

**Seminary Road / Beauregard Street  
Corridor(s) Traffic Study**

**Final Report**

Prepared for:  
**City of Alexandria, Virginia**

Prepared by:



**Wilbur Smith Associates**

**January 19, 2007**

# Seminary Road / Beauregard Street Corridor(s) Traffic Study

## Table of Contents

Purpose and Background.....	1
Project Scope.....	3
Existing Conditions.....	5
Data Collection and Field Review.....	5
Traffic Counts.....	5
Field Reconnaissance.....	5
Roadway Geometrics .....	5
Number of Lanes .....	5
Pedestrian Facilities .....	6
Sidewalks and Crosswalks .....	6
Pedestrian Control Devices .....	10
Clear Zone.....	15
Traffic and Mobility Analysis .....	16
Traffic Signal Information .....	16
Operational Analyses.....	18
Queuing.....	18
Level-of-Service .....	19
Accident Data .....	20
Speed Studies .....	21
Transit Accessibility.....	21
Future Conditions.....	26
Future Traffic Volumes .....	26
Roadway Improvements.....	26
Analyses .....	32
Recommendations .....	35
Appendix A – Minutes of Public Meetings	
Appendix B – Turning Movement Counts	

## List of Figures

Figure 1 - Study Area .....	2
Figure 2 - Bus Stops and Traffic Control Devices along Beauregard Street.....	24
Figure 3 - Bus Stops and Traffic Control Devices along Seminary Road .....	25
Figure 4 - Scenario 1: Add Left Turn Lanes on Westbound Seminary Road and Southbound Beauregard Street.....	28
Figure 5 - Scenario 2: Widen Seminary Road between Mark Center Drive and Beauregard Street .....	29
Figure 6 - Scenario 3: Widen Beauregard Street between Seminary Road and Mark Center Drive .....	30
Figure 7 - Scenario 4: Seminary Road "Road Diet".....	31

## List of Tables

Table 1: Issues Identified at the First Public Meeting.....	4
Table 2: Existing Conditions LOS and Delays .....	19
Table 3: Optimized LOS and Delays.....	20
Table 4: Type and Frequency of Collisions (January 2003 to December 2004).....	20
Table 5: Observed Spot Speeds .....	21
Table 6: Build Conditions with Minimal Roadway Improvements - LOS and Delays .....	32
Table 7: AM Peak Hour Throughput .....	33
Table 8: PM Peak Hour Throughput .....	33
Table 9: Throughput on the TWLTL Segment of Seminary Road.....	34

## Purpose and Background

The City of Alexandria has identified sections of the Seminary Road and Beauregard Street corridors for a traffic operational and safety study. The Beauregard Street study limits extend from Sanger Avenue to Seminary Road. The Seminary Road limits extend from Beauregard Street to the City limits to the west, near the intersection with George Mason Drive. **Figure 1** presents the boundaries of the study area.

The Purpose of this Study is to:

1. Work with the neighborhood group and the City of Alexandria staff to identify the traffic operational and safety issues along the corridors within the study area.
2. Analyze traffic operational and safety issues identified by the City staff and the public.
3. Develop short-term and mid-term recommendations for improvements.
4. Document the recommendations for the study corridor.

Beauregard Street is an arterial roadway which traverses through the City of Alexandria in a north-south direction. The roadway begins at Route 236 (Little River Turnpike), and terminates at the intersection of Route 7 (Leesburg Pike) and Walter Reed Drive. Beauregard Street is a 4-lane divided roadway through the study area. A mix of signalized and unsignalized intersections exists along the corridor.

Along Beauregard Street, at the north end of the study area, there are a number of office buildings. There is a small shopping center located in the northwest quadrant of the intersection of Beauregard and Reading streets. John Adams Elementary School is located on Rayburn Avenue to the west of Beauregard Street. William Ramsey Elementary School and William Ramsey Recreational Center are located adjacent to the intersection of Beauregard Street and Sanger Avenue. The Winkler Botanical Preserve, east of Beauregard Street, is accessed via Roanoke Avenue. The rest of the area is primarily residential, consisting of townhouses, low-rise condominiums, and apartment buildings.

Seminary Road is an arterial roadway traversing the City of Alexandria in an east-west direction. It begins at the intersection with Quaker Lane and Janneys Lane and terminates outside the City near the interchange of Route 7 (Leesburg Pike) and Route 266 (Columbia Pike). The study area is adjacent to I-395, a major commuter route through the Northern Virginia region. Direct access is provided to I-395 from Seminary Road via a 3-level diamond interchange. Through the study area, Seminary Road is a 4-lane roadway to the west of Beauregard Street and six lanes to the east. A mix of signalized and unsignalized intersections exists along this corridor.

Along Seminary Road, the land-uses within the study area include residential, commercial, and light industrial. Near the interchange with I-395, a number of high-rise residential units exist on the north side of Seminary Road. The Mark Center complex is located on the south side of Seminary Road in the same area, to the east of Beauregard Street. This complex has a number of mid-rise office buildings and a number of buildings scheduled for construction. A Coca-Cola® bottling plant is located on Dawes Avenue at the west end of the study area. The remainder of the area along Seminary Road is residential.



Figure 1 - Study Area

## Project Scope

On April 22, 2004, City officials held an initial public scoping with concerned citizens of the public, including members of the Seminary West Citizen Association, to define the study parameters. Based upon input provided during this meeting, the City broadened the study to include Beauregard Street from Sanger Avenue to Seminary Road, and Seminary Road from Beauregard Street to the city limits to the west.

Two open meetings were held with the public. The first meeting, held on November 17, 2004, solicited initial public comments and concerns of traffic safety and operational conditions along Seminary Road and Beauregard Street. Citizens were encouraged to identify all concerns but were told the study area was from Sanger Avenue to Seminary Road along Beauregard Street and from Beauregard Street to the city line along Seminary Road.

At the conclusion of the public meeting, citizens were asked to rank issues in one of three categories: low, medium, or high. The results are shown in Table 1. The number adjacent to the issue represents its overall rank. For example, "speeding along Seminary Road during off-peak hours" and "capacity improvements may be needed at Route 7 / I-395 interchange to discourage early exiting from I-395" were both a high categorical ranking, with both considered the highest rank of importance as a number one.

A second public meeting was held at John Adams Elementary School on October 5, 2005. The purpose of this meeting was to respond to previously identified concerns and present conceptual design considerations to improve mobility and safety within the corridors. A copy of the meeting minutes from each of the two public meetings can be found in **Appendix A**.

**Table 1: Issues Identified at the First Public Meeting**

<b>Ranking</b>	<b>Issues</b>
<b>High</b>	
1	Speeding along Seminary Road during off-peak hours
1	Capacity improvements may be needed at Route 7 / I-395 interchange to discourage early exiting onto Seminary Road from I-395
2	Trucks exiting the Coke Plant - additional congestion
2	Handicap accessibility across both Beaugard & Seminary
3	Weaving between I-395 & Seminary / Beaugard
3	Lagging left turn at Echols in the WB direction of Seminary
3	Signal improvements (lack of progression) along Beaugard
3	Serious congestion at Beaugard & Sanger particularly during school hours & weekends
3	Signal along Beaugard - revisit phase sequencing regarding left turns
4	Single left turn lane at George Mason (motorists making illegal left turns)
4	Revisit lane striping along WB Seminary between I-395 & Beaugard
4	Red light running NB Beaugard left turns onto Seminary Road
4	Traffic Calming along Dawes, Rosser and Fillmore
5	Traffic Signal Issues at Seminary & Echols
5	U-turns along Beaugard at Reading & Rayburn do not have enough lateral clearance
6	Bus pull outs along Seminary & Beaugard
7	Consider WB Seminary flyover from two lanes to one lane
8	Red light running at Echols
<b>Medium</b>	
9	Revised Bus stop locations
10	Collisions & red light running at Dawes & Seminary
11	Provide Turn Lanes along Seminary Road
11	Opposing Seminary Road left turns at Echols - stalemate
11	Rear-end collisions at free flow right turns from EB Seminary Road onto SB Beaugard
11	Changing lane configuration on Dawes at Seminary
11	EB Seminary Road left turns at Beaugard cannot turn left due to thru traffic blocking lane
12	EB Seminary Road right turns at Beaugard cannot turn right due to thru traffic overflow
12	Speed Regulation / Traffic Calming on Echols EB
12	EB Seminary Road right turns at Beaugard cannot turn right due to thru traffic overflow
12	Left turn provisions along EB and WB Seminary Road
12	Left turns from Southern Towers onto SB Beaugard
13	Pedestrian accessibility along Beaugard
<b>Low</b>	
14	Crosswalk at Echols not properly aligned

## Existing Conditions

### ***Data Collection and Field Review***

Data collection included performing turning movement counts, field reconnaissance, obtaining accident data from police reports, and travel time runs through the corridor.

### **Traffic Counts**

Vehicle turning movement counts were performed at 14 intersections and pedestrian movements were recorded at three intersections in January 2005. The vehicle turning movement counts were performed during the AM (7:00 to 8:00 AM) and PM (5:00 to 6:00 PM) peak hours. At selected intersections, pedestrian movements were recorded during these two same periods, as well as during a midday peak hour (2:00 to 3:00 PM), which corresponds to the peak period for the school hours.

The following intersections and type of counts performed are:

1. Beauregard Street and Sanger – vehicle turning count and pedestrian counts
2. Beauregard Street and Roanoke – vehicle turning count
3. Beauregard Street and Reading – vehicle turning count
4. Beauregard Street and Rayburn – vehicle turning count
5. Beauregard Street and Highview – vehicle turning count
6. Beauregard Street and Mark Center – vehicle turning count
7. Seminary Road and Mark Center – vehicle turning count and pedestrian counts
8. Seminary Road and Beauregard Street – vehicle turning count and pedestrian counts
9. Seminary Road and Fairbanks – vehicle turning count
10. Seminary Road and Fillmore – vehicle turning count
11. Seminary Road and Fillmore/Dover – vehicle turning count
12. Seminary Road and Dawes – vehicle turning count
13. Seminary Road and Colfax – vehicle turning count
14. Seminary Road and George Mason Drive – vehicle turning count

Turning movement counts are provided in **Appendix B**.

### **Field Reconnaissance**

During several field visits, information was gathered on roadway geometry, traffic control devices, location of bus stops, type of bus stop (i.e. with a bus bay/pull-out), and pedestrian crossing locations.

### ***Roadway Geometrics***

#### **Number of Lanes**

Beauregard Street is a 4-lane divided facility from Sanger Avenue to Rayburn Avenue. Left turn bays exist at all intersections in this segment. North of Rayburn Avenue, the northbound direction widens to three lanes, thus the cross-section of Beauregard is five lanes with a median. The northbound approach to Seminary is three lanes wide with two through lanes, a left turn lane, and a left turn bay. There is also a channelized lane for the right turn

movement. Lane widths are typically 11 feet, except some 9-foot lanes exist at the intersections.

Seminary Road is a 5-lane divided facility, with three lanes in the eastbound direction approaching Beauregard Street and two lanes westbound west of Beauregard Street, for a distance of approximately 180 feet. From that point west to Dawes Avenue, Seminary is a 4-lane undivided facility. At Dawes Avenue Seminary Road becomes divided and widens to five lanes. Left turn bays exist on Seminary Road at Beauregard, Dawes, and George Mason. Left turn bays do not exist on the portion of Seminary Road between Dawes and Beauregard. Typically, Seminary Road has lane widths of 10-11 feet. East of Beauregard Street, Seminary Road is a 6-lane divided facility with lane widths of 11 feet or more. Left turn bays exist on Seminary Road in this segment.

### ***Pedestrian Facilities***

#### **Sidewalks and Crosswalks**

Sidewalks exist on both sides of Beauregard Street from Sanger Avenue to Seminary Road. At each intersection, marked pedestrian crosswalks exist, and at Sanger Avenue, all crossings are marked with high visibility markings.

Most intersections along the corridor have ADA wheelchair ramps to provide access for disabled pedestrians. However, ADA wheelchair ramps do not exist at crosswalk termini in two locations on the west side of Beauregard Street at Highview Lane. Photographs 1 and 2 show the existing crosswalks crossing Beauregard Street that lack ADA ramps. All other crosswalks at this intersection have ADA ramps.

**Photograph 1 and 2: Lack of ADA Wheelchair Ramps**



Further north, the sidewalk on the east side of Beauregard traverses alongside the Mark Center property to the intersection of Seminary and Mark Center Drive and does not provide access across the channelization island at the intersection with Seminary Road. In addition, on the east leg of Seminary Road at Beauregard Street, a crosswalk does not exist for pedestrians to cross Beauregard Street at this location, as shown by Photograph 3.

**Photograph 3: Lack of a Marked Crosswalk at Seminary Road / Beauregard Street Intersection**



Pedestrians, traversing along the east side of Beauregard Street, must instead cross Beauregard at Mark Center Drive and travel along the west side of Beauregard to cross Seminary Road, then must cross Beauregard again if their final destination is on the east side of Beauregard. The lack of a crosswalk on the east leg of this intersection can encourage jaywalking, as shown in Photograph 4.

**Photograph 4: A Jaywalker Crossing Seminary Road**



Along Seminary Road, the sidewalk is continuous; however, there exist locations where the width is substandard or the sidewalk is in poor condition. In the northeast quadrant of the intersection with Beauregard, the sidewalk in the channelized island is asphalt and in poor condition, not to mention less than four feet wide, as shown in Photograph 5. This could pose some mobility constraints for the disabled. Photograph 6 shows the poor condition of the sidewalk in the southwest quadrant of the same intersection.

**Photograph 5 and 6: Poor Condition of Sidewalk in the Intersection of Seminary Road and Beauregard Street**



Continuing westward from Beauregard, there are locations along the north side of Seminary at which the sidewalk curves around mature trees, or there is a pole in the middle of the sidewalk. In both cases, the effective width of the sidewalk is less than four feet, which could cause difficulty for disabled pedestrians. Photographs 7 and 8 present several samples of obstructions for pedestrians along the sidewalk on the north side of Seminary Road.

**Photograph 7 and 8: Obstructions in the Sidewalk**



An unsignalized crosswalk, marked with high visibility markings, exists on Seminary Road at the intersection with Fairbanks Avenue. The crosswalk is signed in advance with pedestrian crosswalk signs in both directions on Seminary Road. Photograph 9 shows the crosswalk markings at this location.

**Photograph 9: Marked Crosswalk at  
Fairbanks Avenue**



At the intersection of Seminary Road and Echols Avenue, pedestrian signal heads exist for pedestrians crossing Seminary Road on the east side of the intersection, however; a marked crosswalk does not currently exist, as shown in Photograph 10. The signal was recently reconfigured, and the old crosswalk markings were eradicated, but new crosswalk markings were not installed. In addition, the Echols Avenue crosswalk on the north side of the intersection is marked only halfway across the roadway. It is possible that both the lack of a crosswalk across Seminary Road and the partial removal of the Echols Avenue crosswalk are due to utility work which included excavation within the roadway. Once all utility work is completed in this section of roadway, the pedestrian crosswalk markings should be installed as necessary.

**Photograph 10: Unmarked Crosswalk  
at the Seminary Rd / Echols Ave  
Intersection**



**Photograph 11: Students Crossing  
Seminary Road at Echols Avenue**



Currently a crosswalk does not exist across Seminary Road on the west side of this intersection. However, Metrobus stops exist along both eastbound and westbound Seminary Road on the west side of this intersection. A westbound school bus was also observed stopping and discharging students between the Echols Avenue legs of the intersection. As a result of the lack of a crosswalk, Metrobus riders and school children cross Seminary Road in locations other than where the crosswalks are currently located.

### **Pedestrian Control Devices**

Pedestrian signal heads exist at most signalized intersections within the study area where crosswalks are present. In most instances where there are pedestrian signal heads, there are pedestrian pushbuttons. The pedestrian pushbuttons present throughout the corridor are typically not compliant with current ADA standards.

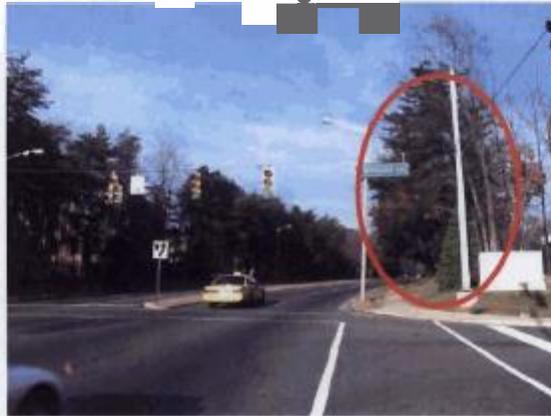
Countdown pedestrian signal heads exist at the intersection of Beauregard Street and Sanger Avenue, a heavily traveled intersection located adjacent to William Ramsey Elementary School. The push buttons at the intersection of Sanger Avenue with Beauregard Street are shown in Photographs 12 and 13 below. These photographs also show the inconsistency of pedestrian signage at this intersection.

**Photograph 12 and 13: Typical Pedestrian Push Buttons**



There are some locations along Beauregard at which pedestrian signal heads do not exist. As shown in Photograph 14, the crosswalk across the east leg of Beauregard and Rayburn Avenue does not have pedestrian signal heads. Pedestrians crossing at this location must rely on the traffic signal heads to determine when it is safe to cross.

**Photograph 14: Lack of Pedestrian Signal Heads**



At the same intersection, the pushbutton in the southeast quadrant is located on the traffic signal pole. Pedestrians must step up a small hill to reach this push button, as demonstrated in Photographs 15 and 16. Pedestrians with mobility impairments may not be able to reach the pushbutton.

**Photographs 15 and 16: Pedestrian Impedance Due to Poor Location of Pedestrian Push Button**



Although pedestrian signal heads exist at the intersection of Beauregard Street and Highview Lane, they are not located near the crosswalks on the west side of the intersection. Pedestrians have to look at an angle away from the intersection to see the pedestrian signal heads on the signal pole, as shown in Photograph 17. Also, the pedestrian push buttons on the west side of the intersection are not located adjacent to the crosswalk, but rather across the channelized right turn lanes, as shown in the same photograph. This means that a pedestrian has to push the button and cross the channelized turn lane to reach the channelization island and the crosswalk.

**Photograph 17: Poorly Placed  
Pedestrian Signal Head and Pushbutton**



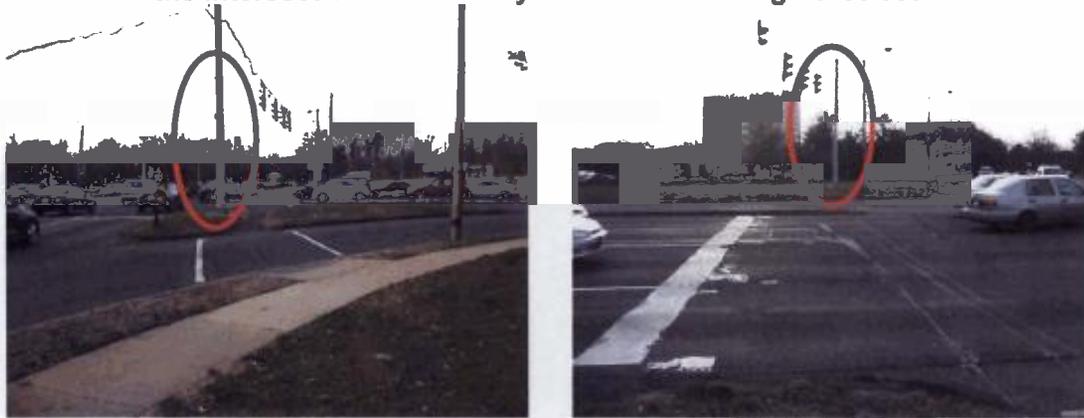
The pedestrian push buttons at Beauregard Street and Mark Center Drive include audible pedestrian signals, shown in Photograph 18, for pedestrians crossing the south and east legs of the intersections.

**Photograph 18:  
Audible Pedestrian Signal**



At the intersection of Seminary Road and Beauregard Street, pedestrian signal heads do not exist, as shown in Photographs 19 through 22. This is the only signalized intersection within the study area that does not have any pedestrian signal heads. The current proposed signal modification will added pedestrian signal heads only on the north and west legs of the intersection.

**Photographs 19 and 20: Lack of Pedestrian Signal Heads at the Intersection of Seminary Road and Beauregard Street**



**Photographs 21 and 22: Lack of Pedestrian Signal Heads at the Intersection of Seminary Road and Beauregard Street**



The crosswalks (one marked and two unmarked) at the intersection of Seminary Road and Echols Avenue all have countdown pedestrian signal heads.

Three marked crosswalks exist at the intersection of Seminary Road and Dawes Avenue; however, the south leg does not have pedestrian signal heads, as shown in Photograph 23.

**Photograph 23: Lack of  
Pedestrian Signal Head**



A summary of the pedestrian issues described above is as follows:

- Sidewalk is not continuous along the east side of Beauregard Street from the intersection with Mark Center Drive to the intersection with Seminary Road.
- Wheelchair ramps do not exist on the west side of the intersection of Beauregard Street and Highview Lane for pedestrians crossing Beauregard Street.
- Sidewalk along Seminary Road is in poor condition in some locations and is an insufficient width due to trees and poles.
- Pedestrian signal heads do not exist at a number of locations, including the intersection of Seminary Road and Beauregard Street. Therefore, pedestrians must rely on the vehicular signal head to determine whether they can cross the roadway.
- Pedestrian pushbuttons do not meet the current ADA standards.
- Some pedestrian push buttons may be inaccessible to pedestrians with restricted mobility due to the push button location.
- At Echols Avenue, the pedestrian signal heads are on the opposite side of the intersection from the bus stops.

