0	63	0	74	3	77
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	9	0	70	79	5	78	0	83	0	97	4	101
Trips - Residential & Office	109	0	6	115	0	0	0	0	0	46	34	80	2	153	0	155
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	109	0	6	115	0	0	0	0	0	46	34	80	2	153	0	155
Future Traffic Volumes:	109	0	6	115	9	0	70	79	5	124	34	163	2	250	4	256

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

Bert Adams Road / Cumberland Office Park Driveway (Eastern) / North Site Driveway 2

A.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	3	0	8	11	75	160	0	235	0	51	4	55
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	4	0	11	14	99	211	0	309	0	67	5	72
Trips - Residential & Office	34	0	4	38	0	0	0	0	0	51	120	171	14	21	0	35
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	34	0	4	38	0	0	0	0	0	51	120	171	14	21	0	35
Future Traffic Volumes:	34	0	4	38	4	0	11	14	99	262	120	480	14	88	5	107

P.M. Peak Hour

	Northbound				Southbound				Eastbound				Westbound			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	4	0	43	47	12	61	0	73	0	51	4	55
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	5	0	57	62	16	80	0	96	0	67	5	72
Trips - Residential & Office	109	0	13	122	0	0	0	0	0	20	34	54	4	46	0	50
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	109	0	13	122	0	0	0	0	0	20	34	54	4	46	0	50
Future Traffic Volumes:	109	0	13	122	5	0	57	62	16	100	34	150	4	113	5	122

07-012 V at Vinings DRI

Traffic Volumes
Future Conditions

A&R Engineering
November-07

Bert Adams Road / North Site Driveway 3

A.M. Peak Hour

Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	0	0	0	0	0	163	0	163	0	55	0	55
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	0	0	0	0	0	214	0	214	0	72	0	72
Trips - Residential & Office	14	0	4	18	0	0	0	0	0	6	49	55	14	21	0	35
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	14	0	4	18	0	0	0	0	0	6	49	55	14	21	0	35
Future Traffic Volumes:	14	0	4	18	0	0	0	0	0	220	49	269	14	93	0	107

P.M. Peak Hour

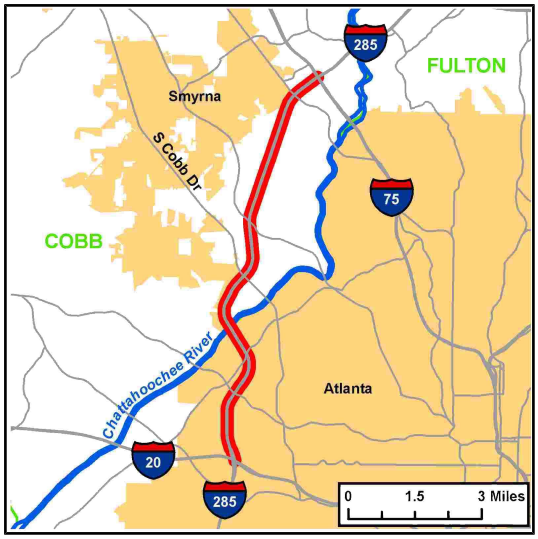
Condition	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing:	0	0	0	0	0	0	0	0	0	65	0	65	0	55	0	55
Growth Factor (%):	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Base Condition:	0	0	0	0	0	0	0	0	0	86	0	86	0	72	0	72
Trips - Residential & Office	44	0	13	57	0	0	0	0	0	19	14	33	4	6	0	10
Trips - Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips	44	0	13	57	0	0	0	0	0	19	14	33	4	6	0	10
Future Traffic Volumes:	44	0	13	57	0	0	0	0	0	105	14	119	4	78	0	82