### ***Clear Zone***

The concept of a Clear Zone is to provide enough distance between the edge of the traveled way and an object to allow a vehicle that leaves the roadway the ability to recover without hitting the object. The Virginia Department of Transportation (VDOT) has identified 7.5 feet as the desirable, and 1.5 feet as the absolute minimum, clear zone behind a curb. There are several locations along Beauregard Street in which there are street light poles that are within the absolute minimum requirements. Most of these light poles seem to have not caused any safety issues. But the pole located in the northeast quadrant of the intersection with Rayburn Avenue has paint scraps from where it has been struck by more than one vehicle, as illustrated in photographs 24 and 25.

**Photographs 24 and 25: A Light Pole Which Has Been Struck**



Seminary Road also has poles (power and communications) in the streetscape area along the south side of the roadway, between the back of curb and the sidewalk, from Beauregard Street to Colfax Street, as shown in Photograph 26. In this area, the narrow right-of-way leaves little room for the poles and signs, necessitating their placement within the Clear Zone. During the field reconnaissance, no pole or sign was observed to have been struck by a vehicle.

**Photograph 26: Narrow Streetscape  
Zone along Seminary Road**



## ***Traffic and Mobility Analysis***

### **Traffic Signal Information**

Signal timings and phasing information were obtained from the City of Alexandria for the intersections in the study area. Signals along Seminary Road have a cycle length of 120 seconds during both the AM and PM peak periods. Along Beauregard Street, the cycle lengths vary depending on time period. The cycle length at Beauregard and Mark Center is 120 seconds. At the intersection of Beauregard Street and Sanger Avenue, the cycle length is 130 seconds. All other signals on Beauregard Street operate on a cycle length of 100 seconds during the AM peak period and 110 seconds during the PM peak period.

Phasing of the signals vary throughout the corridors, depending on location. Phasing information for signals along Beauregard Street is identified below:

#### **Sanger Avenue**

- split phasing for the minor approaches (cross streets)
- exclusive pedestrian phase
- protected/permitted lefts from Beauregard Street

#### **Roanoke Avenue**

- stop controlled on the minor approaches
- no control for Beauregard Street

Reading Avenue

- movements on both minor approaches go at the same time
- protected/permitted lefts from Beauregard Street

Rayburn Avenue

- movements on both minor approaches go at the same time
- protected/permitted lefts from Beauregard Street

Highview Lane

- movements on both minor approaches go at the same time
- protected/permitted lefts from Beauregard Street

Mark Center Drive

- movements on both minor approaches go at the same time
- protected/permitted lefts from Beauregard Street

Intersections along Seminary Road:

Beauregard Street

- protective lefts only from all four approaches

Fairbanks Avenue

- stop controlled on the minor approaches
- no control for Seminary Road
- no turn pockets for left turn movement from Seminary Road

Echols Avenue

- split phasing for the minor approaches (cross streets)
- protective and permitted lefts for westbound Seminary Road provided using a lagging left turn phase
- permitted lefts for eastbound Seminary Road
- no turn pockets for left turn movement from Seminary Road

Fillmore Avenue and Dover Place

- stop controlled on the minor approaches
- no control for Seminary Road
- no turn pockets for left turn movement from Seminary Road

Dawes Avenue

- movements on both minor approaches go at the same time
- protected/permitted lefts from Beauregard Street

Signal coordination along Beauregard Street has been stated by the public to be poor. Part of the reason for the poor coordination can be attributed to the signal cycle length varying along the corridor. When adjacent signals operate at varying cycle lengths, it is not possible to create progression along the corridor. Signal progression seems to be sufficient along Seminary Road, as the cycle lengths are the same. It appears that during the PM peak period this is not the case, due to the congestion along Seminary Road. However, the heavy

PM volumes at the intersection of Seminary Road and Beauregard Street, and volumes destined for I-395, play a major factor in the congestion in the study area.

### **Operational Analyses**

The operational analyses examined a number of factors, including queuing, level-of-service, accident data, speed data, and transit accessibility. In addition to these factors, the ability, or inability, of vehicles to make a U-turn at an intersection was also examined for the intersections of Beauregard Street at Reading Avenue and Beauregard Street at Rayburn Avenue. These two locations were identified during the citizen meetings as locations where U-turn vehicles were getting stuck because of the roadway width.

Upon review of these intersections it was determined U-turns should be prohibited from northbound Beauregard at both locations. In addition, U-turns from southbound Beauregard should be prohibited at Rayburn Avenue. There are a number of vehicles leaving the shopping center and making a U-turn from southbound Beauregard at Reading Avenue. The width at this location is such that a passenger vehicle can make a U-turn; however, trucks should be prohibited from making a U-turn at this location. Furthermore, the signal phasing for the southbound left turn is currently protected / permitted phasing. Accident rates at this intersection should be reviewed on a regular basis to determine if the protected / permitted phasing should be changed to protected only.

### **Queuing**

For the most part, queuing is relatively minor within the study area, although several locations exist within the study corridor where heavy queuing results from the high traffic volume.

At the intersection of Beauregard Street and Sanger Avenue, the northbound direction queues in the morning peak period and the southbound direction queues in the evening peak period. During the morning peak period, a high number of school children cross Beauregard Street on their way to William Ramsey Elementary School. A crossing guard is present to assist children with the crossing.

While the heavy volume of traffic at the intersection of Seminary Road and Beauregard Street does cause some congestion, a major source of queuing along Seminary Road in the PM peak period is the traffic volume destined for I-395. Vehicles destined for I-395 traveling eastbound on Seminary Road tend to favor the right lane. It was observed that traffic was stop-and-go along Seminary Road in the right lane from Dawes Avenue to Beauregard for this reason.

The queuing along eastbound Seminary Road is exacerbated by weaving issues along eastbound Seminary Road between Mark Center Drive and the I-395 ramp. The right turn lane from northbound Beauregard Street to eastbound Seminary Road becomes a fourth lane between the terminus of the channelization island and Mark Center Drive. However, at Mark Center Drive this lane must turn right into Mark Center Drive. The second lane from the right (the rightmost eastbound lane through the intersection) becomes used exclusively for the entrance ramp to southbound I-395 just past the intersection. As a result, traffic turning right onto eastbound Seminary Road from northbound Beauregard must weave from the rightmost lane across one lane of traffic to continue to points east of I-395. In addition, some eastbound Seminary Road drivers destined for southbound I-395 will stay to the left to

jump the queue on Seminary Road and try to maneuver in front of other vehicles, further slowing down eastbound through traffic on Seminary Road.

The intersection of George Mason Drive and Seminary Road lies just outside the city limits and therefore outside the study area. However, the queuing at this intersection causes spillback that affects the study area. It is the westbound lefts at this intersection that often spill back into the adjacent intersection of Beauregard and Dawes. This is due to the heavy lefts that can only move from a single left turn lane during the protected phase. The through movement, which has three lanes, is not congested. The city staff has been in contact with VDOT staff concerning this location. VDOT has agreed to review this intersection for potential improvements to reduce queuing at this location.

**Level-of-Service**

Synchro, a signal timing and analysis computer program, was used to analyze the intersections, both signalized and unsignalized, along both Seminary Road and Beauregard Street. Output from Synchro includes level-of-service (LOS) and delays. Table 3 presents the existing conditions LOS and delays.

**Table 2: Existing Conditions LOS and Delays**

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Beauregard St / Sanger Ave	F	118.9	F	96.6
Beauregard St / Roanoke Ave <sup>1</sup>	A	1.9	A	0.9
Beauregard St / Reading Ave	A	9.0	B	12.6
Beauregard St / Rayburn Ave	A	8.7	B	11.4
Beauregard St / Highview Ln	A	7.8	A	9.2
Beauregard St / Mark Center Dr	C	28.9	B	12.3
Seminary Rd / Beauregard St	D	44.0	D	38.1
Seminary Rd / Fairbanks Ave <sup>1</sup>	A	0.3	A	4.6
Seminary Rd / Echols Ave	A	3.3	B	11.3
Seminary Rd / Fillmore Ave (N) <sup>1</sup>	A	0.6	A	0.6
Seminary Rd / Fillmore Ave (S) / Dover Pl <sup>1</sup>	A	0.8	A	9.3
Seminary Rd / Dawes Ave	B	13.7	E	57.3

1 – Unsignalized intersection

To improve traffic LOS and progression, the traffic signals were optimized. Included in the optimization process was a common cycle length of 120 seconds, optimized phasing, and signal offsets. This process optimized the network as a whole, not by individual intersections. Thus, there are instances in which one intersection may deteriorate slightly in LOS, but overall the network performs better. Table 3 presents the LOS for the study intersections with optimized signal timings.

**Table 3: Optimized LOS and Delays**

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Beauregard St / Sanger Ave	F	86.7	F	99.5
Beauregard St / Roanoke Ave <sup>1</sup>	A	1.7	A	0.9
Beauregard St / Reading Ave	A	5.8	B	10.1
Beauregard St / Rayburn Ave	A	6.4	B	11.4
Beauregard St / Highview Ln	A	7.9	A	5.5
Beauregard St / Mark Center Dr	A	3.4	B	10.9
Seminary Rd / Beauregard St	C	29.9	D	37.7
Seminary Rd / Fairbanks Ave <sup>1</sup>	A	0.3	A	5.6
Seminary Rd / Echols Ave	A	3.2	B	12.4
Seminary Rd / Fillmore Ave (N) <sup>1</sup>	A	0.6	A	0.6
Seminary Rd / Fillmore Ave (S) / Dover Pl <sup>1</sup>	A	0.8	A	7.8
Seminary Rd / Dawes Ave	A	8.4	B	15.6

1 – Unsignalized intersection

**Accident Data**

Accident data was obtained from the Alexandria Police Department for the intersections within the study area for the period from January 1, 2003 to December 31, 2004. Table 4 summarizes the number and type of accidents by location:

**Table 4: Type and Frequency of Collisions (January 2003 to December 2004)**

LOCATION	TYPE OF ACCIDENT						TOTAL
	Rear End	Angle	Sideswipe	Fixed Object	Pedestrian	Other *	
Seminary/Beauregard	70	10	4	1	-	1	86
Beauregard/Sanger	8	5	3	2	1	-	19
Beauregard/Roanoke	-	-	-	3	-	-	3
Beauregard/Reading	5	3	1	2	-	2	13
Beauregard/Rayburn	5	3	-	1	1	-	10
Beauregard/Mark Center	-	6	-	-	-	1	7
<b>Total on Beauregard Ave.</b>	<b>18</b>	<b>17</b>	<b>4</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>52</b>
Seminary/Fairbanks	2	-	-	-	-	-	2
Seminary/Echols	15	7	1	-	1	1	24
Seminary/Fillmore	8	7	3	-	-	-	18
Seminary/Dawes	2	14	3	-	-	-	19
<b>Total on Seminary Road</b>	<b>27</b>	<b>28</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>63</b>
<b>TOTAL ACCIDENTS</b>	<b>115</b>	<b>55</b>	<b>15</b>	<b>9</b>	<b>3</b>	<b>4</b>	<b>201</b>

\* – includes 1 head-on accident at Seminary/Beauregard and 1 head-on at Beauregard/Reading

A total of 201 accidents occurred within the study area between January 2003 and December 2004. The most frequent type of accident was rear-end collisions accounting for 115 collisions, approximately 57% of all accidents. The next most frequent type of accident was angled-collisions: a total of 55 accidents, or approximately 27% of all accidents. These two types of collisions, totaling 170, represent approximately 85% of all recorded accidents within the study area.

The intersection of Seminary Road and Beauregard Street is the most frequent location for accidents: a total of 86 accidents or nearly 43% of all collisions within the study area. Most of the rear-end collisions that occur at this location are on the channelized right turn lanes (or pork chop legs) for northbound Beauregard to eastbound Seminary and eastbound Seminary to southbound Beauregard movements. Typically, what occurs is that the first vehicle, stopped at the end of the right turn lane waiting for an acceptable gap in the traffic, is struck from behind by a second vehicle whose driver was looking over their shoulder for a gap in the traffic stream.

**Speed Studies**

Spot speeds were measured at the intersections of Beauregard Street and Rayburn Avenue and at Seminary Road & Echols Avenue. The posted speed limit on both roadways is 35 mph. Most vehicles operate within the posted speed limit, but approximately 15% of vehicles do exceed the posted speed limit on either roadway. At each location, extremely excessive speeds were recorded. Table 5 presents the recorded speeds at these two intersections; the data does not include vehicles stopped at the intersections due to a red light.

**Table 5: Observed Spot Speeds**

LOCATION	DATE	OBSERVED SPEEDS		
		Minimum	85 <sup>th</sup> Percentile	Maximum
NB Beauregard at Rayburn	June 10, 2004	11	36	59
	June 14, 2004	11	36	64
SB Beauregard at Rayburn	June 10, 2004	11	34	54
	June 14, 2004	11	36	62
WB Seminary at Echols	June 9, 2004	11	36	74
	June 14, 2004	11	37	60
EB Seminary at Echols	June 9, 2004	11	34	58

Typically, speed limits are set at the 85<sup>th</sup> percentile speed of the vehicles traveling on the roadway. Therefore, the posted speed limit is appropriate for both roadways.

**Transit Accessibility**

The study area is served by both WMATA's Metrobus and the City of Alexandria's DASH bus. Along Beauregard, there are eleven bus stops, of which five have a bus pullout and six do not. Also, five stops have a bus shelter and six do not. Along Seminary Road, there are eight bus stops, four per direction. These stops do not include a pullout or shelter due to narrow right-of-way along this corridor.

DASH has one bus route through the study area, Route AT2. This route links Van Dorn Metrorail station to Old Town, via Landmark Mall, Beauregard Street, Seminary Road, and King Street Metrorail Station. This bus runs on headways of approximately 20-25 minutes during the AM peak period, 30 minutes during midday and 20-25 minutes during the PM peak period.

Metrobus has extensive coverage in this area. The routes include:

- The Lincolnia-North Fairlington Line: routes 7A, 7F, 7W, and 7X along Beauregard Street

- Annandale-Skyline City-Pentagon Line: route 16L along Seminary Road with selected alternating stops
- Ballston-Bradlee-Pentagon Line: routes 25A, 25 F, 25 J, 25 P, and 25 R along Seminary Road with selected alternating stops
- Alexandria-Tyson's Corner Line: routes 28A and 28B along Seminary Road with selected alternating stops
- Skyline City Line: routes 28 F and 28G along Seminary Road with selected alternating stops

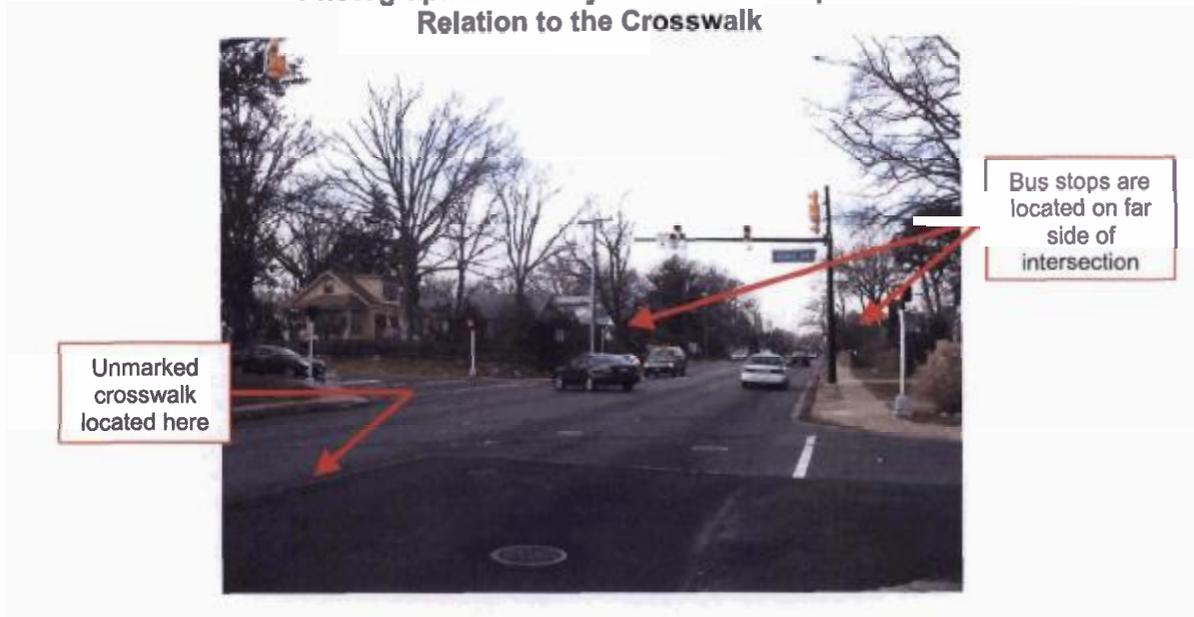
Access to transit service is good, as stops are distributed fairly evenly throughout the corridor. Access is not an issue in the study area, but rather the conditions of several stops, as well as the specific location of stops in relationship to the crosswalks. Several locations along Beauregard Street do not have a concrete pad between the sidewalk and curb; transit users currently step onto the grass streetscape area. This could cause some problems as people step out of the bus onto the grass to reach the sidewalk, as they could lose their footing. Photograph 27 shows a typical location on Beauregard Street which would need a concrete pad.

**Photograph 27: Typical Location Lacking a Concrete Pad for Transit**



Several locations also exist along Seminary Road at which a concrete pad is needed for the same reason. The locations of some bus stops along Seminary Road should be relocated, such as the stops adjacent to the intersections with Echols and Dawes Avenue, so they are on the same side of the intersection as the crosswalks. There is one crosswalk across Seminary Road at Echols Avenue but the bus stops for both directions on Seminary Road are located on the other side of the intersection. These stops should be relocated to the same side of the intersection as the crosswalk to minimized pedestrian movements through the intersection. Photograph 28 illustrates this fact.

**Photograph 28: Poorly Placed Bus Stops in Relation to the Crosswalk**



This also occurs at one of the bus stops at the intersection of Seminary road and Dawes Avenue, as illustrated in Photograph 29. The bus stop should be relocated to the same side of the intersection as the crosswalk, or a new crosswalk and pedestrian signal heads should be installed.

**Photograph 29: Poorly Placed Bus Stop in Relation to the Crosswalk**



Figures 2 and 3 show the location of all bus stops, crosswalks, and type of intersection control along Seminary Road and Beauregard Street.

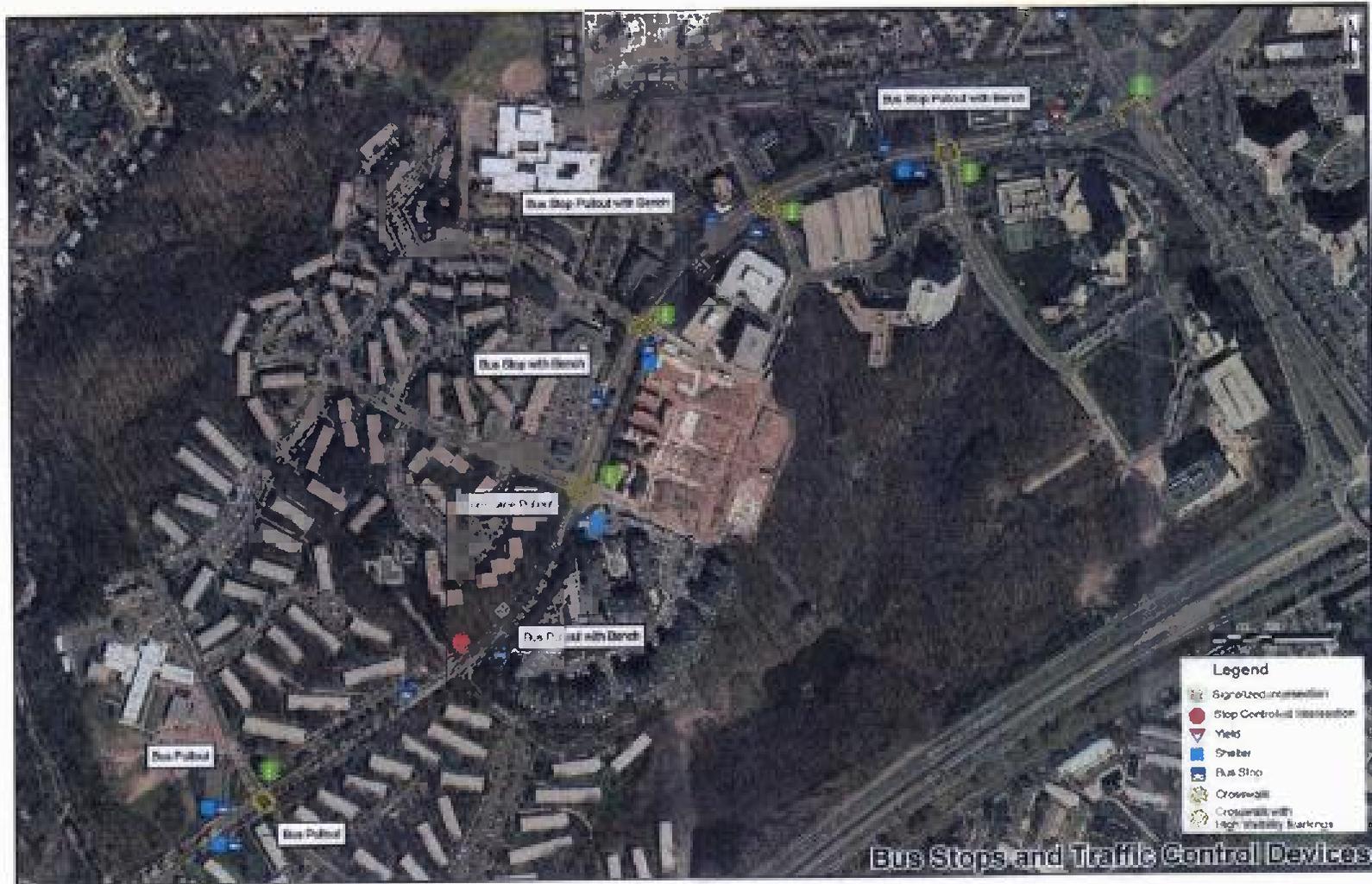


Figure 2 - Bus Stops and Traffic Control Devices along Beauregard Street

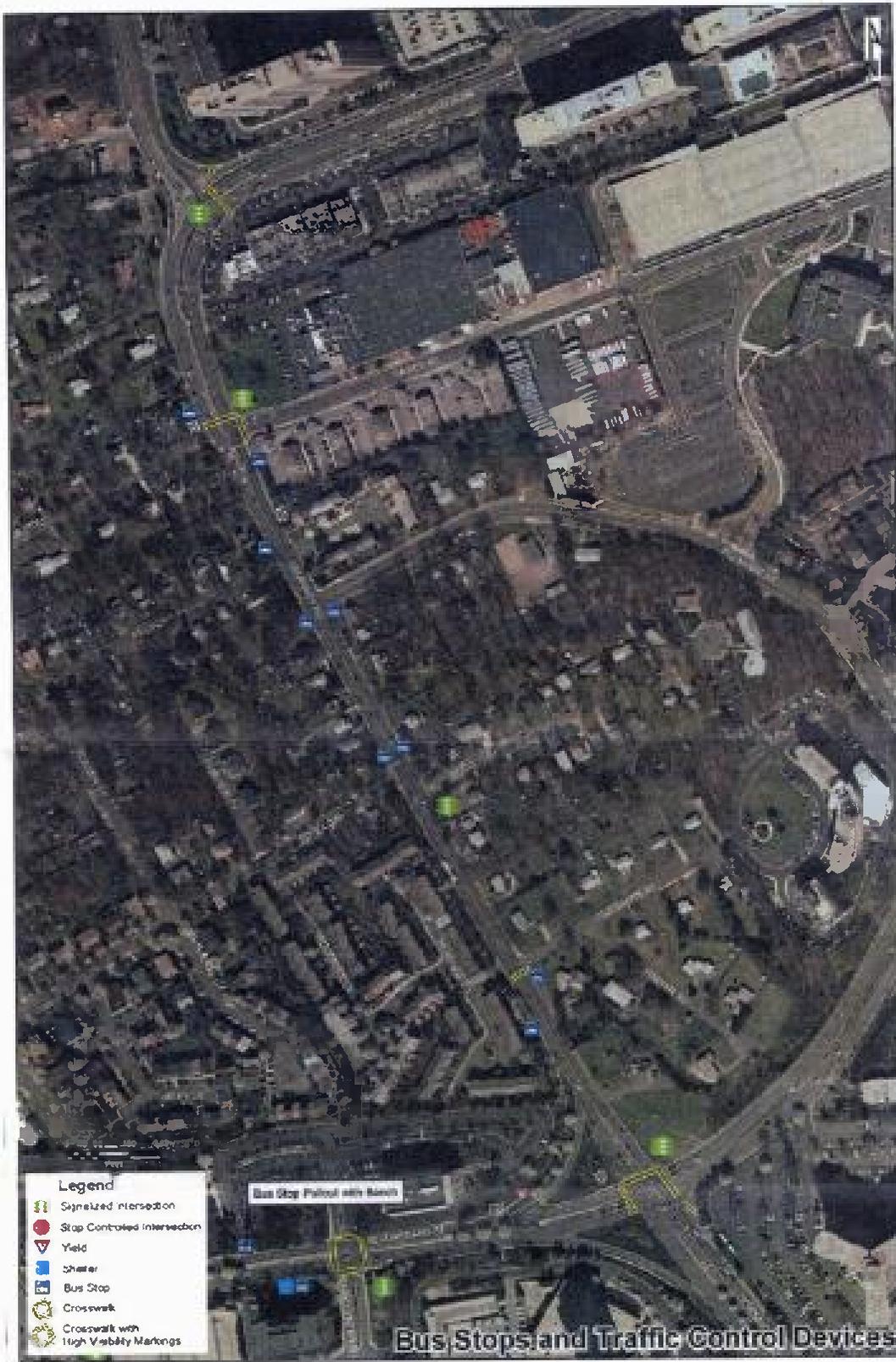


Figure 3 - Bus Stops and Traffic Control Devices along Seminary Road

## Future Conditions

Future conditions assume existing space available for lease in Mark Center is occupied, the development and occupancy of 1,368,000 square feet of office space on Mark Center Parcel 1A, as well as the development and occupancy of an additional 374,616 square feet of office space on Mark Center Parcel 1B.

### *Future Traffic Volumes*

Traffic forecasts prepared by Wells & Associates<sup>1</sup> were used as the basis to developed future traffic volumes for the study area. The build volumes reflect the existing volumes plus the trips generated due to the proposed Mark Center development.

Background traffic growth was not included in the traffic volumes provided in the Wells report. The report states that there was a 2.74% reduction in traffic volume between June 1994 and May 2002. The report then goes on to state, "Based on historical traffic trends, no ambient traffic growth was considered in this analysis."

The Wells report included traffic volumes for the intersections of Seminary Road / Beauregard Street, and Beauregard Street / Mark Center Drive. Using the existing turning movement percentages at each intersection and the Build volumes from the Wells report, the future volumes were extended along Beauregard Street to Sanger Avenue, and along Seminary Road to George Mason Drive. It was assumed, for the purpose of this analysis, that the eastbound Seminary Road left turn bay at Mark Center Drive would be separated from the through movement by a raised median. This channelization would prevent vehicles from the I-395 ramps from weaving across the roadway to reach the turn bay. Instead, vehicles originating from I-395 that are destined to Mark Center would have to access the complex from Beauregard Street.

### *Roadway Improvements*

Several scenarios were examined to evaluate future traffic conditions. Each of the scenarios includes prohibition of both southbound and northbound U-turns at the intersection of Beauregard Street and Rayburn Avenue and U-turns on northbound Beauregard at Reading Avenue. Furthermore, each scenario includes the elimination of the right turn channelization island for both the northbound Beauregard to eastbound Seminary right turn and eastbound Seminary to southbound Beauregard right turn. The scenarios include:

**Scenario 1 - The build concept as proposed by Dewberry.** This scenario has three lanes on the westbound side of Seminary Road between Mark Center Drive and Beauregard Street. At Beauregard Street, the existing double left turn is expanded to a triple left turn by the addition of left turn bay. Under this scenario, southbound Beauregard Street, between Seminary Road and Mark Center Drive, is widened from two to three lanes. The new lane becomes a left turn lane creating southbound double left turn lanes at Mark Center Drive.

<sup>1</sup> Wells & Associates, LLC. Mark Center Parcel 1A and 1B, Traffic Impact Study and Transportation Management Plan. March 2003.

**Scenario 2 - Widened Seminary Road build concept.** This scenario widens westbound Seminary Road from three lanes to four between Mark Center Drive and Beauregard Street. The cross-section of westbound Seminary Road at Beauregard Street consists of a through-right turn shared lane, a through lane, two left turn lanes (which begin at Mark Center Drive) and a left turn bay. Beauregard remains as described in Concept 1.

**Scenario 3 - Widened Beauregard Street build concept.** This scenario includes the changes to Seminary Road as described in Concept 2. In addition, southbound Beauregard Street would be widened to four lanes between Seminary Road and Mark Center Drive. The revised southbound Beauregard cross-section would consist of a through-right turn shared lane, a through lane, and two left turn lanes.

**Scenario 4 - The "Road Diet" build concept.** This expands Concept 3 as described above. Seminary Road, between Echols Avenue and Dawes Avenue, is reconfigured from a four lane cross-section with two lanes in each direction to a three lane cross-section. The three lane cross-section has one lane in each direction and the center lane is a two-way left turn lane. Because Scenario 3 has the ability to generate the most throughput on Seminary Road it is used as the base case for testing this scenario. This will result in analyzing the worse-case conditions in the segment with the two-way left turn lane.

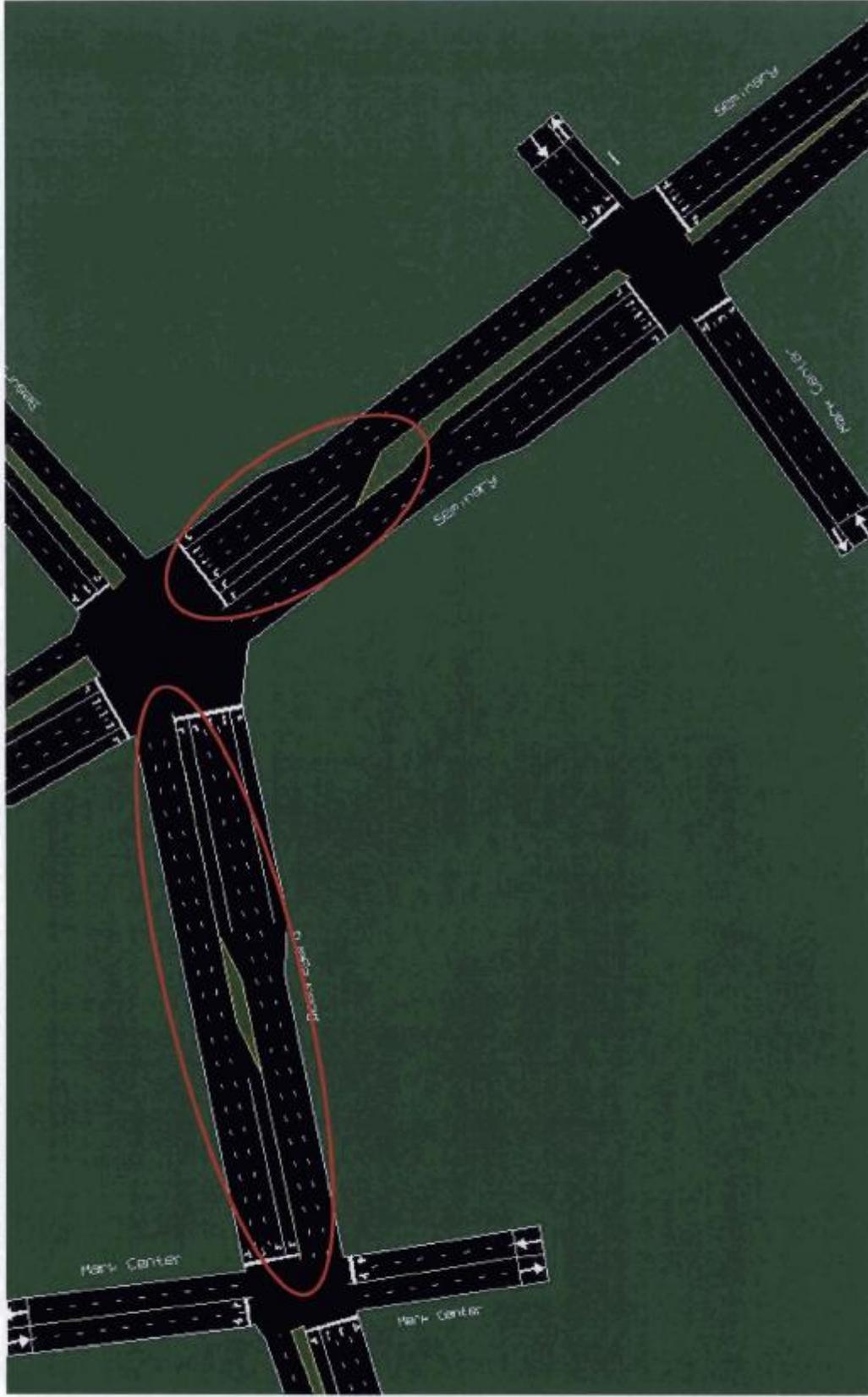


Figure 4 - Scenario 1: Add Left Turn Lanes on Westbound Seminary Road and Southbound Beauregard Street

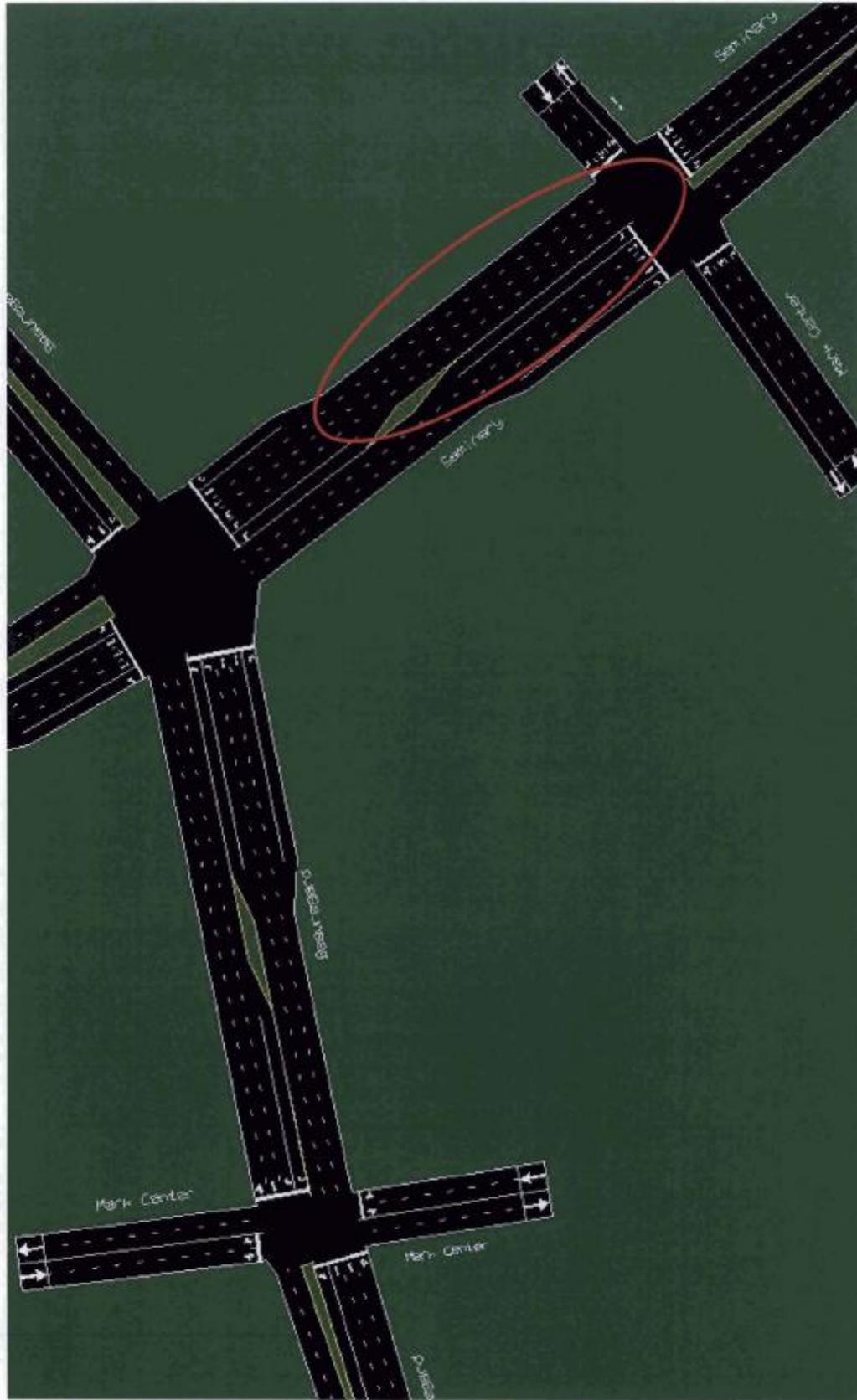
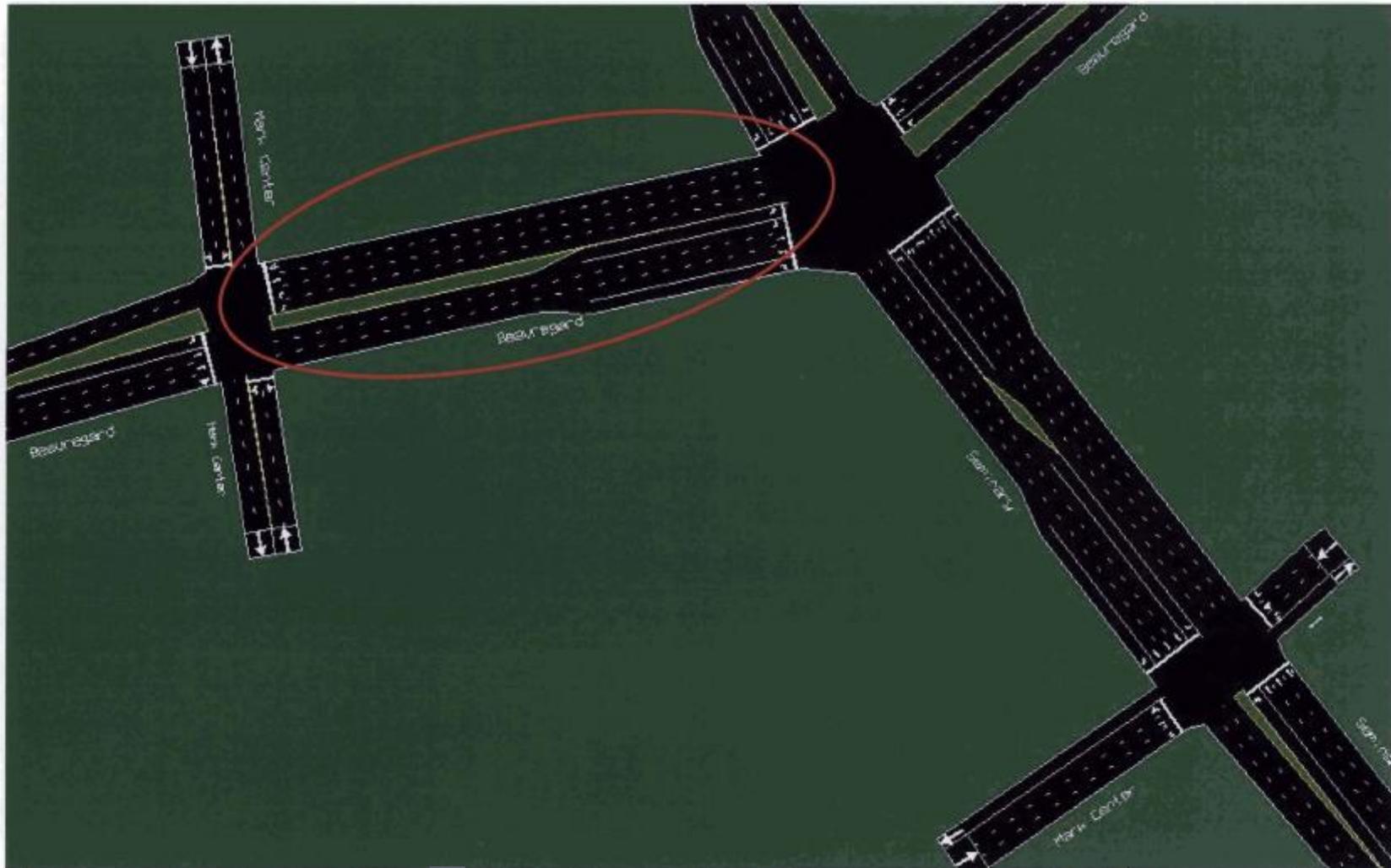


Figure 5 - Scenario 2: Widen Seminary Road between Mark Center Drive and Beauregard Street



**Scenario 3 – Widen Beauregard Street between Seminary Road and Mark Center Drive**

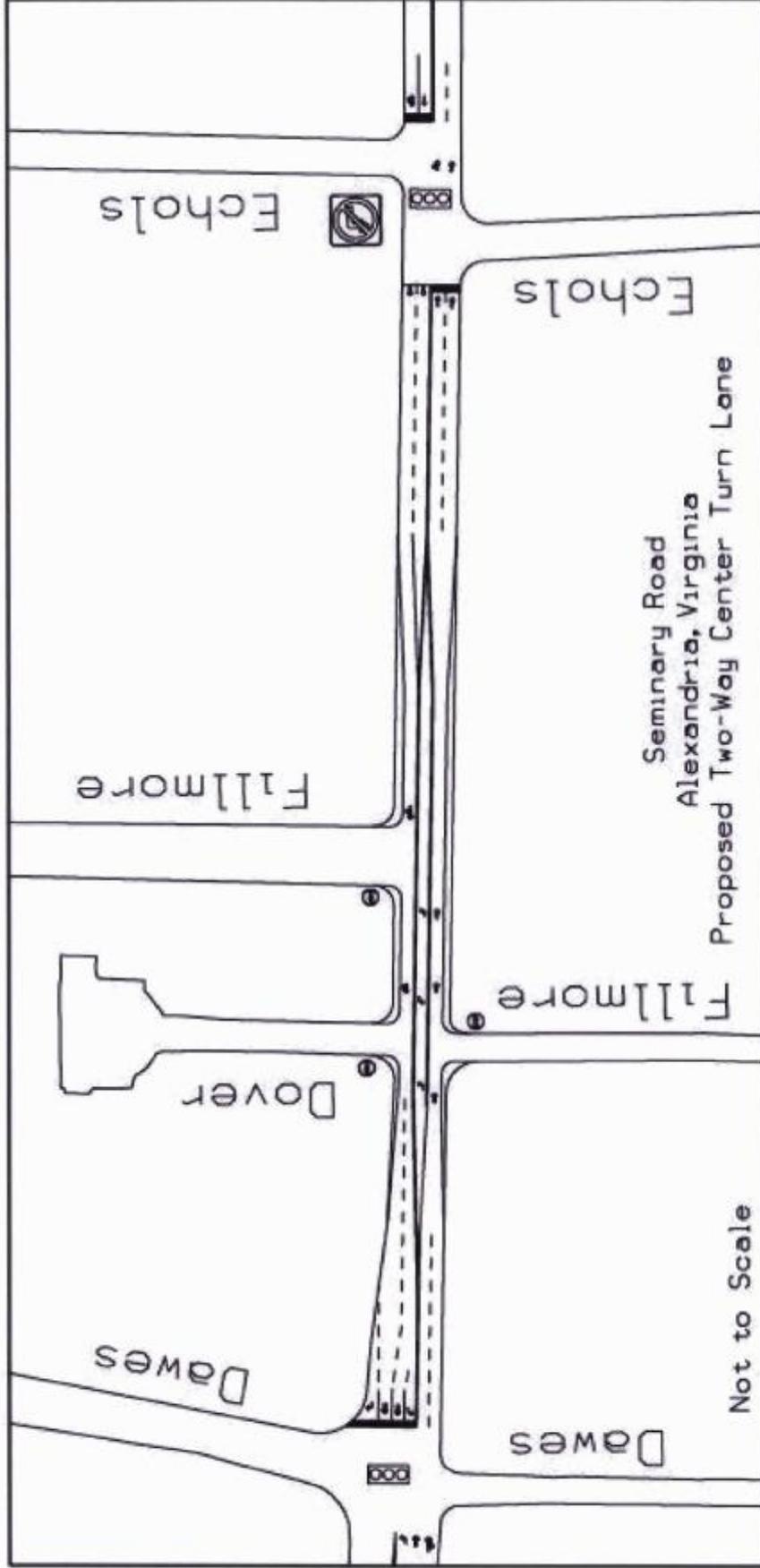


Figure 7 - Scenario 4: Seminary Road "Road Diet"

## Analyses

The Build datasets uses the Build traffic volumes from the Wells' report and the roadway configuration contained in Scenario 1 as the base condition. This represents the minimal improvements to the study area.