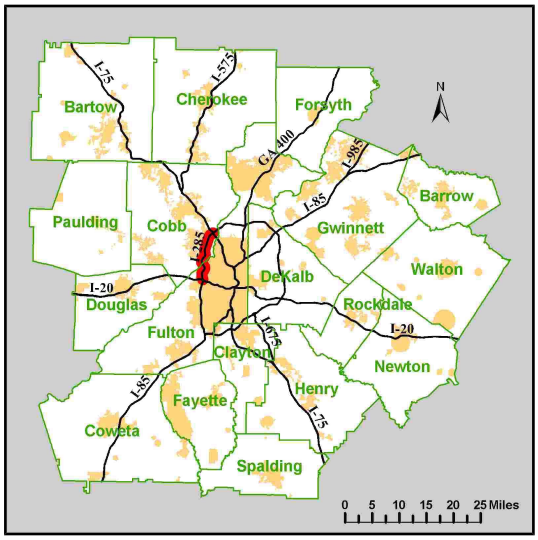
Planned and Programmed Improvements

AR-H-302

Atlanta Region - Mobility2030 Transportation Plan
PROJECT FACT SHEET

Short Title	I-285 WEST HOV LANES FROM I-20 WEST IN CITY OF ATLANTA TO I-75 NORTH IN COBB COUNTY
GDOT Project No.	0003433
Federal ID No.	MSL-0003-00(433)
Status	Programmed
Detailed Description and Justification	Addition of 1 HOV lane in both directions for 10 miles from I-20 to I-75. Dedicated HOV-only ramps will be provided but have not been determined at this time. The HOV lanes will be barrier-separated with median breaks in certain locations to allow for ingress and egress from the HOV lanes as well as emergency vehicle access.
Service Type	HOV Lanes
Sponsor	GDOT
Jurisdiction	Multi-County
Existing Thru Lane	0 *(applicable for road projects only)*
Planned Thru Lane	2/4 *(applicable for road projects only)*
Corridor Length	9.61 miles *(not applicable for all project types)*
Network Year	2030 *(required if modeled for conformity)*
Completion Date	2026
Analysis Level	In the Region's Air Quality Conformity Analysis





Phase Status & Funding Information for 06-11 TIP		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	GRV BONDS (GARVEE Bond Program)	2007	**$19,000,000**	$0,000	$0,000	$19,000,000	$0,000
PE	Interstate Maintenance	2008	**$5,000,000**	$4,500,000	$500,000	$0,000	$0,000
ROW	National Highway System	LR 2021-2030	**$44,000,000**	$35,200,000	$8,800,000	$0,000	$0,000
CST	National Highway System	LR 2021-2030	**$290,000,000**	$232,000,000	$58,000,000	$0,000	$0,000
				$271,700,000	**$67,300,000**	**$19,000,000**	**$0,000**

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

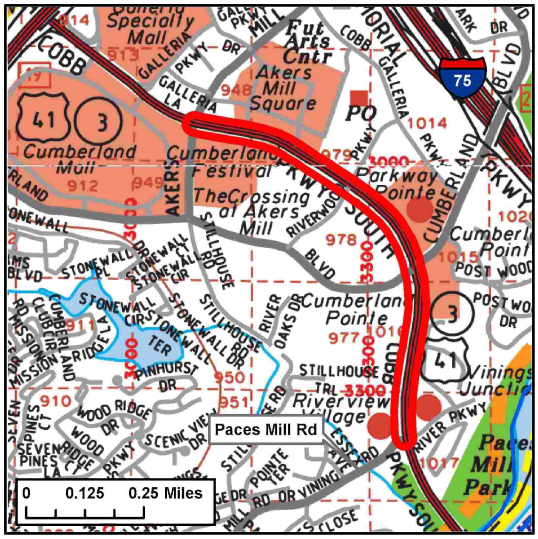
? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

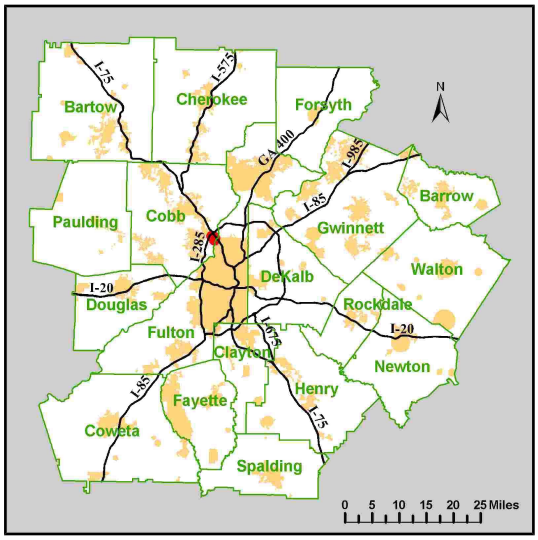
Report Generated: 6/12/2007

CO-231

Atlanta Region - Mobility2030 Transportation Plan
PROJECT FACT SHEET

Short Title	US 41 (COBB PARKWAY) FROM PACES MILL ROAD TO AKERS MILL ROAD
GDOT Project No.	721152-
Federal ID No.	STP-001-5(47)
Status	Programmed
Detailed Description and Justification	This project will widen Cobb Parkway/US 41 from four to eight lanes between Paces Mill Road and Akers Mill Road. The project is designed to meet the need for additional roadway capacity in the I-75 North/US 41 corridor. The project is related to CO-041 series.
Service Type	General Purpose Roadway Capacity
Sponsor	GDOT
Jurisdiction	Cobb County
Existing Thru Lane	4 *(applicable for road projects only)*
Planned Thru Lane	6 *(applicable for road projects only)*
Corridor Length	0.96 miles *(not applicable for all project types)*
Network Year	2015 *(required if modeled for conformity)*
Completion Date	2011
Analysis Level	In the Region's Air Quality Conformity Analysis