The signal timings and offsets for the build volumes were optimized using Synchro. Signal cycle lengths were set at 120 seconds throughout the corridor, the same cycle length used for the optimization of the existing conditions. The use of a single cycle length throughout the corridors improves signal progression. Table 6 presents the minimal improvements LOS and delay results.

**Table 6: Build Conditions with Minimal Roadway Improvements - LOS and Delays**

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Beauregard St / Sanger Ave	F	152.6	E	73.6
Beauregard St / Roanoke Ave <sup>1</sup>	A	4.9	A	1.0
Beauregard St / Reading Ave	A	7.7	A	9.7
Beauregard St / Rayburn Ave	A	7.4	B	10.4
Beauregard St / Highview Ln	A	8.3	A	5.5
Beauregard St / Mark Center Dr	D	36.4	A	5.6
Seminary Rd / Beauregard St	D	49.1	F	125.9
Seminary Rd / Fairbanks Ave <sup>1</sup>	A	0.2	C	31.8
Seminary Rd / Echols Ave	A	8.4	B	10.6
Seminary Rd / Fillmore Ave (N) <sup>1</sup>	A	0.9	A	0.7
Seminary Rd / Fillmore Ave (S) / Dover Pl <sup>1</sup>	A	1.0	C	27.1
Seminary Rd / Dawes Ave	B	11.0	D	35.6

<sup>1</sup> – Unsignalized intersection

The traffic software CORSIM was used to analyze the congested conditions at the intersections of Seminary Road at Mark Center Drive, Seminary Road at Beauregard Street, and Beauregard Street at Mark Center Drive. CORSIM is micro-simulation traffic software that can calculate throughput in congested areas. Software such as Synchro can determine the LOS of an intersection but does not determine throughput. Each scenario was executed in CORSIM to determine the throughput for each intersection approach. Tables 7 and 8 present the AM and PM peak hour throughput at these intersections.

During the AM peak hour, the traffic demand exceeds the available throughput capacity along Seminary Road at both the Beauregard Street and Mark Center Drive intersections for each of the scenarios. Along Beauregard Street, the demand exceeds the available throughput at Mark Center Drive and the northbound approach at Seminary Road for each of the scenarios. The intersection of Seminary Road and Mark Center Drive acts as a valve metering traffic flow into the study area. Widening the westbound Seminary Road between Mark Center Drive and Beauregard Street from three lanes to four lanes would improve traffic flow along Seminary Road.

**Table 7: AM Peak Hour Throughput**

ROADWAY SEGMENT	THROUGHPUT				DEMAND
	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	
<b>Seminary Road / Mark Center Drive intersection</b>					
WB Seminary Road	2,509	2,561	2,542	2,556	3,097
EB Seminary Road	1,459	1,448	1,455	1,455	1,786
NB Mark Center Drive	354	354	354	354	355
SB Mark Center Drive	408	409	408	408	409
<b>Seminary Road / Beauregard Street intersection</b>					
WB Seminary Road	2,058	2,097	2,082	2,101	2,614
EB Seminary Road	1,088	1,087	1,085	1,094	1,105
NB Beauregard Street	1,431	1,436	1,454	1,429	1,556
SB Beauregard Street	425	425	426	425	427
<b>Beauregard Street / Mark Center Drive intersection</b>					
NB Beauregard Street	1,665	1,658	1,676	1,652	1,914
SB Beauregard Street	1,447	1,461	1,451	1,493	1,856
EB Mark Center Drive	39	39	39	39	40
WB Mark Center Drive	157	157	157	156	158

**Table 8: PM Peak Hour Throughput**

ROADWAY SEGMENT	THROUGHPUT				DEMAND
	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	
<b>Seminary Road / Mark Center Drive intersection</b>					
WB Seminary Road	2,181	2,179	2,176	2,178	2,181
EB Seminary Road	2,132	2,161	2,149	2,183	2,544
NB Mark Center Drive	615	615	615	617	618
SB Mark Center Drive	255	255	255	262	279
<b>Seminary Road / Beauregard Street intersection</b>					
WB Seminary Road	1,972	1,961	1,964	1,967	2,177
EB Seminary Road	1,651	1,610	1,664	1,584	2,032
NB Beauregard Street	1,489	1,601	1,516	1,705	1,828
SB Beauregard Street	681	681	681	680	753
<b>Beauregard Street / Mark Center Drive intersection</b>					
NB Beauregard Street	969	968	969	966	1,225
SB Beauregard Street	1,834	1,815	1,827	1,725	1,959
EB Mark Center Drive	144	144	144	143	144
WB Mark Center Drive	800	946	839	1,050	1,078

Reducing the cross section along Seminary Road from four lanes to three lanes to create the two-way left turn lane (TWLTL) does not impact traffic flows at the three intersections adjacent to the Mark Center complex, nor throughput in the segment with the TWLTL.

In the PM peak hour, there are no differences in operating conditions between the first three build concepts analyzed. The heavy volume of eastbound traffic on Seminary Road accessing the I-395 ramps causes severe congestion along Seminary Road. The queue on Seminary Road would extend back to Dawes Avenue.

However, in Concept 4, the two-way left turn lane does reduce the throughput in the eastbound direction during the PM peak hour, as fewer vehicles on Seminary Road are able to reach the intersection with Beauregard Street. This reduces the traffic volume on Seminary Road east of Beauregard Street; thus, the segment between Beauregard and the split to the I-395 ramp is not as congested. Table 9 presents the throughput on the segment with the TWLTL.

**Table 9: Throughput on the TWLTL Segment of Seminary Road**

LINK SEGMENT	THROUGHPUT	DEMAND	THROUGHPUT/DEMAND RATIO
<b>AM Peak Hour</b>			
<b>Westbound Seminary Road</b>			
West of Echols Avenue	1,425	1,624	0.878
West of Dover Avenue	1,412	1,611	0.876
<b>Eastbound Seminary Road</b>			
East of Dawes Avenue	890	895	0.995
East of Fillmore Avenue	920	925	0.994
<b>PM Peak Hour</b>			
<b>Westbound Seminary Road</b>			
West of Echols Avenue	1,436	1,426	1.007
West of Dover Avenue	1,479	1,499	0.986
<b>Eastbound Seminary Road</b>			
East of Dawes Avenue	1,381	1,943	0.711
East of Fillmore Avenue	1,403	1,925	0.729

Reducing Seminary Road to one lane in each direction with a two-way left turn lane will reduce the throughput on Seminary Road. This reduction in throughput will discourage drivers from taking Seminary Road to reach points east of Beauregard Street, including I-395. However, there is concern drivers may reroute through the Dowden Terrace neighborhood, located south of Seminary Road.

Prior to the installation of a two-way left turn lane on Seminary Road, the City should perform traffic counts on selected roadways within the Dowden Terrace neighborhood. These counts can then be used to perform a before and after study in the event traffic volumes within the neighborhood appear to increase.

At the public meetings citizens expressed concern traffic would use the neighborhood streets to avoid Seminary Road. Therefore, reducing the number of through lanes on Seminary Road is not recommended at this time.

## Recommendations

A series of recommendations are being made to improve safety and mobility within the study area. The improvements are divided into two categories: short-term and mid-term improvements. The short-term improvements are strategies and concepts that could be implemented within two years. Mid-term are projects that could be implemented within five to 10 years.

**Short-term improvements** are low cost strategies that can be implemented in the immediate future. The improvements that are recommended for the study area include:

- Install No U-turn signs at the intersection of Beauregard Street and Rayburn Avenue to prohibit southbound and northbound U-turns, as well as to prohibit U-turns on northbound Beauregard at Reading Avenue. The width of the roadway on the departing legs is too narrow; this combined with the insufficient clear zone results in vehicles occasionally running over the curb and, in some instances, sideswiping a light pole.
- Relocate pedestrian pushbuttons on Beauregard Street at Rayburn Avenue onto a pushbutton pole so that mobility-impaired pedestrians may be able to access the buttons, and install missing pedestrian signal heads to provide a safe crossing for pedestrians.
- At the intersection of Beauregard Street and Highview Lane:
  - Relocate pedestrian signal heads onto pedestal poles within the channelization island so that the pedestrian signal heads are in view of pedestrians.  
Relocate pushbuttons onto pedestal poles within the channelization island so that the pushbuttons are located adjacent to the crosswalk.
  - Add the missing ADA wheelchair ramps on the west side of the intersection.
- Add missing pedestrian signal heads at the intersection of Seminary Road and Beauregard Street and replace sidewalks in poor condition to improve pedestrian safety and mobility at this intersection.
- Install pedestrian-actuated flashers for the crosswalk on Seminary Road at Fairbanks Avenue activated by pedestrian pushbuttons.
- Install missing crosswalk markings for the pedestrians crossing Seminary Road at Echols Avenue.
- Install pedestrian signal heads for the crosswalk across the south leg of Dawes Avenue for pedestrian safety.
- Install speed actuated signs and oversized speed limit signs along Seminary Road to re-enforce the speed limit.
- Install "DO NOT BLOCK INTERSECTION" signs at the intersection of Beauregard Street and the Southern Towers parking lot.
- Install overhead guide signs on the eastbound Seminary Road approach to I-395.
- Work with WMATA Metrobus staff to have:
  - Concrete pads installed between the curb and sidewalk at bus stops where they do not currently exist.
  - Bus stops relocated to the same side of the intersection as the crosswalks along Seminary Road.

- Improve signal coordination throughout the study area, including common cycle lengths for all signals, to improve progression.
- Recommend to the Virginia Department of Transportation the reconfiguration of the lane usage on the westbound approach of Seminary Road at George Mason Drive. Currently, there are three through lanes and a left turn bay. The leftmost through lane should be converted to a left turn lane. The exiting leg for this left turn movement would also need to be re-stripped to accommodate the movement.

**Mid-term improvements** may require capital investment to implement and may possibly include right-of-way (ROW) take. Recommended improvements include:

- Extend the raised median along Seminary Road from Beauregard Street to Fairbanks Avenue. This would provide a pedestrian refuge area for pedestrians crossing Seminary Road. ROW take may be required.
- Lengthen the eastbound Seminary left turn bay at Beauregard Street to provide adequate storage length for left-turning vehicles. ROW take may be required.
- Redesign the channelization islands at the intersection of Seminary Road and Beauregard Street (eastbound Seminary to southbound Beauregard and northbound Beauregard to eastbound Seminary right turns) to improve sight distance and overall intersection safety.
- Redesign the intersection of Seminary Road and Dawes Avenue to provide more space for Coke trucks to negotiate the intersection as they leave the plant.

## Appendix A – Minutes of Public Meetings

Public Meetings:

- November 30, 2004
- October 5, 2005

## Public Meeting 1

The following summarizes the issues raised at the November 17, 2004 public meeting regarding the Seminary Road / Beauregard Street Corridor(s) Traffic Study. Included within these minutes are written comments submitted by Carol Macha, one of the meeting participants.

For the purpose of this study, Seminary Road will be considered to travel east and west while Beauregard Street will travel north and south.

### Seminary Road and George Mason Dr

- Left turns at George Mason Drive cause traffic to queue along westbound Seminary Road.
- Several Vehicles were also seen making illegal left turns onto Carlin Springs Road.

### Seminary Road and Dawes Avenue

- There have been pedestrian fatalities at the Seminary Road and Dawes Avenue intersection.
- Vehicle queuing is backed up to Dawes Avenue from George Mason Drive.
- Left turns from northbound Dawes Avenue onto westbound Seminary Road are difficult due to the existing lane configuration. (i.e. – Northbound Dawes Avenue vehicles don't know if the southbound Dawes Avenue vehicle is turning left or going straight, since it is a shared through/left lane.)
- There have been collisions at the intersection of Dawes Avenue and Seminary Road.
- Speed control is needed along Dawes Avenue.

### Seminary Road and Echols Avenue

- Vehicles do not stop for traffic signal at Seminary Road and Echols Avenue.
- Vehicles speed up on Echols Avenue to make the traffic signal at Seminary Road.
- Opposing left turns along Seminary Road at Echols Avenue – vehicles get into a stalemate condition.
- Vehicles traveling westbound on Seminary Road at Echols Avenue ignore the red light and present danger to pedestrians.
- Vehicles waiting to turn left from westbound Seminary Road onto Echols Avenue create significant queues and block the leftmost westbound Seminary Road lane of traffic.
- The offset intersection and lagging left turn arrow on the westbound approach of Seminary Road cause confusion.
- The diagonal crosswalk is unsafe.

### Seminary Road and Fairbanks Avenue

- Vehicles exiting from I-395 drive aggressively and speed is a problem in this area. There are many collisions at this intersection, including a car that ran into a house near the corner of Fairbanks Avenue and Seminary Road.

### **Seminary Road and I-395**

- There is significant vehicle weaving along westbound Seminary Road between I-395 and Beauregard Street from traffic exiting off I-395.
- Vehicles exiting I-395 have difficulty changing lanes to make a left turn onto southbound Beauregard Street due to the short weaving section.
- Traffic from I-395 is using Seminary Road as alternate to Route 7 (which is generally congested).

### **Seminary Road and Beauregard Street**

- Vehicles in the eastbound through lanes along Seminary Road queue (or spill over), blocking the right turn slip ramp onto southbound Beauregard Street.
- Left turn signal phasing is insufficient for vehicles turning left from northbound Beauregard Street onto westbound Seminary Road. There are frequently 20 to 30 vehicles queuing in the left turn lanes. As a result, vehicles are still proceeding through the signal after it has turned red.
- Rear end collisions are occurring in the free-flow right turn lane(s) at the intersection.

### **Southern Towers and Beauregard Street**

- The parking lot for Southern Towers is part of the Metro bus route. Buses and vehicles are making unsafe left turns onto southbound Beauregard Street. This intersection is unsignalized and the nose of the island median along Beauregard Street makes these left turns very difficult.

### **Beauregard Street and Sanger Avenue**

- Signal phasing at Sanger Avenue needs improvement; phases are too short. Vehicles attempting to turn left from nearby Morgan Court onto northbound Beauregard Street frequently wait two to three cycle lengths.
- Signal timings are worse during school hours and on weekends.

### **In general along Beauregard Street and Seminary Road or in the residential areas**

- Vehicles attempting to make U-turns along northbound Beauregard Street at Reading Avenue and Rayburn Avenue are getting stuck due to lack of turning width clearance.
- Detectors for side streets near Clyde's and Mark Center are malfunctioning; consequently, these phases are being called regardless of traffic demand.
- The left turn signals along northbound and southbound Beauregard Street are always being called whether vehicles are present or not.
- There is too much traffic coming from I-395 using Beauregard Street as a detour to Little River Turnpike.
- Traffic signal progression along Beauregard Street needs improvement.
- Pedestrian accessibility needs improvement along Beauregard Street. All corners need pedestrian signals and all streets should have adequate street signs. Also, every intersection should have crosswalks.
- Handicap accessibility needs improvement.
- Speed control and traffic calming is needed along Fillmore Avenue, Dawes Avenue, and Rosser Avenue.

- Residents living on Stevens Street want turn lanes added. Stevens Street is frequently used as a cut-through in lieu of Seminary Road; speed control along Stevens Street is also a problem, yet residents do not want speed bumps.
- Due to aggressive drivers, the speed limit along Seminary Road needs to be lowered from 35 mph to 25 mph. There is a problem with vehicles speeding even in off peak hours.
- There is a high volume of left turns along westbound and eastbound Seminary Road.
- Additional bus turn outs are needed along Seminary Road and Beauregard Street. Current bus stop locations should be reviewed for effectiveness.
- Trucks from the Coca Cola plant need to stop using Seminary Road, as they present traffic problems. It was mentioned that trucks are required to take Dawes Avenue to Route 7, but this is not enforced.
- There may be a new plant (Missile Defense Agency) in the area in the long-term future and the potential impact of new traffic patterns needs to be studied.
- Implicit – Proposed changes to the intersection of Beauregard Street and Seminary Road which have been identified and approved as part of previous studies, need to be a part of this study.

At the conclusion of the public meeting, citizens were asked to rank issues in one of three categories: low, medium, or high. The results are shown in Table 1. The number adjacent to the issue represents its overall rank. For example, "Speeding along Seminary Road during off-peak hours" and "Capacity improvements may be needed at Route 7/I-395 interchange to discourage early exiting from I-395" were both a high categorical ranking, with both considered the highest rank of importance as a number one.

Overall Ranking	Table 1 Issues	Category Ranking
		High
1	Speeding along Seminary Road during off-peak hours	11
1	Capacity improvements may be needed at Rte. 7 /I-395 interchange to discourage early exiting onto Seminary Road from I-395	11
2	Trucks exiting the Coke Plant -additional congestion	10
2	Handicap accessibility across both Beauregard & Seminary	10
3	Weaving between I-395 & Seminary / Beauregard	9
3	Lagging left turn at Echols in the WB direction of Seminary	9
3	Signal improvements (lack of progression) along Beauregard	9
3	Serious congestion at Beauregard & Sanger particularly during school hours & weekends	9
3	Signal along Beauregard - revisit phase sequencing regarding left turns	9
4	Single left turn lane at George Mason (motorists making illegal left turns)	8
4	Revisit lane striping along WB Seminary between I-395 & Beauregard	8
4	Red light running EB Beauregard left turns onto Seminary Road	8
4	Traffic Calming along Dawes, Rosser and Fillmore	8
5	Traffic Signal Issues at Seminary & Echols	7
5	U turns along Beauregard/ Reading & Rayburn do not have enough lateral clearance	7
6	Bus pull outs along Seminary & Beauregard	6
7	Consider NB Seminary flyover from 2 lanes to 1 lane	5
8	Red light running at Echols	4
		Medium
9	Revised Bus stop locations	9
10	Collisions & red light running at Dawes & Seminary	8
11	Provide Turn Lanes along Seminary Road	7
11	Opposing Seminary Road left turns at Echol - stalemate	7
11	Rear end collisions at free flow right turns from EB Seminary Road onto SB Beauregard	7
11	Changing lane configuration on Dawes at Seminary	7
11	EB Seminary Road left turns at Beauregard cannot turn left due to thru traffic blocking lane	7
12	EB Seminary Road right turns at Beauregard cannot turn right due to thru traffic overflow	6
12	Speed Regulation / Traffic Calming on Echols EB	6
12	SB Seminary Road right turns at Beauregard cannot turn right due to thru traffic overflow	6
12	Left turn provisions along NB & SB Seminary Road	6
12	Left turns from Southern Towers onto WB Beauregard	6
13	Pedestrian accessibility along Beauregard	5
		Low
14	Crosswalk at Echols not properly aligned	8

## Public Meeting 2

Wilbur Smith Associates, in conjunction with City staff, conducted a public meeting on the evening of October 5, 2005 at John Adams School. A brief project presentation was provided, describing the goals of the study and previous issues raised at the first public meeting held in November 2004. Everyone received a copy of the priority list developed by the citizens group at the first public meeting, along with information about the accident history along the corridors. Numerous display boards were used to discuss issues and potential solutions. The primary goal of the meeting was to gather feedback from the public regarding our preliminary findings and potential solutions.

The following is a brief summary of some of the key discussions and information exchanged at the public meeting regarding the Seminary Road / Beauregard Street Corridor(s) Traffic Study. Preliminary findings were presented along with potential improvements to address previously raised concerns. Included within these minutes is a sketch of a concept discussed at the meeting. For the purpose of this study, Seminary Road will be considered to travel east and west while Beauregard Street will travel north and south.

### Beauregard Street and Sanger Avenue

- Changing the pedestrian walk signal to go with traffic rather than as a separate phase was presented. Pedestrians crossing Sanger would get a walk signal when the Beauregard traffic has a green light; pedestrians crossing Beauregard would get a walk signal when Sanger traffic has a green light. Currently all traffic is stopped when pedestrians cross.
- Right turning vehicles from westbound Sanger approach onto northbound Beauregard was identified as an issue. People cut through the adjacent parking lot of the apartment building to avoid waiting in the right turn queue. The possibility of removing the "NO TURN ON RED" sign will be examined.

### Beauregard Street and Reading Avenue

- The prohibition of U-turns on Beauregard at the Beauregard / Reading Avenue intersection was presented. Several people identified the need to allow U-turns on the southbound Beauregard approach to accommodate drivers leaving the shopping center and wishing to go north on Beauregard. Changing the southbound left turn signal from a protected / permissive signal (left turn traffic gets a green arrow, but can also turn on a solid green) to a protected only (left turn traffic can only turn on the green arrow) was suggested as a possible compromise. Accident data and the physical characteristics of this intersection will be further reviewed prior to any final decision.

### Beauregard Street and Rayburn Avenue

- The prohibition of U-turns on Beauregard at the Beauregard / Rayburn Avenue intersection was presented. No objection to this restriction was presented.

### **Seminary Road and Beauregard Street**

- There are two northbound left turn lanes at this location. One is a left turn bay, and the other is a through lane at the previous intersection which becomes a left turn only lane at Seminary Road. The left turn lanes are not long enough to accommodate all the left turn volume. The queue in left turn lane 2 (the through lane from the previous intersection) limits the ability of left turners to get into the turn bay. The result is that the left turn bay is underutilized. Solutions will be investigated.
- The northbound Beauregard free-flow right turn lane is a problem due to the short distance between where the ramp ends and where the right lane must turn right into Mark Center Drive. Drivers must change lanes to continue on Seminary Road, creating a weaving problem. Eliminating the sweeping right turn lane and moving the turn lane closer to the actual intersection as a more typical right turn lane was presented to the group.
- The eastbound Seminary Road right turn onto southbound Beauregard has a large number of rear-end collisions. It is believed this is caused by the extreme angle with which the ramp intersects Beauregard Street and the difficulty drivers have in watching both the vehicles in front of them and oncoming traffic. The elimination of this sweeping right turn lane and bringing the right turn lane to the intersection in a more traditional configuration was also presented to the group. Care must be exercised to preserve adequate design to accommodate the future widening of southbound Beauregard Street.
- The future intersection improvement plans will provide pedestrians along the north side of the intersection a pedestrian island as a refuge area as they cross Beauregard.
- Questions were raised regarding the triple left turn lanes from the westbound Seminary approach onto southbound Beauregard and how traffic would be adequately accommodated to make additional southbound Beauregard left turns onto eastbound Mark Center Drive. It was stated that this operation was evaluated under another study and that the ultimate design was already determined based on the previous study and not this study.

### **Seminary Road and Fairbanks Avenue**

- The installation of flashing lights above the existing pedestrian crossing sign was proposed. The lights would be actuated by a pedestrian pushbutton to be located at the existing crosswalk. There was also discussion of the possibility of extending the raised median from Beauregard to Fairbanks Avenue, thereby providing a pedestrian refuge at the intersection.

### **Seminary Road and Echols Avenue**

- Recent intersection design/operational changes have been made by the City to improve the safety and operation at this location, including the removal of the diagonal crosswalk. These recent signal timing changes and additional signing should improve the overall intersection safety and performance.
- The constraints at this location were described and the operational difficulties and safety aspects associated with this offset intersection were discussed. Most seemed to understand the issues associated with this intersection.

### **Seminary Road and Dawes Avenue**

- A large number of angle accidents occur at the westbound left turn from Seminary Road onto Dawes Avenue. Review of the accident data showed a number of these accidents were caused by drivers in the leftmost through lane waving the left turn driver through the intersection only to have the left turner struck by a through vehicle in the right hand through lane. It was recommended that the Seminary Road left turn be changed from a protected / permissive left (left turn traffic gets a green arrow, but can also turn on a solid green) to a protected only (left turn traffic can only turn on the green arrow).
- The Dawes Avenue approaches to the intersection were discussed. During the first public meeting, it was noted that drivers on the northbound Dawes Avenue approach (neighborhood side) could not tell whether drivers on the southbound approach (Coke plant side) were turning left or going straight. Changing the signal phasing for Dawes Avenue to a split phase (one side of Dawes goes, then the other side goes) was discussed. The possibility of changing the lane configuration on the Dawes Avenue southbound approach to the intersection was also discussed. It was noted that changing from the existing left / through right turn lane to a left turn only lane with a through / right lane may not be advisable due to heavy southbound right turn demand. This issue will under go further review.

### **Seminary Road in General**

- Speeding along Seminary Road was identified as an issue at the first Public Meeting. Recommendations to address this issue include the installation of additional speed limits signs, including some oversized (36" wide by 48" high) signs (Speed limit signs are typically 24" wide by 30" high). Also, the potential installation of speed display signs was discussed. These signs display your speed as you approach the sign.
- There are numerous rear-end collisions and accidents along the section of Seminary Road between Beauregard Street and Dawes Avenue. A number of these are due to the lack of left turn lanes along Seminary Road. A concept for installing a center two-way left turn lane with one through lane in each direction between Echols and Dawes was presented. This change in configuration is expected to slow through traffic and allow left turn vehicles a safe place to wait while making a left turn. This configuration may also require additional neighborhood traffic calming measures to mitigate an expected increase in traffic attempting to cut through the surrounding neighborhoods. Some concern with this scenario was expressed, with some present stating they would rather see more traffic being pushed through the corridor rather than attempting to slow traffic along Seminary Road. However, when asked most were not in favor of future widening of Seminary Road.
- Citizens asked if the Coke plant could consider changing their truck departure schedule or routes to reduce the truck noise during typical sleep time. Currently, trucks roll out primarily from 4:30 – 7:30 AM. The city staff indicated that the Coke plant has been very cooperative with this study effort and wants to work with the community. Staff will further discuss the matter with Coke plant management. A question was raised, wondering if the Coke plant truck traffic contributed to accidents. No data supports this concern.

At the conclusion of the public meeting, everyone seemed pleased with the study efforts to date.

## Appendix B – Turning Movement Counts

### Turning Movement Counts

- Seminary Road / George Mason Drive
- Seminary Road / Colfax Avenue
- Seminary Road / Dawes Avenue
- Seminary Road / Filmore Avenue / Dover Place
- Seminary Road / Filmore Avenue
- Seminary Road / Echols Avenue
- Seminary Road / Fairbanks Avenue
- Seminary Road / Beauregard Street
- Seminary Road / Mark Center Drive
- Beauregard Street / Mark Center Drive
- Beauregard Street / Highview Lane
- Beauregard Street / Rayburn Avenue
- Beauregard Street / Reading Avenue
- Beauregard Street / Roanoke Avenue
- Beauregard Street / Sanger Avenue

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	40035	Weather	Light rain
Project Site Number	1	Pavement	Wet
Site Name	Seminary Rd / G. Mason Dr.	Latitude	N 38:50.455
Location	Alexandria, VA	Longitude	W 77:07.267
Survey Date	Thu, 06 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NEB Bearing: 40	07:00 - 07:15	141	144	1	0	286	4%		
	07:15 - 07:30	166	141	0	0	307	2%		
	07:30 - 07:45	193	203	1	0	397	3%		
	07:45 - 08:00	164	204	2	0	370	1%		
	Total	664	692	4	0	1,360	2%	703	2,063
	Peak Hour Factor	0.86	0.85	0.50	0.00	0.86			
% Trucks	2%	3%	0%	0%	2%				
Approach 2 S. George Mason Dr. SEB Bearing: 145	07:00 - 07:15	33	5	96	0	134	5%		
	07:15 - 07:30	32	5	130	0	167	3%		
	07:30 - 07:45	28	1	110	0	139	1%		
	07:45 - 08:00	39	6	159	1	205	3%		
	Total	132	17	495	1	645	3%	743	1,388
	Peak Hour Factor	0.85	0.71	0.78	0.25	0.79			
% Trucks	4%	6%	3%	0%	3%				
Approach 3 Seminary WB Bearing: 270	07:00 - 07:15	0	47	19	0	66	6%		
	07:15 - 07:30	3	49	14	0	66	8%		
	07:30 - 07:45	2	39	19	1	61	7%		
	07:45 - 08:00	1	53	16	0	70	4%		
	Total	6	188	68	1	263	6%	841	1,104
	Peak Hour Factor	0.50	0.89	0.89	0.25	0.94			
% Trucks	0%	5%	9%	0%	6%				
Approach 4 Shopping Center NWB Bearing: 310	07:00 - 07:15	4	2	3	0	9	0%		
	07:15 - 07:30	6	2	2	0	10	0%		
	07:30 - 07:45	5	4	6	0	15	7%		
	07:45 - 08:00	5	2	5	0	12	0%		
	Total	20	10	16	0	46	2%	27	73
	Peak Hour Factor	0.83	0.63	0.67	0.00	0.77			
% Trucks	5%	0%	0%	0%	2%				
Total Intersection	07:00 - 07:15	178	198	119	0	495	4%		
	07:15 - 07:30	207	197	146	0	550	3%		
	07:30 - 07:45	228	247	136	1	612	3%		
	07:45 - 08:00	209	265	182	1	657	2%		
	Total	822	907	583	2	2,314	3%		
	Peak Hour Factor	0.90	0.86	0.80	0.50	0.88			
% Trucks	2%	3%	3%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	40035	Weather	Light rain
Project Site Number	1	Pavement	Wet
Site Name	Seminary Rd / G. Mason Dr.	Latitude	N 38:50.455
Location	Alexandria, VA	Longitude	W 77:07.267
Survey Date	Thu, 06 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NEB Bearing: 40	17:00 - 17:15	123	97	1	0	221	2%		
	17:15 - 17:30	121	116	3	0	240	4%		
	17:30 - 17:45	127	115	6	0	248	1%		
	17:45 - 18:00	121	101	4	0	226	3%		
	Total	492	429	14	0	935	2%	1,799	2,734
	Peak Hour Factor	0.97	0.92	0.58	0.00	0.94			
	% Trucks	2%	2%	0%	0%	2%			
Approach 2 S. George Mason Dr. SEB Bearing: 145	17:00 - 17:15	16	20	217	0	253	2%		
	17:15 - 17:30	21	10	234	0	265	1%		
	17:30 - 17:45	26	13	221	1	261	2%		
	17:45 - 18:00	18	10	236	0	264	1%		
	Total	81	53	908	1	1,043	1%	859	1,902
	Peak Hour Factor	0.78	0.66	0.96	0.25	0.98			
	% Trucks	5%	2%	1%	0%	1%			
Approach 3 Seminary WB Bearing: 270	17:00 - 17:15	15	218	88	0	321	2%		
	17:15 - 17:30	16	193	63	0	272	1%		
	17:30 - 17:45	18	202	93	3	316	2%		
	17:45 - 18:00	24	179	60	1	264	2%		
	Total	73	792	304	4	1,173	2%	527	1,700
	Peak Hour Factor	0.76	0.91	0.82	0.33	0.91			
	% Trucks	0%	2%	2%	0%	2%			
Approach 4 Shopping Center NWB Bearing: 310	17:00 - 17:15	29	16	4	0	49	0%		
	17:15 - 17:30	27	21	2	0	50	0%		
	17:30 - 17:45	24	12	5	0	41	0%		
	17:45 - 18:00	19	13	2	0	34	0%		
	Total	99	62	13	0	174	0%	140	314
	Peak Hour Factor	0.85	0.74	0.65	0.00	0.87			
	% Trucks	0%	0%	0%	0%	0%			
Total Intersection	17:00 - 17:15	183	351	310	0	844	2%		
	17:15 - 17:30	185	340	302	0	827	2%		
	17:30 - 17:45	195	342	325	4	866	1%		
	17:45 - 18:00	182	303	302	1	788	2%		
	Total	745	1,336	1,239	5	3,325	2%		
	Peak Hour Factor	0.96	0.95	0.95	0.31	0.96			
	% Trucks	2%	2%	1%	0%	2%			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40036_SeminaryColfax_Wkd	Weather	Light rain
Client Site Number	2	Pavement	Wet
Site Name	Seminary Rd & Colfax Ave	Latitude	N38:50.404
Location	Alexandria, VA	Longitude	W77:07.290
Survey Date	Thu 01/06/05	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary Rd SB Bearing: 190	07:00 - 07:15	0	145	4	0	149	5%		
	07:15 - 07:30	0	187	1	0	188	3%		
	07:30 - 07:45	0	157	1	0	158	3%		
	07:45 - 08:00	0	218	1	0	219	4%		
	Total	0	707	7	0	714	4%	1,361	2,075
	Peak Hour Factor	0.00	0.81	0.44	0.00	0.82			
	% Trucks	0%	4%	14%	0%	4%			
Approach 2 Shopping Ctr Entr. WB Bearing: 270	07:00 - 07:15	0	0	0	0	0	0%		
	07:15 - 07:30	0	0	0	0	0	0%		
	07:30 - 07:45	0	0	1	0	1	0%		
	07:45 - 08:00	0	0	0	0	0	0%		
	Total	0	0	1	0	1	0%	24	25
	Peak Hour Factor	0.00	0.00	0.25	0.00	0.25			
	% Trucks	0%	0%	0%	0%	0%			
Approach 3 Seminary Rd NB Bearing: 355	07:00 - 07:15	0	292	6	0	298	2%		
	07:15 - 07:30	0	310	6	0	316	2%		
	07:30 - 07:45	0	372	7	0	379	3%		
	07:45 - 08:00	0	386	5	0	391	1%		
	Total	0	1,360	24	0	1,384	2%	737	2,121
	Peak Hour Factor	0.00	0.88	0.86	0.00	0.88			
	% Trucks	0%	2%	0%	0%	2%			
Approach 4 Colfax EB Bearing: 80	07:00 - 07:15	0	0	3	0	3	0%		
	07:15 - 07:30	0	0	4	0	4	0%		
	07:30 - 07:45	0	0	11	0	11	0%		
	07:45 - 08:00	0	0	12	0	12	0%		
	Total	0	0	30	0	30	0%	7	37
	Peak Hour Factor	0.00	0.00	0.63	0.00	0.63			
	% Trucks	0%	0%	0%	0%	0%			
Total Intersection	07:00 - 07:15	0	437	13	0	450	3%		
	07:15 - 07:30	0	497	11	0	508	2%		
	07:30 - 07:45	0	529	20	0	549	3%		
	07:45 - 08:00	0	604	18	0	622	2%		
	Total	0	2,067	62	0	2,129	3%		
	Peak Hour Factor	0.00	0.86	0.77	0.00	0.86			
	% Trucks	0%	3%	2%	0%	3%			