Phase Status & Funding Information for 06-11 TIP		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	STP - Statewide Flexible (GDOT)	AUTH	**$0,000**	$0,000	$0,000	$0,000	$0,000
ROW	STP - Statewide Flexible (GDOT)	2008	**$4,130,000**	$3,304,000	$0,000	$0,000	$826,000
CST	STP - Statewide Flexible (GDOT)	2009	**$5,537,000**	$4,429,600	$1,107,400	$0,000	$0,000
				$7,733,600	**$1,107,400**	**$0,000**	**$826,000**

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

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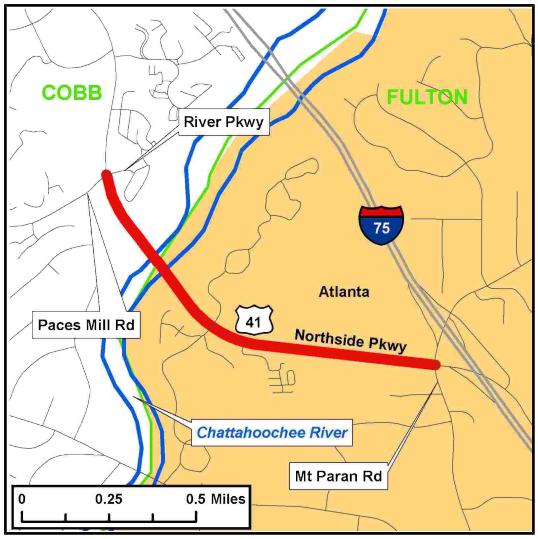
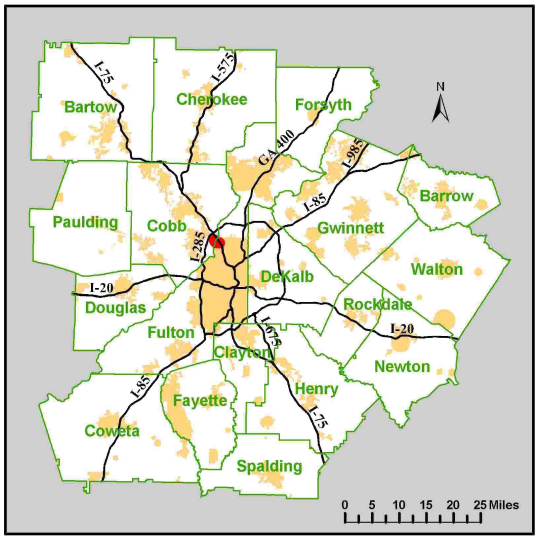
AT-012

Atlanta Region - Mobility2030 Transportation Plan
PROJECT FACT SHEET

Short Title	US 41 (NORTHSIDE PARKWAY) FROM PACES MILL ROAD TO MOUNT PARAN ROAD
GDOT Project No.	720125-
Federal ID No.	BHF-STP-001-5(24)
Status	Long Range
Detailed Description and Justification	In association with AT 012B, this project will widen the Northside Parkway bridge over the Chattahoochee River and the approaches to the bridge. The roadway will transition from eight lanes to six lanes between Paces Mill Road and the approach to the bridge.
Service Type	General Purpose Roadway Capacity
Sponsor	GDOT
Jurisdiction	City of Atlanta
Existing Thru Lane	4 *(applicable for road projects only)*
Planned Thru Lane	6 *(applicable for road projects only)*
Corridor Length	0.9 miles *(not applicable for all project types)*
Network Year	2015 *(required if modeled for conformity)*
Completion Date	2015
Analysis Level	In the Region's Air Quality Conformity Analysis





Phase Status & Funding Information for 06-11 TIP		FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
				FEDERAL	STATE	BONDS	LOCAL/OTHER
PE	FEDAID-2012-2030	AUTH	**$0,000**	$0,000	$0,000	$0,000	$0,000
PE	Bridge (On-System)	AUTH	**$0,000**	$0,000	$0,000	$0,000	$0,000
ROW	FEDAID-2012-2030	AUTH	**$0,000**	$0,000	$0,000	$0,000	$0,000
ROW	Bridge (On-System)	AUTH	**$0,000**	$0,000	$0,000	$0,000	$0,000
CST	FEDAID-2012-2030	LR 2012-2020	**$17,200,000**	$13,760,000	$3,440,000	$0,000	$0,000
CST	Bridge (On-System)	LR 2012-2020	**$17,200,000**	$13,760,000	$3,440,000	$0,000	$0,000
				$27,520,000	**$6,880,000**	**$0,000**	**$0,000**

PE: Preliminary Engineering / Design / Study ROW: Right-of-way Acquistion CST: Construction / Implementation

? For additional information about this project, please visit the Atlanta Regional Commission at www.atlantaregional.com or call (404) 463-3100.