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40036_SeminaryColfax_Wkd	Weather	Light rain
Client Site Number	2	Pavement	Wet
Site Name	Seminary Rd & Colfax Ave	Latitude	N38:50.404
Location	Alexandria, VA	Longitude	W77:07.290
Survey Date	Thu 01/06/05	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary Rd SB Bearing: 190	17:00 - 17:15	0	446	8	0	454	1%		
	17:15 - 17:30	0	458	2	0	460	1%		
	17:30 - 17:45	0	427	10	0	437	1%		
	17:45 - 18:00	0	411	6	0	417	1%		
	Total	0	1,742	26	0	1,768	1%	948	2,716
	Peak Hour Factor	0.00	0.95	0.65	0.00	0.96			
	% Trucks	0%	1%	4%	0%	1%			
Approach 2 Shopping Ctr Entr. WB Bearing: 270	17:00 - 17:15	0	0	0	0	0	0%		
	17:15 - 17:30	0	0	0	0	0	0%		
	17:30 - 17:45	0	0	3	0	3	0%		
	17:45 - 18:00	0	0	1	0	1	0%		
	Total	0	0	4	0	4	0%	142	146
	Peak Hour Factor	0.00	0.00	0.33	0.00	0.33			
	% Trucks	0%	0%	0%	0%	0%			
Approach 3 Seminary Rd NB Bearing: 355	17:00 - 17:15	0	246	37	0	283	2%		
	17:15 - 17:30	0	246	43	0	289	2%		
	17:30 - 17:45	0	228	22	0	250	2%		
	17:45 - 18:00	0	224	40	0	264	2%		
	Total	0	944	142	0	1,086	2%	1,754	2,840
	Peak Hour Factor	0.00	0.96	0.83	0.00	0.94			
	% Trucks	0%	2%	1%	0%	2%			
Approach 4 Colfax EB Bearing: 80	17:00 - 17:15	0	0	3	0	3	0%		
	17:15 - 17:30	0	0	2	0	2	0%		
	17:30 - 17:45	0	0	4	0	4	0%		
	17:45 - 18:00	0	0	3	0	3	0%		
	Total	0	0	12	0	12	0%	26	38
	Peak Hour Factor	0.00	0.00	0.75	0.00	0.75			
	% Trucks	0%	0%	0%	0%	0%			
Total Intersection	17:00 - 17:15	0	692	48	0	740	1%		
	17:15 - 17:30	0	704	47	0	751	1%		
	17:30 - 17:45	0	655	39	0	694	1%		
	17:45 - 18:00	0	635	50	0	685	2%		
	Total	0	2,686	184	0	2,870	1%		
	Peak Hour Factor	0.00	0.95	0.92	0.00	0.96			
	% Trucks	0%	1%	1%	0%	1%			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40037	Weather	Light Rain
Client Site Number	3	Pavement	Wet
Site Name	Seminary Dawes	Latitude	N 38:50.431
Location	Alexandria, VA	Longitude	W 77:07.225
Survey Date	Thu, 06 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NB Bearing: 350	07:00 - 07:15	11	288	9	0	308	2%		
	07:15 - 07:30	10	329	9	0	348	1%		
	07:30 - 07:45	11	363	10	0	384	2%		
	07:45 - 08:00	8	360	9	0	377	1%		
	Total	40	1,340	37	0	1,417	2%	793	2,210
	Peak Hour Factor	0.91	0.92	0.93	0.00	0.92			
% Trucks	3%	2%	5%	0%	2%				
Approach 2 Dawes EB Bearing: 75	07:00 - 07:15	6	0	10	0	16	0%		
	07:15 - 07:30	2	3	10	0	15	0%		
	07:30 - 07:45	7	2	11	0	20	0%		
	07:45 - 08:00	7	5	15	0	27	4%		
	Total	22	10	46	0	78	1%	50	128
	Peak Hour Factor	0.79	0.50	0.77	0.00	0.72			
% Trucks	0%	10%	0%	0%	1%				
Approach 3 Seminary SB Bearing: 165	07:00 - 07:15	2	148	0	0	150	5%		
	07:15 - 07:30	3	183	2	0	188	3%		
	07:30 - 07:45	5	173	1	1	180	3%		
	07:45 - 08:00	8	215	0	0	223	4%		
	Total	18	719	3	1	741	4%	1,381	2,122
	Peak Hour Factor	0.56	0.84	0.38	0.25	0.83			
% Trucks	6%	4%	0%	0%	4%				
Approach 4 Dawes WB Bearing: 280	07:00 - 07:15	4	0	5	0	9	33%		
	07:15 - 07:30	8	1	8	0	17	59%		
	07:30 - 07:45	7	2	3	0	12	67%		
	07:45 - 08:00	9	4	2	0	15	13%		
	Total	28	7	18	0	53	43%	65	118
	Peak Hour Factor	0.78	0.44	0.56	0.00	0.78			
% Trucks	61%	0%	33%	0%	43%				
Total Intersection	07:00 - 07:15	23	436	24	0	483	4%		
	07:15 - 07:30	23	516	29	0	568	4%		
	07:30 - 07:45	30	540	25	1	596	4%		
	07:45 - 08:00	32	584	26	0	642	2%		
	Total	108	2,076	104	1	2,289	3%		
	Peak Hour Factor	0.84	0.89	0.90	0.25	0.89			
% Trucks	18%	2%	8%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40037	Weather	Light Rain
Client Site Number	3	Pavement	Wet
Site Name	Seminary Dawes	Latitude	N 38:50.431
Location	Alexandria, VA	Longitude	W 77:07.225
Survey Date	Thu, 06 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NB Bearing: 350	17:00 - 17:15	21	257	5	0	283	2%		
	17:15 - 17:30	22	262	12	1	297	2%		
	17:30 - 17:45	31	240	13	0	284	2%		
	17:45 - 18:00	30	239	13	0	282	2%		
	Total	104	998	43	1	1,146	2%	1,835	2,981
	Peak Hour Factor	0.84	0.95	0.83	0.25	0.96			
% Trucks	0%	2%	9%	0%	2%				
Approach 2 Dawes EB Bearing: 75	17:00 - 17:15	2	3	8	0	13	0%		
	17:15 - 17:30	4	4	6	0	14	7%		
	17:30 - 17:45	3	0	3	0	6	0%		
	17:45 - 18:00	4	1	4	0	9	0%		
	Total	13	8	21	0	42	2%	147	189
	Peak Hour Factor	0.81	0.50	0.66	0.00	0.75			
% Trucks	0%	0%	5%	0%	2%				
Approach 3 Seminary SB Bearing: 165	17:00 - 17:15	6	465	1	1	473	1%		
	17:15 - 17:30	12	417	2	0	431	1%		
	17:30 - 17:45	7	436	4	0	447	1%		
	17:45 - 18:00	4	419	1	1	425	1%		
	Total	29	1,737	8	2	1,776	1%	1,067	2,843
	Peak Hour Factor	0.60	0.93	0.50	0.50	0.94			
% Trucks	0%	1%	0%	0%	1%				
Approach 4 Dawes WB Bearing: 280	17:00 - 17:15	26	4	14	0	44	2%		
	17:15 - 17:30	27	19	20	0	66	2%		
	17:30 - 17:45	15	8	10	0	33	0%		
	17:45 - 18:00	8	4	10	0	22	0%		
	Total	76	35	54	0	165	1%	80	245
	Peak Hour Factor	0.70	0.46	0.68	0.00	0.63			
% Trucks	3%	0%	0%	0%	1%				
Total Intersection	17:00 - 17:15	55	729	28	1	813	1%		
	17:15 - 17:30	65	702	40	1	808	2%		
	17:30 - 17:45	56	684	30	0	770	2%		
	17:45 - 18:00	46	663	28	1	738	1%		
	Total	222	2,778	126	3	3,129	2%		
	Peak Hour Factor	0.85	0.95	0.79	0.75	0.96			
% Trucks	1%	1%	4%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40038	Weather	Light rain
Client Site Number	4	Pavement	Wet
Site Name	Seminary Rd / Fillmore Ave / Dov	Latitude	N38:50.282
Location	Alexandria, VA	Longitude	W77:07.237
Survey Date	Fri, 07 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary SB Bearing: 165	07:00 - 07:15	0	168	0	0	168	5%		
	07:15 - 07:30	0	194	1	0	195	7%		
	07:30 - 07:45	0	181	1	0	182	5%		
	07:45 - 08:00	0	244	0	0	244	5%		
	Total	0	787	2	0	789	6%	1,404	2,193
	Peak Hour Factor	0.00	0.81	0.50	0.00	0.81			
% Trucks	0%	6%	0%	0%	6%				
Approach 2 Dover WB Bearing: 260	07:00 - 07:15	0	0	0	0	0	0%		
	07:15 - 07:30	1	0	0	0	1	0%		
	07:30 - 07:45	1	0	1	0	2	0%		
	07:45 - 08:00	2	0	0	0	2	0%		
	Total	4	0	1	0	5	0%	2	7
	Peak Hour Factor	0.50	0.00	0.25	0.00	0.63			
% Trucks	0%	0%	0%	0%	0%				
Approach 3 Seminary NB Bearing: 340	07:00 - 07:15	6	300	0	0	306	3%		
	07:15 - 07:30	6	351	1	0	358	1%		
	07:30 - 07:45	6	375	1	0	382	3%		
	07:45 - 08:00	9	376	0	0	385	1%		
	Total	27	1,402	2	0	1,431	2%	837	2,268
	Peak Hour Factor	0.75	0.93	0.50	0.00	0.93			
% Trucks	11%	2%	0%	0%	2%				
Approach 4 Fillmore EB Bearing: 80	07:00 - 07:15	0	0	8	0	8	13%		
	07:15 - 07:30	1	0	8	0	9	0%		
	07:30 - 07:45	0	0	14	0	14	0%		
	07:45 - 08:00	0	0	16	0	16	0%		
	Total	1	0	46	0	47	2%	29	76
	Peak Hour Factor	0.25	0.00	0.72	0.00	0.73			
% Trucks	0%	0%	2%	0%	2%				
Total Intersection	07:00 - 07:15	6	468	8	0	482	4%		
	07:15 - 07:30	8	545	10	0	563	3%		
	07:30 - 07:45	7	556	17	0	580	3%		
	07:45 - 08:00	11	620	16	0	647	3%		
	Total	32	2,189	51	0	2,272	3%		
	Peak Hour Factor	0.73	0.88	0.75	0.00	0.88			
% Trucks	9%	3%	2%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40038	Weather	Light rain
Client Site Number	4	Pavement	Wet
Site Name	Seminary Rd / Fillmore Ave / Dow	Latitude	N38:50.282
Location	Alexandria, VA	Longitude	W77:07.237
Survey Date	Fri, 07 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary SB Bearing: 165	17:00 - 17:15	0	475	1	0	476	1%		
	17:15 - 17:30	1	461	3	0	465	1%		
	17:30 - 17:45	1	449	2	0	452	1%		
	17:45 - 18:00	0	432	2	0	434	1%		
	Total	2	1,817	8	0	1,827	1%	1,140	2,967
	Peak Hour Factor	0.50	0.96	0.67	0.00	0.96			
	% Trucks	0%	1%	0%	0%	1%			
Approach 2 Dover WB Bearing: 260	17:00 - 17:15	0	0	0	0	0	0%		
	17:15 - 17:30	0	0	1	0	1	0%		
	17:30 - 17:45	0	0	0	0	0	0%		
	17:45 - 18:00	0	0	1	0	1	0%		
	Total	0	0	2	0	2	0%	4	6
	Peak Hour Factor	0.00	0.00	0.50	0.00	0.50			
	% Trucks	0%	0%	0%	0%	0%			
Approach 3 Seminary NB Bearing: 340	17:00 - 17:15	20	279	0	0	299	2%		
	17:15 - 17:30	13	303	0	0	316	2%		
	17:30 - 17:45	14	275	1	0	290	2%		
	17:45 - 18:00	21	280	1	0	302	2%		
	Total	68	1,137	2	0	1,207	2%	1,865	3,072
	Peak Hour Factor	0.81	0.94	0.50	0.00	0.95			
	% Trucks	0%	2%	0%	0%	2%			
Approach 4 Fillmore EB Bearing: 80	17:00 - 17:15	0	0	10	0	10	10%		
	17:15 - 17:30	1	0	14	0	15	0%		
	17:30 - 17:45	0	0	9	0	9	0%		
	17:45 - 18:00	0	0	15	0	15	0%		
	Total	1	0	48	0	49	2%	76	125
	Peak Hour Factor	0.25	0.00	0.80	0.00	0.82			
	% Trucks	0%	0%	2%	0%	2%			
Total Intersection	17:00 - 17:15	20	754	11	0	785	2%		
	17:15 - 17:30	15	764	18	0	797	2%		
	17:30 - 17:45	15	724	12	0	751	2%		
	17:45 - 18:00	21	712	19	0	752	1%		
	Total	71	2,954	60	0	3,085	2%		
	Peak Hour Factor	0.85	0.97	0.79	0.00	0.97			
	% Trucks	0%	2%	2%	0%	2%			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40039	Weather	Light Rain
Client Site Number	5	Pavement	Wet
Site Name	Seminary Rd & Filmore Ave	Latitude	N38:50.290
Location	Alexandria, VA	Longitude	W77:07:198
Survey Date	Fri, 07 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Fillmore WB Bearing: 250	07:00 - 07:15	0	0	6	0	6	33%		
	07:15 - 07:30	0	0	6	0	6	17%		
	07:30 - 07:45	0	0	7	0	7	29%		
	07:45 - 08:00	2	0	5	0	7	14%		
	Total	2	0	24	0	26	23%	40	66
	Peak Hour Factor	0.25	0.00	0.86	0.00	0.93			
% Trucks	0%	0%	25%	0%	23%				
Approach 2 Seminary NB Bearing: 340	07:00 - 07:15	0	302	2	0	304	2%		
	07:15 - 07:30	0	361	2	0	363	1%		
	07:30 - 07:45	0	372	3	0	375	2%		
	07:45 - 08:00	0	386	2	0	388	1%		
	Total	0	1,421	9	0	1,430	2%	809	2,239
	Peak Hour Factor	0.00	0.92	0.75	0.00	0.92			
% Trucks	0%	2%	11%	0%	2%				
Approach 3 Null EB Bearing: 90	07:00 - 07:15	0	0	0	0	0	0%		
	07:15 - 07:30	0	0	0	0	0	0%		
	07:30 - 07:45	0	0	0	0	0	0%		
	07:45 - 08:00	0	0	0	0	0	0%		
	Total	0	0	0	0	0	0%	0	0
	Peak Hour Factor	0.00	0.00	0.00	0.00	0.00			
% Trucks	0%	0%	0%	0%	0%				
Approach 4 Seminary SB Bearing: 160	07:00 - 07:15	6	165	0	0	171	6%		
	07:15 - 07:30	9	203	0	0	212	6%		
	07:30 - 07:45	8	186	0	0	194	5%		
	07:45 - 08:00	8	253	0	0	261	4%		
	Total	31	807	0	0	838	5%	1,445	2,283
	Peak Hour Factor	0.86	0.80	0.00	0.00	0.80			
% Trucks	19%	5%	0%	0%	5%				
Total Intersection	07:00 - 07:15	6	467	8	0	481	4%		
	07:15 - 07:30	9	564	8	0	581	3%		
	07:30 - 07:45	8	558	10	0	576	3%		
	07:45 - 08:00	10	639	7	0	656	2%		
	Total	33	2,228	33	0	2,294	3%		
	Peak Hour Factor	0.82	0.87	0.82	0.00	0.87			
% Trucks	18%	3%	21%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40039	Weather	Light Rain
Client Site Number	5	Pavement	Wet
Site Name	Seminary Rd & Fillmore Ave	Latitude	N38:50.290
Location	Alexandria, VA	Longitude	W77:07:198
Survey Date	Fri, 07 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Fillmore WB Bearing: 250	17:00 - 17:15	0	0	15	0	15	13%		
	17:15 - 17:30	0	0	10	0	10	10%		
	17:30 - 17:45	1	0	13	0	14	0%		
	17:45 - 18:00	0	0	12	0	12	17%		
	Total	1	0	50	0	51	10%	39	90
	Peak Hour Factor	0.25	0.00	0.83	0.00	0.85			
% Trucks	0%	0%	10%	0%	10%				
Approach 2 Seminary NB Bearing: 340	17:00 - 17:15	0	286	6	0	292	1%		
	17:15 - 17:30	0	306	0	0	306	2%		
	17:30 - 17:45	0	280	2	0	282	2%		
	17:45 - 18:00	0	289	3	0	292	1%		
	Total	0	1,161	11	0	1,172	2%	1,836	3,008
	Peak Hour Factor	0.00	0.95	0.46	0.00	0.96			
% Trucks	0%	2%	9%	0%	2%				
Approach 3 Null EB Bearing: 90	17:00 - 17:15	0	0	0	0	0	0%		
	17:15 - 17:30	0	0	0	0	0	0%		
	17:30 - 17:45	0	0	0	0	0	0%		
	17:45 - 18:00	0	0	0	0	0	0%		
	Total	0	0	0	0	0	0%	0	0
	Peak Hour Factor	0.00	0.00	0.00	0.00	0.00			
% Trucks	0%	0%	0%	0%	0%				
Approach 4 Seminary SB Bearing: 160	17:00 - 17:15	7	474	0	0	481	1%		
	17:15 - 17:30	5	470	0	0	475	1%		
	17:30 - 17:45	7	452	0	0	459	1%		
	17:45 - 18:00	9	439	0	0	448	1%		
	Total	28	1,835	0	0	1,863	1%	1,211	3,074
	Peak Hour Factor	0.78	0.97	0.00	0.00	0.97			
% Trucks	32%	1%	0%	0%	1%				
Total Intersection	17:00 - 17:15	7	760	21	0	788	2%		
	17:15 - 17:30	5	776	10	0	791	2%		
	17:30 - 17:45	8	732	15	0	755	2%		
	17:45 - 18:00	9	728	15	0	752	1%		
	Total	29	2,996	61	0	3,086	2%		
	Peak Hour Factor	0.81	0.97	0.73	0.00	0.98			
% Trucks	31%	1%	10%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40040	Weather	Clear
Client Site Number	6	Pavement	Dry
Site Name	Seminary Road & Echols Ave	Latitude	N 38:50.226
Location	Alexandria, VA	Longitude	W 77:07.161
Survey Date	Sat, 08 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Echols Ave. SWB Bearing: 230	07:00 - 07:15	1	0	0	0	1	0%		
	07:15 - 07:30	3	0	0	0	3	0%		
	07:30 - 07:45	1	0	0	0	1	0%		
	07:45 - 08:00	3	0	2	0	5	0%		
	Total	8	0	2	0	10	0%	10	20
	Peak Hour Factor	0.67	0.00	0.25	0.00	0.50			
% Trucks	0%	0%	0%	0%	0%				
Approach 2 Seminary Rd. NB Bearing: 340	07:00 - 07:15	4	331	3	0	338	1%		
	07:15 - 07:30	12	351	0	0	363	0%		
	07:30 - 07:45	3	400	1	0	404	2%		
	07:45 - 08:00	8	380	4	0	392	2%		
	Total	27	1,462	8	0	1,497	2%	953	2,450
	Peak Hour Factor	0.56	0.91	0.50	0.00	0.93			
% Trucks	7%	2%	0%	0%	2%				
Approach 3 Echols Ave. EB Bearing: 100	07:00 - 07:15	1	0	19	0	20	0%		
	07:15 - 07:30	2	0	17	0	19	0%		
	07:30 - 07:45	3	0	39	0	42	0%		
	07:45 - 08:00	4	0	33	0	37	0%		
	Total	10	0	108	0	118	0%	28	146
	Peak Hour Factor	0.63	0.00	0.69	0.00	0.70			
% Trucks	0%	0%	0%	0%	0%				
Approach 4 Seminary Rd. SB Bearing: 160	07:00 - 07:15	1	179	0	0	180	6%		
	07:15 - 07:30	0	181	1	0	182	5%		
	07:30 - 07:45	1	217	0	0	218	5%		
	07:45 - 08:00	0	260	0	0	260	2%		
	Total	2	837	1	0	840	4%	1,474	2,314
	Peak Hour Factor	0.50	0.80	0.25	0.00	0.81			
% Trucks	0%	4%	0%	0%	4%				
Total Intersection	07:00 - 07:15	7	510	22	0	539	3%		
	07:15 - 07:30	17	532	18	0	567	2%		
	07:30 - 07:45	8	617	40	0	665	3%		
	07:45 - 08:00	15	640	39	0	694	2%		
	Total	47	2,299	119	0	2,465	2%		
	Peak Hour Factor	0.69	0.90	0.74	0.00	0.89			
% Trucks	4%	3%	0%	0%	2%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40040	Weather	Clear
Client Site Number	6	Pavement	Dry
Site Name	Seminary Road & Echols Ave	Latitude	N 38:50.226
Location	Alexandria, VA	Longitude	W 77:07.161
Survey Date	Sat, 08 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Echols Ave. SWB Bearing: 230	17:00 - 17:15	0	2	1	0	3	0%		
	17:15 - 17:30	4	0	0	0	4	0%		
	17:30 - 17:45	2	1	1	0	4	0%		
	17:45 - 18:00	3	1	2	0	6	0%		
	Total	9	4	4	0	17	0%	18	35
	Peak Hour Factor	0.56	0.50	0.50	0.00	0.71			
% Trucks	0%	0%	0%	0%	0%				
Approach 2 Seminary Rd. NB Bearing: 340	17:00 - 17:15	26	277	2	0	305	3%		
	17:15 - 17:30	13	332	5	0	350	2%		
	17:30 - 17:45	19	310	4	0	333	3%		
	17:45 - 18:00	14	315	2	0	331	1%		
	Total	72	1,234	13	0	1,319	2%	1,931	3,250
	Peak Hour Factor	0.69	0.93	0.65	0.00	0.94			
% Trucks	0%	2%	0%	0%	2%				
Approach 3 Echols Ave. EB Bearing: 100	17:00 - 17:15	1	2	17	0	20	0%		
	17:15 - 17:30	0	0	17	0	17	0%		
	17:30 - 17:45	1	0	19	0	20	0%		
	17:45 - 18:00	1	0	11	0	12	0%		
	Total	3	2	64	0	69	0%	86	155
	Peak Hour Factor	0.75	0.25	0.84	0.00	0.86			
% Trucks	0%	0%	0%	0%	0%				
Approach 4 Seminary Rd. SB Bearing: 160	17:00 - 17:15	1	422	1	0	424	0%		
	17:15 - 17:30	1	477	2	0	480	1%		
	17:30 - 17:45	1	466	0	0	467	1%		
	17:45 - 18:00	0	493	7	0	500	1%		
	Total	3	1,858	10	0	1,871	1%	1,241	3,112
	Peak Hour Factor	0.75	0.94	0.36	0.00	0.94			
% Trucks	0%	1%	0%	0%	1%				
Total Intersection	17:00 - 17:15	28	703	21	0	752	1%		
	17:15 - 17:30	18	809	24	0	851	2%		
	17:30 - 17:45	23	777	24	0	824	2%		
	17:45 - 18:00	18	809	22	0	849	1%		
	Total	87	3,098	91	0	3,276	1%		
	Peak Hour Factor	0.78	0.96	0.95	0.00	0.96			
% Trucks	0%	1%	0%	0%	1%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40041	Weather	Clear
Client Site Number	7	Pavement	Dry
Site Name	Seminary Rd & Fairbanks Ave	Latitude	N38:50.161
Location	Alexandria, VA	Longitude	W77:07.076
Survey Date	Tue, 11 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NB Bearing: 360	07:00 - 07:15	2	344	4	0	350	1%		
	07:15 - 07:30	1	350	3	0	354	0%		
	07:30 - 07:45	0	411	2	0	413	2%		
	07:45 - 08:00	0	395	2	0	397	2%		
	<b>Total</b>	<b>3</b>	<b>1,500</b>	<b>11</b>	<b>0</b>	<b>1,514</b>	<b>2%</b>	<b>968</b>	<b>2,482</b>
	<b>Peak Hour Factor</b>	<b>0.38</b>	<b>0.91</b>	<b>0.69</b>	<b>0.00</b>	<b>0.92</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>			
Approach 2 Heritage Lane EB Bearing: 90	07:00 - 07:15	0	0	7	0	7	0%		
	07:15 - 07:30	1	0	4	0	5	0%		
	07:30 - 07:45	0	0	5	0	5	0%		
	07:45 - 08:00	0	0	2	0	2	0%		
	<b>Total</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>19</b>	<b>0%</b>	<b>4</b>	<b>23</b>
	<b>Peak Hour Factor</b>	<b>0.25</b>	<b>0.00</b>	<b>0.64</b>	<b>0.00</b>	<b>0.68</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>				
Approach 3 Seminary Rd. SB Bearing: 180	07:00 - 07:15	0	197	0	0	197	6%		
	07:15 - 07:30	0	199	1	0	200	4%		
	07:30 - 07:45	0	260	0	0	260	4%		
	07:45 - 08:00	0	292	0	0	292	2%		
	<b>Total</b>	<b>0</b>	<b>948</b>	<b>1</b>	<b>0</b>	<b>949</b>	<b>4%</b>	<b>1,502</b>	<b>2,451</b>
	<b>Peak Hour Factor</b>	<b>0.00</b>	<b>0.81</b>	<b>0.25</b>	<b>0.00</b>	<b>0.81</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>4%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>			
Approach 4 Fairbanks WB Bearing: 270	07:00 - 07:15	1	0	0	0	1	0%		
	07:15 - 07:30	0	0	1	0	1	0%		
	07:30 - 07:45	0	0	0	0	0	0%		
	07:45 - 08:00	1	0	0	0	1	0%		
	<b>Total</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0%</b>	<b>11</b>	<b>14</b>
	<b>Peak Hour Factor</b>	<b>0.50</b>	<b>0.00</b>	<b>0.25</b>	<b>0.00</b>	<b>0.75</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>			
Total Intersection	07:00 - 07:15	3	541	11	0	555	3%		
	07:15 - 07:30	2	549	9	0	560	2%		
	07:30 - 07:45	0	671	7	0	678	3%		
	07:45 - 08:00	1	687	4	0	692	2%		
	<b>Total</b>	<b>6</b>	<b>2,448</b>	<b>31</b>	<b>0</b>	<b>2,485</b>	<b>2%</b>		
	<b>Peak Hour Factor</b>	<b>0.50</b>	<b>0.89</b>	<b>0.70</b>	<b>0.00</b>	<b>0.90</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>3%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>			