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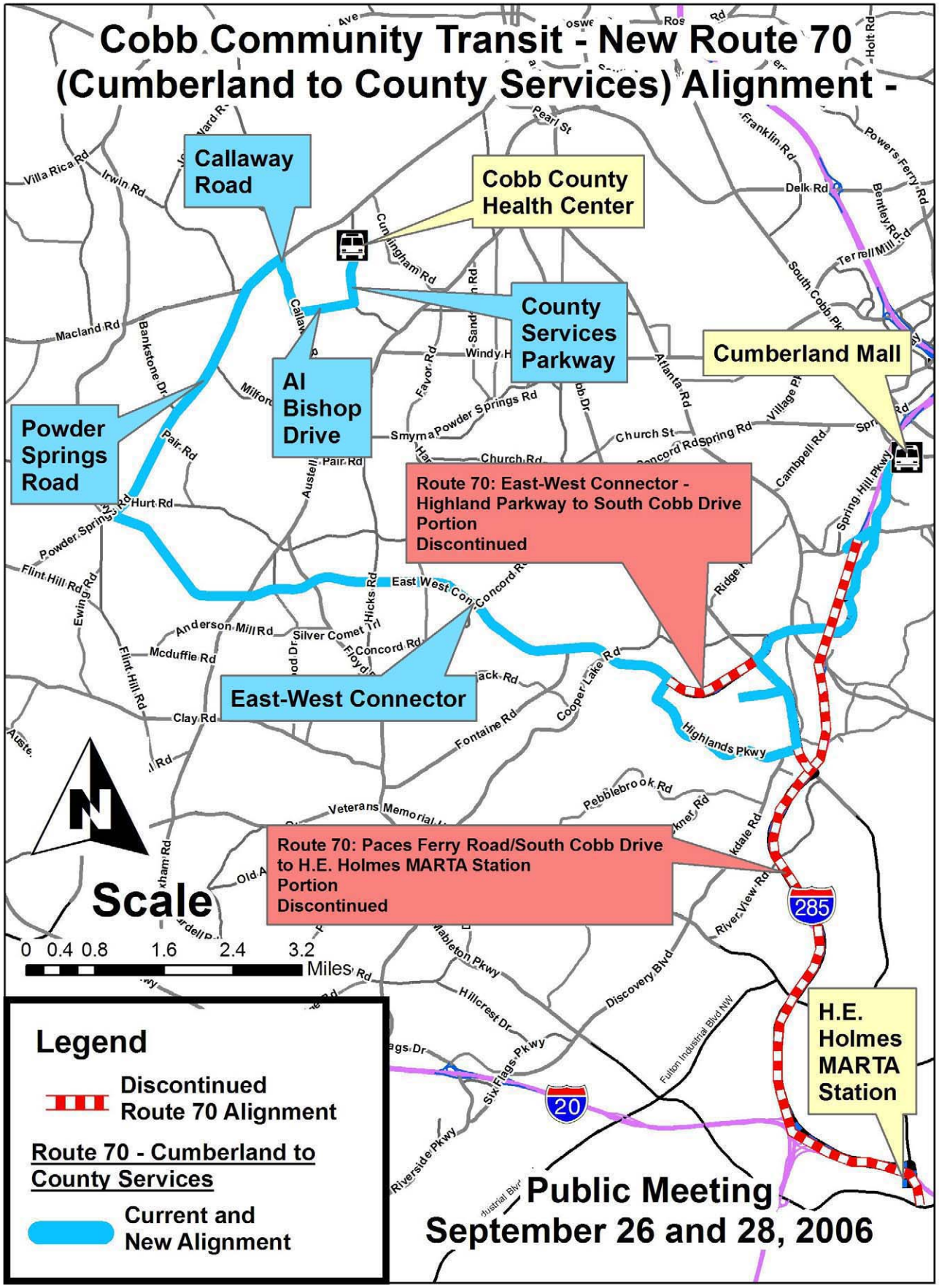
Bus Routes


Cobb Community Transit - New Route 70
(Cumberland to County Services) Alignment -
Callaway Road
Cobb County Health Center
County Services Parkway
Cumberland Mall
Al Bishop Drive
Powder Springs Road
Route 70: East-West Connector - Highland Parkway to South Cobb Drive Portion
Discontinued
East-West Connector
Route 70: Paces Ferry Road/South Cobb Drive to H.E. Holmes MARTA Station Portion
Discontinued
H.E. Holmes MARTA Station
Scale
0 0.4 0.8 1.6 2.4 3.2
Miles
Legend
Discontinued Route 70 Alignment
Route 70 - Cumberland to County Services
Current and New Alignment
Public Meeting
September 26 and 28, 2006

Proposed Facility Site Plan