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40041	Weather	Clear
Client Site Number	7	Pavement	Dry
Site Name	Seminary Rd & Fairbanks Ave	Latitude	N38:50.161
Location	Alexandria, VA	Longitude	W77:07.076
Survey Date	Tue, 11 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NB Bearing: 360	17:00 - 17:15	2	309	2	1	314	2%		
	17:15 - 17:30	0	351	0	0	351	2%		
	17:30 - 17:45	2	330	1	0	333	2%		
	17:45 - 18:00	4	332	0	0	336	1%		
	Total	8	1,322	3	1	1,334	2%	1,951	3,285
	Peak Hour Factor	0.50	0.94	0.38	0.25	0.95			
% Trucks	0%	2%	0%	0%	2%				
Approach 2 Heritage Lane EB Bearing: 90	17:00 - 17:15	0	0	4	0	4	0%		
	17:15 - 17:30	0	0	1	0	1	0%		
	17:30 - 17:45	0	0	3	0	3	0%		
	17:45 - 18:00	0	0	2	0	2	0%		
	Total	0	0	10	0	10	0%	11	21
	Peak Hour Factor	0.00	0.00	0.63	0.00	0.63			
% Trucks	0%	0%	0%	0%	0%				
Approach 3 Seminary Rd. SB Bearing: 180	17:00 - 17:15	0	450	1	0	451	1%		
	17:15 - 17:30	0	497	0	0	497	1%		
	17:30 - 17:45	1	480	1	0	482	1%		
	17:45 - 18:00	0	512	1	0	513	1%		
	Total	1	1,939	3	0	1,943	1%	1,326	3,269
	Peak Hour Factor	0.25	0.95	0.75	0.00	0.95			
% Trucks	0%	1%	0%	0%	1%				
Approach 4 Fairbanks WB Bearing: 270	17:00 - 17:15	0	0	0	0	0	0%		
	17:15 - 17:30	1	0	1	0	2	0%		
	17:30 - 17:45	0	0	2	0	2	0%		
	17:45 - 18:00	0	0	1	0	1	0%		
	Total	1	0	4	0	5	0%	4	9
	Peak Hour Factor	0.25	0.00	0.50	0.00	0.63			
% Trucks	0%	0%	0%	0%	0%				
Total Intersection	17:00 - 17:15	2	759	7	1	769	1%		
	17:15 - 17:30	1	848	2	0	851	2%		
	17:30 - 17:45	3	810	7	0	820	2%		
	17:45 - 18:00	4	844	4	0	852	1%		
	Total	10	3,261	20	1	3,292	1%		
	Peak Hour Factor	0.63	0.96	0.71	0.25	0.97			
% Trucks	0%	1%	0%	0%	1%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40042	Weather	Overcast
Client Site Number	8	Pavement	Dry
Site Name	Seminary Rd & Beauregard St	Latitude	N38:50.045
Location	Alexandria, VA	Longitude	W77:07.030
Survey Date	Tue, 11 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard St EB Bearing: 90	07:00 - 07:15	106	79	95	0	280	2%		
	07:15 - 07:30	94	137	117	1	349	4%		
	07:30 - 07:45	129	128	132	0	389	2%		
	07:45 - 08:00	103	199	95	0	397	3%		
	Total	432	543	439	1	1,415	3%	541	1,956
	Peak Hour Factor	0.84	0.68	0.83	0.25	0.89			
% Trucks	1%	5%	2%	0%	3%				
Approach 2 Seminary Rd SB Bearing: 180	07:00 - 07:15	9	152	43	0	204	3%		
	07:15 - 07:30	12	138	33	0	183	5%		
	07:30 - 07:45	15	211	51	0	277	4%		
	07:45 - 08:00	20	210	53	0	283	2%		
	Total	56	711	180	0	947	4%	1,506	2,453
	Peak Hour Factor	0.70	0.84	0.85	0.00	0.84			
% Trucks	4%	4%	2%	0%	4%				
Approach 3 Beauregard St WB Bearing: 270	07:00 - 07:15	20	24	3	0	47	9%		
	07:15 - 07:30	17	30	7	0	54	4%		
	07:30 - 07:45	24	31	9	0	64	2%		
	07:45 - 08:00	22	53	14	0	89	2%		
	Total	83	138	33	0	254	4%	822	1,076
	Peak Hour Factor	0.86	0.65	0.59	0.00	0.71			
% Trucks	1%	6%	0%	0%	4%				
Approach 4 Seminary Rd NB Bearing: 360	07:00 - 07:15	33	235	25	0	293	3%		
	07:15 - 07:30	54	259	28	0	341	0%		
	07:30 - 07:45	52	280	102	0	434	3%		
	07:45 - 08:00	83	267	68	3	421	1%		
	Total	222	1,041	223	3	1,489	2%	1,236	2,725
	Peak Hour Factor	0.67	0.93	0.55	0.25	0.86			
% Trucks	3%	2%	2%	0%	2%				
Total Intersection	07:00 - 07:15	168	490	166	0	824	3%		
	07:15 - 07:30	177	564	185	1	927	3%		
	07:30 - 07:45	220	650	294	0	1164	3%		
	07:45 - 08:00	228	729	230	3	1190	2%		
	Total	793	2,433	875	4	4,105	3%		
	Peak Hour Factor	0.87	0.83	0.74	0.33	0.86			
% Trucks	2%	3%	2%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40042	Weather	Overcast
Client Site Number	8	Pavement	Dry
Site Name	Seminary Rd & Beauregard St	Latitude	N38:50.045
Location	Alexandria, VA	Longitude	W77:07.030
Survey Date	Tue, 11 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard St EB Bearing: 90	17:00 - 17:15	79	98	142	0	319	0%		
	17:15 - 17:30	78	81	100	0	259	2%		
	17:30 - 17:45	80	76	91	0	247	1%		
	17:45 - 18:00	101	76	101	0	278	1%		
	<b>Total</b>	<b>338</b>	<b>331</b>	<b>434</b>	<b>0</b>	<b>1,103</b>	<b>1%</b>	<b>1,526</b>	<b>2,629</b>
	<b>Peak Hour Factor</b>	<b>0.84</b>	<b>0.84</b>	<b>0.76</b>	<b>0.00</b>	<b>0.86</b>			
	<b>% Trucks</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>			
Approach 2 Seminary Rd SB Bearing: 180	17:00 - 17:15	22	307	127	0	456	0%		
	17:15 - 17:30	20	337	141	0	498	1%		
	17:30 - 17:45	16	333	133	0	482	1%		
	17:45 - 18:00	14	339	163	0	516	1%		
	<b>Total</b>	<b>72</b>	<b>1,316</b>	<b>564</b>	<b>0</b>	<b>1,952</b>	<b>1%</b>	<b>1,336</b>	<b>3,288</b>
	<b>Peak Hour Factor</b>	<b>0.82</b>	<b>0.97</b>	<b>0.87</b>	<b>0.00</b>	<b>0.95</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>1%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>			
Approach 3 Beauregard St WB Bearing: 270	17:00 - 17:15	49	125	14	0	188	3%		
	17:15 - 17:30	43	119	14	0	176	3%		
	17:30 - 17:45	43	135	17	0	195	3%		
	17:45 - 18:00	47	122	12	0	181	2%		
	<b>Total</b>	<b>182</b>	<b>501</b>	<b>57</b>	<b>0</b>	<b>740</b>	<b>3%</b>	<b>603</b>	<b>1,343</b>
	<b>Peak Hour Factor</b>	<b>0.93</b>	<b>0.93</b>	<b>0.84</b>	<b>0.00</b>	<b>0.95</b>			
	<b>% Trucks</b>	<b>1%</b>	<b>3%</b>	<b>7%</b>	<b>0%</b>	<b>3%</b>			
Approach 4 Seminary Rd NB Bearing: 360	17:00 - 17:15	125	222	45	1	393	2%		
	17:15 - 17:30	110	254	62	0	426	2%		
	17:30 - 17:45	115	250	60	2	427	1%		
	17:45 - 18:00	111	215	33	2	361	1%		
	<b>Total</b>	<b>461</b>	<b>941</b>	<b>200</b>	<b>5</b>	<b>1,607</b>	<b>1%</b>	<b>1,937</b>	<b>3,544</b>
	<b>Peak Hour Factor</b>	<b>0.92</b>	<b>0.93</b>	<b>0.81</b>	<b>0.63</b>	<b>0.94</b>			
	<b>% Trucks</b>	<b>1%</b>	<b>2%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>			
Total Intersection	17:00 - 17:15	275	752	328	1	1356	1%		
	17:15 - 17:30	251	791	317	0	1359	2%		
	17:30 - 17:45	254	794	301	2	1351	1%		
	17:45 - 18:00	273	752	309	2	1336	1%		
	<b>Total</b>	<b>1,053</b>	<b>3,089</b>	<b>1,255</b>	<b>5</b>	<b>5,402</b>	<b>1%</b>		
	<b>Peak Hour Factor</b>	<b>0.96</b>	<b>0.97</b>	<b>0.96</b>	<b>0.63</b>	<b>0.99</b>			
	<b>% Trucks</b>	<b>1%</b>	<b>2%</b>	<b>1%</b>	<b>0%</b>	<b>1%</b>			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: P - Pedestrians (15)

Count Number	FC40042	Weather	Clear
Client Site Number	8	Pavement	Dry
Site Name	Seminary Rd & Beauregard St	Latitude	N38:50.045
Location	Alexandria, VA	Longitude	W77:07.030
Survey Date	Tue, 11 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Beauregard St EB Bearing: 90	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	1	0	1
	07:45 - 08:00	0	0	0	0	0
	Total	0	0	1	0	1
	Peak Hour Factor	0.00	0.00	0.25	0.00	0.25
Approach 2 Seminary Rd SB Bearing: 180	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	0	0	0
	07:45 - 08:00	1	0	0	0	1
	Total	1	0	0	0	1
	Peak Hour Factor	0.25	0.00	0.00	0.00	0.25
Approach 3 Beauregard St WB Bearing: 270	07:00 - 07:15	1	0	1	0	2
	07:15 - 07:30	2	0	0	0	2
	07:30 - 07:45	4	0	0	0	4
	07:45 - 08:00	1	0	1	0	2
	Total	8	0	2	0	10
	Peak Hour Factor	0.50	0.00	0.50	0.00	0.63
Approach 4 Seminary Rd NB Bearing: 360	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	0	0	0
	07:45 - 08:00	0	0	0	0	0
	Total	0	0	0	0	0
	Peak Hour Factor	0.00	0.00	0.00	0.00	0.00
Total Intersection	07:00 - 07:15	1	0	1	0	2
	07:15 - 07:30	2	0	0	0	2
	07:30 - 07:45	4	0	1	0	5
	07:45 - 08:00	2	0	1	0	3
	Total	9	0	3	0	12
	Peak Hour Factor	0.56	0.00	0.75	0.00	0.60

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: P - Pedestrians (15)

Count Number	FC40042	Weather	Clear
Client Site Number	8	Pavement	Dry
Site Name	Seminary Rd & Beauregard St	Latitude	N38:50.045
Location	Alexandria, VA	Longitude	W77:07.030
Survey Date	Tue, 11 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Beauregard St EB Bearing: 90	17:00 - 17:15	2	0	0	0	2
	17:15 - 17:30	1	0	0	0	1
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	0	0	0	0	0
	Total	3	0	0	0	3
	Peak Hour Factor	0.38	0.00	0.00	0.00	0.38
Approach 2 Seminary Rd SB Bearing: 180	17:00 - 17:15	5	0	3	0	8
	17:15 - 17:30	0	0	0	0	0
	17:30 - 17:45	1	0	0	0	1
	17:45 - 18:00	0	0	0	0	0
	Total	6	0	3	0	9
	Peak Hour Factor	0.30	0.00	0.25	0.00	0.28
Approach 3 Beauregard St WB Bearing: 270	17:00 - 17:15	7	0	0	0	7
	17:15 - 17:30	0	0	2	0	2
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	1	0	1	0	2
	Total	8	0	3	0	11
	Peak Hour Factor	0.29	0.00	0.38	0.00	0.39
Approach 4 Seminary Rd NB Bearing: 360	17:00 - 17:15	1	0	0	0	1
	17:15 - 17:30	0	0	1	0	1
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	0	0	0	0	0
	Total	1	0	1	0	2
	Peak Hour Factor	0.25	0.00	0.25	0.00	0.50
Total Intersection	17:00 - 17:15	15	0	3	0	18
	17:15 - 17:30	1	0	3	0	4
	17:30 - 17:45	1	0	0	0	1
	17:45 - 18:00	1	0	1	0	2
	Total	18	0	7	0	25
	Peak Hour Factor	0.30	0.00	0.58	0.00	0.35

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40043	Weather	Clear
Client Site Number	9	Pavement	Dry
Site Name	Seminary Rd / Mark Ctr Dr.	Latitude	N 38:49.962
Location	Alexandria, VA	Longitude	W 77:06.931
Survey Date	Tue, 11 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NWB Bearing: 315	07:00 - 07:15	63	281	Southern	1	357	3%		
	07:15 - 07:30	66	334	20	1	421	3%		
	07:30 - 07:45	64	422	21	0	507	3%		
	07:45 - 08:00	85	378	11	1	475	3%		
	Total	278	1,415	64	3	1,760	3%	1,574	3,334
	Peak Hour Factor	0.82	0.84	0.76	0.75	0.87			
% Trucks	4%	2%	28%	0%	3%				
Approach 2 Mark Center Dr. EB Bearing: 80	07:00 - 07:15	2	0	36	2	40	8%		
	07:15 - 07:30	6	2	40	0	48	2%		
	07:30 - 07:45	6	0	41	0	47	6%		
	07:45 - 08:00	10	2	30	0	42	2%		
	Total	24	4	147	2	177	5%	354	531
	Peak Hour Factor	0.60	0.50	0.90	0.25	0.92			
% Trucks	4%	0%	5%	0%	5%				
Approach 3 Seminary SEB Bearing: 150	07:00 - 07:15	5	254	9	0	268	3%		
	07:15 - 07:30	5	250	6	0	261	5%		
	07:30 - 07:45	4	365	12	1	382	3%		
	07:45 - 08:00	8	292	19	0	319	2%		
	Total	22	1,161	46	1	1,230	3%	1,506	2,736
	Peak Hour Factor	0.69	0.80	0.61	0.25	0.80			
% Trucks	18%	3%	0%	0%	3%				
Approach 4 Southern Twrs SWB Bearing: 225	07:00 - 07:15	50	3	14	0	67	7%		
	07:15 - 07:30	80	3	15	0	98	10%		
	07:30 - 07:45	55	8	14	0	77	8%		
	07:45 - 08:00	78	14	23	0	115	6%		
	Total	263	28	66	0	357	8%	90	447
	Peak Hour Factor	0.82	0.50	0.72	0.00	0.78			
% Trucks	10%	7%	2%	0%	8%				
Total Intersection	07:00 - 07:15	120	538	71	3	732	4%		
	07:15 - 07:30	157	589	81	1	828	4%		
	07:30 - 07:45	129	795	88	1	1013	4%		
	07:45 - 08:00	181	686	83	1	951	3%		
	Total	587	2,608	323	6	3,524	4%		
	Peak Hour Factor	0.81	0.82	0.92	0.50	0.87			
% Trucks	7%	2%	8%	0%	4%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40043	Weather	Clear
Client Site Number	9	Pavement	Dry
Site Name	Seminary Rd / Mark Ctr Dr.	Latitude	N 38:49.962
Location	Alexandria, VA	Longitude	W 77:06.931
Survey Date	Tue, 11 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Seminary NWB Bearing: 315	17:00 - 17:15	52	360	Southern	0	441	3%		
	17:15 - 17:30	52	388	43	2	485	3%		
	17:30 - 17:45	56	380	41	3	480	3%		
	17:45 - 18:00	56	357	51	2	466	2%		
	Total	216	1,485	164	7	1,872	3%	2,526	4,398
	Peak Hour Factor	0.96	0.96	0.80	0.58	0.96			
% Trucks	4%	2%	11%	0%	3%				
Approach 2 Mark Center Dr. EB Bearing: 80	17:00 - 17:15	15	7	150	0	172	2%		
	17:15 - 17:30	18	4	131	0	153	2%		
	17:30 - 17:45	19	4	121	0	144	2%		
	17:45 - 18:00	7	4	122	0	133	2%		
	Total	59	19	524	0	602	2%	278	880
	Peak Hour Factor	0.78	0.68	0.87	0.00	0.88			
% Trucks	2%	11%	2%	0%	2%				
Approach 3 Seminary SEB Bearing: 150	17:00 - 17:15	13	461	6	0	480	1%		
	17:15 - 17:30	17	469	14	0	500	2%		
	17:30 - 17:45	15	430	13	0	458	1%		
	17:45 - 18:00	19	469	12	0	500	1%		
	Total	64	1,829	45	0	1,938	1%	1,613	3,551
	Peak Hour Factor	0.84	0.97	0.80	0.00	0.97			
% Trucks	0%	1%	0%	0%	1%				
Approach 4 Southern Twrs SWB Bearing: 225	17:00 - 17:15	50	5	17	0	72	6%		
	17:15 - 17:30	44	2	23	0	69	9%		
	17:30 - 17:45	39	5	12	0	56	4%		
	17:45 - 18:00	33	5	17	0	55	7%		
	Total	166	17	69	0	252	6%	247	499
	Peak Hour Factor	0.83	0.85	0.75	0.00	0.88			
% Trucks	8%	0%	3%	0%	6%				
Total Intersection	17:00 - 17:15	130	833	202	0	1165	2%		
	17:15 - 17:30	131	863	211	2	1207	3%		
	17:30 - 17:45	129	819	187	3	1138	2%		
	17:45 - 18:00	115	835	202	2	1154	2%		
	Total	505	3,350	802	7	4,664	2%		
	Peak Hour Factor	0.96	0.97	0.95	0.58	0.97			
% Trucks	5%	1%	4%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: P - Pedestrians (15)

Count Number	FC40043	Weather	Clear
Client Site Number	9	Pavement	Dry
Site Name	Seminary Rd / Mark Ctr Dr.	Latitude	N 38:49.962
Location	Alexandria, VA	Longitude	W 77:06.931
Survey Date	Tue, 11 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Seminary NWB Bearing: 315	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	1	0	0	0	1
	07:30 - 07:45	0	0	0	0	0
	07:45 - 08:00	1	0	0	0	1
	Total	2	0	0	0	2
	Peak Hour Factor	0.50	0.00	0.00	0.00	0.50
Approach 2 Mark Center Dr. EB Bearing: 80	07:00 - 07:15	0	0	1	0	1
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	0	0	0
	07:45 - 08:00	0	0	0	0	0
	Total	0	0	1	0	1
	Peak Hour Factor	0.00	0.00	0.25	0.00	0.25
Approach 3 Seminary SEB Bearing: 150	07:00 - 07:15	0	0	2	0	2
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	1	0	1
	07:45 - 08:00	0	0	2	0	2
	Total	0	0	5	0	5
	Peak Hour Factor	0.00	0.00	0.63	0.00	0.63
Approach 4 Southern Twrs SWB Bearing: 225	07:00 - 07:15	0	0	1	0	1
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	1	0	1	0	2
	07:45 - 08:00	0	0	0	0	0
	Total	1	0	2	0	3
	Peak Hour Factor	0.25	0.00	0.50	0.00	0.38
Total Intersection	07:00 - 07:15	0	0	4	0	4
	07:15 - 07:30	1	0	0	0	1
	07:30 - 07:45	1	0	2	0	3
	07:45 - 08:00	1	0	2	0	3
	Total	3	0	8	0	11
	Peak Hour Factor	0.75	0.00	0.50	0.00	0.69

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: P - Pedestrians (15)

Count Number	FC40043	Weather	Clear
Client Site Number	9	Pavement	Dry
Site Name	Seminary Rd / Mark Ctr Dr.	Latitude	N 38:49.962
Location	Alexandria, VA	Longitude	W 77:06.931
Survey Date	Tue, 11 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Seminary NWB Bearing: 315	17:00 - 17:15	0	0	0	0	0
	17:15 - 17:30	2	0	0	0	2
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	1	0	1	0	2
	Total	3	0	1	0	4
	Peak Hour Factor	0.38	0.00	0.25	0.00	0.50
Approach 2 Mark Center Dr. EB Bearing: 80	17:00 - 17:15	0	0	1	0	1
	17:15 - 17:30	0	0	0	0	0
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	0	0	0	0	0
	Total	0	0	1	0	1
	Peak Hour Factor	0.00	0.00	0.25	0.00	0.25
Approach 3 Seminary SEB Bearing: 150	17:00 - 17:15	0	0	4	0	4
	17:15 - 17:30	0	0	3	0	3
	17:30 - 17:45	1	0	0	0	1
	17:45 - 18:00	0	0	0	0	0
	Total	1	0	7	0	8
	Peak Hour Factor	0.25	0.00	0.44	0.00	0.50
Approach 4 Southern Twrs SWB Bearing: 225	17:00 - 17:15	0	0	0	0	0
	17:15 - 17:30	1	0	2	0	3
	17:30 - 17:45	0	0	0	0	0
	17:45 - 18:00	0	0	1	0	1
	Total	1	0	3	0	4
	Peak Hour Factor	0.25	0.00	0.38	0.00	0.33
Total Intersection	17:00 - 17:15	0	0	5	0	5
	17:15 - 17:30	3	0	5	0	8
	17:30 - 17:45	1	0	0	0	1
	17:45 - 18:00	1	0	2	0	3
	Total	5	0	12	0	17
	Peak Hour Factor	0.42	0.00	0.60	0.00	0.53

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40044	Weather	Clear
Client Site Number	10	Pavement	Dry
Site Name	Beauregard Street & Mark Center	Latitude	N 38:50.000
Location	Alexandria, VA	Longitude	W 77:07.193
Survey Date	Thu, 20 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard St NEB Bearing: 45	07:00 - 07:15	0	275	32	0	307	2%		
	07:15 - 07:30	3	362	33	0	398	3%		
	07:30 - 07:45	3	330	24	0	357	3%		
	07:45 - 08:00	3	399	33	0	435	3%		
	Total	9	1,366	122	0	1,497	2%	440	1,937
	Peak Hour Factor	0.75	0.86	0.92	0.00	0.86			
	% Trucks	0%	3%	1%	0%	2%			
Approach 2 Mark Center Ext. SEB Bearing: 135	07:00 - 07:15	1	2	0	0	3	33%		
	07:15 - 07:30	3	0	0	0	3	0%		
	07:30 - 07:45	2	3	0	0	5	0%		
	07:45 - 08:00	2	2	0	0	4	0%		
	Total	8	7	0	0	15	7%	47	62
	Peak Hour Factor	0.67	0.58	0.00	0.00	0.75			
	% Trucks	0%	14%	0%	0%	7%			
Approach 3 Beauregard St SWB Bearing: 240	07:00 - 07:15	9	76	7	0	92	4%		
	07:15 - 07:30	16	95	8	0	119	2%		
	07:30 - 07:45	12	116	8	0	136	1%		
	07:45 - 08:00	37	136	14	0	187	3%		
	Total	74	423	37	0	534	3%	1,413	1,947
	Peak Hour Factor	0.50	0.78	0.66	0.00	0.71			
	% Trucks	3%	3%	0%	0%	3%			
Approach 4 Mark Center Drive NWB Bearing: 330	07:00 - 07:15	2	0	9	0	11	9%		
	07:15 - 07:30	2	1	6	0	9	11%		
	07:30 - 07:45	6	0	14	0	20	10%		
	07:45 - 08:00	7	0	10	0	17	12%		
	Total	17	1	39	0	57	11%	203	260
	Peak Hour Factor	0.61	0.25	0.70	0.00	0.71			
	% Trucks	24%	0%	5%	0%	11%			
Total Intersection	07:00 - 07:15	12	353	48	0	413	3%		
	07:15 - 07:30	24	458	47	0	529	2%		
	07:30 - 07:45	23	449	46	0	518	3%		
	07:45 - 08:00	49	537	57	0	643	3%		
	Total	108	1,797	198	0	2,103	3%		
	Peak Hour Factor	0.55	0.84	0.87	0.00	0.82			
% Trucks	6%	3%	2%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40044	Weather	Clear
Client Site Number	10	Pavement	Dry
Site Name	Beauregard St & Mark Center Dr	Latitude	N 38:50.000
Location	Alexandria, VA	Longitude	W 77:07.193
Survey Date	Thu, 20 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard St NEB Bearing: 45	17:00 - 17:15	0	260	4	0	264	0%		
	17:15 - 17:30	1	222	11	0	234	3%		
	17:30 - 17:45	1	230	4	0	235	2%		
	17:45 - 18:00	0	229	14	0	243	1%		
	<b>Total</b>	<b>2</b>	<b>941</b>	<b>33</b>	<b>0</b>	<b>976</b>	<b>1%</b>	<b>1,610</b>	<b>2,586</b>
	Peak Hour Factor	0.50	0.90	0.59	0.00	0.92			
% Trucks	0%	1%	6%	0%	1%				
Approach 2 Mark Center Ext. SEB Bearing: 135	17:00 - 17:15	18	5	6	0	29	0%		
	17:15 - 17:30	13	3	5	0	21	0%		
	17:30 - 17:45	9	2	6	0	17	0%		
	17:45 - 18:00	8	1	4	0	13	0%		
	<b>Total</b>	<b>48</b>	<b>11</b>	<b>21</b>	<b>0</b>	<b>80</b>	<b>0%</b>	<b>9</b>	<b>89</b>
	Peak Hour Factor	0.67	0.55	0.88	0.00	0.69			
% Trucks	0%	0%	0%	0%	0%				
Approach 3 Beauregard St SWB Bearing: 240	17:00 - 17:15	10	360	2	0	372	3%		
	17:15 - 17:30	5	366	1	1	373	1%		
	17:30 - 17:45	6	380	0	0	386	2%		
	17:45 - 18:00	11	349	1	1	362	2%		
	<b>Total</b>	<b>32</b>	<b>1,455</b>	<b>4</b>	<b>2</b>	<b>1,493</b>	<b>2%</b>	<b>1,161</b>	<b>2,654</b>
	Peak Hour Factor	0.73	0.96	0.50	0.50	0.97			
% Trucks	0%	2%	0%	0%	2%				
Approach 4 Mark Center Drive NWB Bearing: 330	17:00 - 17:15	32	2	72	0	106	0%		
	17:15 - 17:30	42	0	48	0	90	0%		
	17:30 - 17:45	25	1	26	0	52	0%		
	17:45 - 18:00	35	0	24	0	59	0%		
	<b>Total</b>	<b>134</b>	<b>3</b>	<b>170</b>	<b>0</b>	<b>307</b>	<b>0%</b>	<b>76</b>	<b>383</b>
	Peak Hour Factor	0.80	0.38	0.59	0.00	0.72			
% Trucks	0%	0%	0%	0%	0%				
Total Intersection	17:00 - 17:15	60	627	84	0	771	1%		
	17:15 - 17:30	61	591	65	1	718	2%		
	17:30 - 17:45	41	613	36	0	690	2%		
	17:45 - 18:00	54	579	43	1	677	2%		
	<b>Total</b>	<b>216</b>	<b>2,410</b>	<b>228</b>	<b>2</b>	<b>2,856</b>	<b>2%</b>		
	Peak Hour Factor	0.89	0.96	0.68	0.50	0.93			
% Trucks	0%	2%	1%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40045	Weather	Clear
Client Site Number	11	Pavement	Dry
Site Name	Beauregard St & Highview La	Latitude	N 38:49.975
Location	Alexandria, VA	Longitude	W 77:07.364
Survey Date	Thu, 20 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 60	07:00 - 07:15	1	318	11	0	330	2%		
	07:15 - 07:30	3	373	11	0	387	3%		
	07:30 - 07:45	2	353	18	0	373	3%		
	07:45 - 08:00	0	424	18	0	442	2%		
	Total	6	1,468	58	0	1,532	2%	388	1,920
	Peak Hour Factor	0.50	0.87	0.81	0.00	0.87			
% Trucks	0%	3%	0%	0%	2%				
Approach 2 Highview SEB Bearing: 135	07:00 - 07:15	2	0	0	0	2	0%		
	07:15 - 07:30	0	0	0	0	0	0%		
	07:30 - 07:45	5	0	0	0	5	20%		
	07:45 - 08:00	0	1	0	0	1	100%		
	Total	7	1	0	0	8	25%	34	42
	Peak Hour Factor	0.35	0.25	0.00	0.00	0.40			
% Trucks	14%	100%	0%	0%	25%				
Approach 3 Beauregard SWB Bearing: 240	07:00 - 07:15	5	71	4	0	80	6%		
	07:15 - 07:30	4	84	7	0	95	2%		
	07:30 - 07:45	5	114	4	1	124	2%		
	07:45 - 08:00	7	116	12	0	135	5%		
	Total	21	385	27	1	434	4%	1,491	1,925
	Peak Hour Factor	0.75	0.83	0.56	0.25	0.80			
% Trucks	0%	4%	7%	0%	4%				
Approach 4 Highview NWB Bearing: 330	07:00 - 07:15	1	0	3	0	4	0%		
	07:15 - 07:30	0	1	4	0	5	0%		
	07:30 - 07:45	2	0	6	0	8	13%		
	07:45 - 08:00	0	0	2	0	2	0%		
	Total	3	1	15	0	19	5%	80	99
	Peak Hour Factor	0.38	0.25	0.63	0.00	0.59			
% Trucks	33%	0%	0%	0%	5%				
Total Intersection	07:00 - 07:15	9	389	18	0	416	3%		
	07:15 - 07:30	7	458	22	0	487	2%		
	07:30 - 07:45	14	467	28	1	510	3%		
	07:45 - 08:00	7	541	32	0	580	3%		
	Total	37	1,855	100	1	1,993	3%		
	Peak Hour Factor	0.66	0.86	0.78	0.25	0.86			
% Trucks	5%	3%	2%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40045	Weather	Clear
Client Site Number	11	Pavement	Dry
Site Name	Beauregard St & Highview La	Latitude	N 38:49.975
Location	Alexandria, VA	Longitude	W 77:07.364
Survey Date	Thu, 20 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 60	17:00 - 17:15	3	215	0	0	218	1%		
	17:15 - 17:30	5	204	0	0	209	2%		
	17:30 - 17:45	5	192	3	0	200	1%		
	17:45 - 18:00	6	214	1	0	221	1%		
	Total	19	825	4	0	848	2%	1,622	2,470
	Peak Hour Factor	0.79	0.96	0.33	0.00	0.96			
	% Trucks	0%	2%	0%	0%	2%			
Approach 2 Highview SEB Bearing: 135	17:00 - 17:15	19	0	7	0	26	0%		
	17:15 - 17:30	19	4	4	0	27	7%		
	17:30 - 17:45	13	1	7	0	21	5%		
	17:45 - 18:00	20	2	3	0	25	4%		
	Total	71	7	21	0	99	4%	87	186
	Peak Hour Factor	0.89	0.44	0.75	0.00	0.92			
	% Trucks	0%	57%	0%	0%	4%			
Approach 3 Beauregard SWB Bearing: 240	17:00 - 17:15	2	394	13	0	409	2%		
	17:15 - 17:30	4	381	16	0	401	1%		
	17:30 - 17:45	4	381	14	1	400	2%		
	17:45 - 18:00	0	379	22	0	401	1%		
	Total	10	1,535	65	1	1,611	2%	961	2,572
	Peak Hour Factor	0.63	0.97	0.74	0.25	0.98			
	% Trucks	0%	2%	0%	0%	2%			
Approach 4 Highview NWB Bearing: 330	17:00 - 17:15	28	0	25	0	53	0%		
	17:15 - 17:30	12	0	12	0	24	0%		
	17:30 - 17:45	11	3	9	0	23	0%		
	17:45 - 18:00	15	0	18	0	33	0%		
	Total	66	3	64	0	133	0%	21	154
	Peak Hour Factor	0.59	0.25	0.64	0.00	0.63			
	% Trucks	0%	0%	0%	0%	0%			
Total Intersection	17:00 - 17:15	52	609	45	0	706	2%		
	17:15 - 17:30	40	589	32	0	661	2%		
	17:30 - 17:45	33	577	33	1	644	2%		
	17:45 - 18:00	41	595	44	0	680	1%		
	Total	166	2,370	154	1	2,691	2%		
	Peak Hour Factor	0.80	0.97	0.86	0.25	0.95			
	% Trucks	0%	2%	0%	0%	2%			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40046	Weather	Clear
Client Site Number	12	Pavement	Dry
Site Name	Beauregard St & Rayburn Ave	Latitude	N 38:49.900
Location	Alexandria, VA	Longitude	W 77:07.442
Survey Date	Thu, 20 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 30	07:00 - 07:15	4	285	14	0	303	2%		
	07:15 - 07:30	11	369	21	0	401	2%		
	07:30 - 07:45	22	360	16	0	398	2%		
	07:45 - 08:00	13	417	21	0	451	3%		
	Total	50	1,431	72	0	1,553	2%	328	1,881
	Peak Hour Factor	0.57	0.86	0.86	0.00	0.86			
% Trucks	2%	2%	1%	0%	2%				
Approach 2 Rayburn SEB Bearing: 135	07:00 - 07:15	17	2	2	0	21	19%		
	07:15 - 07:30	25	2	3	0	30	13%		
	07:30 - 07:45	48	5	2	0	55	5%		
	07:45 - 08:00	38	4	6	0	48	2%		
	Total	128	13	13	0	154	8%	143	297
	Peak Hour Factor	0.67	0.65	0.54	0.00	0.70			
% Trucks	8%	0%	15%	0%	8%				
Approach 3 Beauregard SWB Bearing: 210	07:00 - 07:15	1	64	9	0	74	3%		
	07:15 - 07:30	3	58	18	1	80	3%		
	07:30 - 07:45	3	99	24	0	126	2%		
	07:45 - 08:00	1	89	39	0	129	6%		
	Total	8	310	90	1	409	3%	1,571	1,980
	Peak Hour Factor	0.67	0.78	0.58	0.25	0.79			
% Trucks	0%	2%	8%	0%	3%				
Approach 4 Rayburn NWB Bearing: 315	07:00 - 07:15	0	1	1	0	2	0%		
	07:15 - 07:30	1	0	5	0	6	17%		
	07:30 - 07:45	1	1	5	0	7	0%		
	07:45 - 08:00	3	1	0	0	4	0%		
	Total	5	3	11	0	19	5%	93	112
	Peak Hour Factor	0.42	0.75	0.55	0.00	0.68			
% Trucks	20%	0%	0%	0%	5%				
Total Intersection	07:00 - 07:15	22	352	26	0	400	3%		
	07:15 - 07:30	40	429	47	1	517	3%		
	07:30 - 07:45	74	465	47	0	586	2%		
	07:45 - 08:00	55	511	66	0	632	3%		
	Total	191	1,757	186	1	2,135	3%		
	Peak Hour Factor	0.65	0.86	0.70	0.25	0.84			
% Trucks	6%	2%	5%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40046	Weather	Clear
Client Site Number	12	Pavement	Dry
Site Name	Beauregard St & Rayburn Ave	Latitude	N 38:49.900
Location	Alexandria, VA	Longitude	W 77:07.442
Survey Date	Thu, 20 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 30	17:00 - 17:15	9	169	4	4	186	2%		
	17:15 - 17:30	10	170	3	1	184	1%		
	17:30 - 17:45	11	157	8	0	176	1%		
	17:45 - 18:00	8	154	2	0	164	2%		
	Total	38	650	17	5	710	1%	1,631	2,341
	Peak Hour Factor	0.86	0.96	0.53	0.31	0.95			
% Trucks	3%	1%	0%	0%	1%				
Approach 2 Rayburn SEB Bearing: 135	17:00 - 17:15	34	4	19	0	57	0%		
	17:15 - 17:30	44	0	13	0	57	2%		
	17:30 - 17:45	32	3	22	0	57	4%		
	17:45 - 18:00	44	1	14	0	59	2%		
	Total	154	8	68	0	230	2%	246	476
	Peak Hour Factor	0.88	0.50	0.77	0.00	0.97			
% Trucks	2%	13%	0%	0%	2%				
Approach 3 Beauregard SWB Bearing: 210	17:00 - 17:15	2	339	35	0	376	3%		
	17:15 - 17:30	1	374	47	0	422	2%		
	17:30 - 17:45	0	408	49	1	458	1%		
	17:45 - 18:00	4	362	62	0	428	2%		
	Total	7	1,483	193	1	1,684	2%	823	2,507
	Peak Hour Factor	0.44	0.91	0.78	0.25	0.92			
% Trucks	0%	2%	4%	0%	2%				
Approach 4 Rayburn NWB Bearing: 315	17:00 - 17:15	18	4	7	0	29	3%		
	17:15 - 17:30	18	4	2	0	24	4%		
	17:30 - 17:45	23	3	4	0	30	3%		
	17:45 - 18:00	16	4	5	0	25	4%		
	Total	75	15	18	0	108	4%	32	140
	Peak Hour Factor	0.82	0.94	0.64	0.00	0.90			
% Trucks	0%	27%	0%	0%	4%				
Total Intersection	17:00 - 17:15	63	516	65	4	648	2%		
	17:15 - 17:30	73	548	65	1	687	2%		
	17:30 - 17:45	66	571	83	1	721	1%		
	17:45 - 18:00	72	521	83	0	676	2%		
	Total	274	2,156	296	6	2,732	2%		
	Peak Hour Factor	0.94	0.94	0.89	0.38	0.95			
% Trucks	1%	2%	3%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40047	Weather	Clear
Client Site Number	13	Pavement	Dry
Site Name	Beauregard St & Reading Ave	Latitude	N 38:49.791
Location	Alexandria, VA	Longitude	W 77:07.504
Survey Date	Tue 18 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NB Bearing: 30	07:00 - 07:15	24	273	2	0	299	3%		
	07:15 - 07:30	21	353	0	0	374	2%		
	07:30 - 07:45	36	398	1	0	435	3%		
	07:45 - 08:00	35	364	2	1	402	2%		
	Total	116	1,388	5	1	1,510	3%	365	1,875
	Peak Hour Factor	0.81	0.87	0.63	0.25	0.87			
% Trucks	5%	2%	0%	0%	3%				
Approach 2 Reading EB Bearing: 120	07:00 - 07:15	29	0	9	0	38	3%		
	07:15 - 07:30	37	0	13	0	50	4%		
	07:30 - 07:45	26	0	24	0	50	2%		
	07:45 - 08:00	36	0	22	0	58	5%		
	Total	128	0	68	0	196	4%	140	336
	Peak Hour Factor	0.86	0.00	0.71	0.00	0.84			
% Trucks	1%	0%	9%	0%	4%				
Approach 3 Beauregard SB Bearing: 210	07:00 - 07:15	2	61	1	1	65	2%		
	07:15 - 07:30	2	50	4	2	58	7%		
	07:30 - 07:45	1	87	6	3	97	1%		
	07:45 - 08:00	4	79	3	4	90	3%		
	Total	9	277	14	10	310	3%	1,566	1,876
	Peak Hour Factor	0.56	0.80	0.58	0.63	0.80			
% Trucks	11%	3%	0%	0%	3%				
Approach 4 Reading WB Bearing: 300	07:00 - 07:15	4	3	4	0	11	0%		
	07:15 - 07:30	5	2	10	0	17	6%		
	07:30 - 07:45	3	1	10	0	14	0%		
	07:45 - 08:00	7	4	16	0	27	4%		
	Total	19	10	40	0	69	3%	14	83
	Peak Hour Factor	0.68	0.63	0.63	0.00	0.64			
% Trucks	0%	0%	5%	0%	3%				
Total Intersection	07:00 - 07:15	59	337	16	1	413	2%		
	07:15 - 07:30	65	405	27	2	499	3%		
	07:30 - 07:45	66	486	41	3	596	2%		
	07:45 - 08:00	82	447	43	5	577	3%		
	Total	272	1,675	127	11	2,085	3%		
	Peak Hour Factor	0.83	0.86	0.74	0.55	0.87			
% Trucks	3%	2%	6%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40047	Weather	Clear
Client Site Number	13	Pavement	Dry
Site Name	Beauregard St & Reading Ave	Latitude	N 38:49.791
Location	Alexandria, VA	Longitude	W 77:07.504
Survey Date	Tue 18 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NB Bearing: 30	17:00 - 17:15	48	164	7	0	219	1%		
	17:15 - 17:30	35	144	3	0	182	1%		
	17:30 - 17:45	52	163	6	0	221	2%		
	17:45 - 18:00	40	122	7	0	169	1%		
	Total	175	593	23	0	791	1%	1,598	2,389
	Peak Hour Factor	0.84	0.90	0.82	0.00	0.89			
% Trucks	1%	1%	4%	0%	1%				
Approach 2 Reading EB Bearing: 120	17:00 - 17:15	15	2	17	0	34	6%		
	17:15 - 17:30	16	3	47	0	66	5%		
	17:30 - 17:45	19	3	31	0	53	0%		
	17:45 - 18:00	27	3	31	0	61	3%		
	Total	77	11	126	0	214	3%	255	469
	Peak Hour Factor	0.71	0.92	0.67	0.00	0.81			
% Trucks	0%	9%	5%	0%	3%				
Approach 3 Beauregard SB Bearing: 210	17:00 - 17:15	8	352	12	5	377	2%		
	17:15 - 17:30	4	351	21	4	380	2%		
	17:30 - 17:45	6	404	22	2	434	1%		
	17:45 - 18:00	13	353	18	4	388	1%		
	Total	31	1,460	73	15	1,579	1%	704	2,283
	Peak Hour Factor	0.60	0.90	0.83	0.75	0.91			
% Trucks	0%	2%	0%	0%	1%				
Approach 4 Reading WB Bearing: 300	17:00 - 17:15	2	1	3	0	6	17%		
	17:15 - 17:30	4	0	2	0	6	17%		
	17:30 - 17:45	2	2	7	0	11	9%		
	17:45 - 18:00	4	4	7	0	15	0%		
	Total	12	7	19	0	38	8%	65	103
	Peak Hour Factor	0.75	0.44	0.68	0.00	0.63			
% Trucks	17%	0%	5%	0%	8%				
Total Intersection	17:00 - 17:15	73	519	39	5	636	2%		
	17:15 - 17:30	59	498	73	4	634	2%		
	17:30 - 17:45	79	572	66	2	719	1%		
	17:45 - 18:00	84	482	63	4	633	1%		
	Total	295	2,071	241	15	2,622	2%		
	Peak Hour Factor	0.88	0.91	0.83	0.75	0.91			
% Trucks	1%	1%	3%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40048	Weather	Clear
Client Site Number	14	Pavement	Dry
Site Name	Beauregard St & Roanoke Ave	Latitude	N 38:49.665
Location	Alexandria, VA	Longitude	W 77:07.609
Survey Date	Tue 18 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 60	07:00 - 07:15	0	269	0	1	270	3%		
	07:15 - 07:30	0	353	1	1	355	2%		
	07:30 - 07:45	0	404	0	0	404	3%		
	07:45 - 08:00	0	373	3	0	376	2%		
	Total	0	1,399	4	2	1,405	3%	360	1,765
	Peak Hour Factor	0.00	0.87	0.33	0.50	0.87			
% Trucks	0%	3%	0%	0%	3%				
Approach 2 Entrance to Brookdale SEB Bearing: 150	07:00 - 07:15	0	0	0	0	0	0%		
	07:15 - 07:30	0	0	1	0	1	0%		
	07:30 - 07:45	0	0	0	0	0	0%		
	07:45 - 08:00	0	0	0	0	0	0%		
	Total	0	0	1	0	1	0%	1	2
	Peak Hour Factor	0.00	0.00	0.25	0.00	0.25			
% Trucks	0%	0%	0%	0%	0%				
Approach 3 Beauregard SWB Bearing: 240	07:00 - 07:15	3	72	0	0	75	3%		
	07:15 - 07:30	3	65	0	0	68	7%		
	07:30 - 07:45	6	106	0	0	112	2%		
	07:45 - 08:00	8	106	0	0	114	4%		
	Total	20	349	0	0	369	4%	1,499	1,868
	Peak Hour Factor	0.63	0.82	0.00	0.00	0.81			
% Trucks	0%	4%	0%	0%	4%				
Approach 4 Roanoke NWB Bearing: 325	07:00 - 07:15	0	0	19	0	19	5%		
	07:15 - 07:30	1	1	25	0	27	0%		
	07:30 - 07:45	2	0	21	0	23	0%		
	07:45 - 08:00	5	0	35	0	40	0%		
	Total	8	1	100	0	109	1%	24	133
	Peak Hour Factor	0.40	0.25	0.71	0.00	0.68			
% Trucks	0%	0%	1%	0%	1%				
Total Intersection	07:00 - 07:15	3	341	19	1	364	3%		
	07:15 - 07:30	4	419	27	1	451	3%		
	07:30 - 07:45	8	510	21	0	539	3%		
	07:45 - 08:00	13	479	38	0	530	3%		
	Total	28	1,749	105	2	1,884	3%		
	Peak Hour Factor	0.54	0.86	0.69	0.50	0.87			
% Trucks	0%	3%	1%	0%	3%				

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40048	Weather	Clear
Client Site Number	14	Pavement	Dry
Site Name	Beauregard St & Roanoke Ave	Latitude	N 38:49.665
Location	Alexandria, VA	Longitude	W 77:07.609
Survey Date	Tue 18 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Beauregard NEB Bearing: 60	17:00 - 17:15	0	202	2	2	206	1%		
	17:15 - 17:30	1	177	4	2	184	1%		
	17:30 - 17:45	2	197	2	1	202	2%		
	17:45 - 18:00	0	153	3	4	160	1%		
	Total	3	729	11	9	752	2%	1,509	2,261
	Peak Hour Factor	0.38	0.90	0.69	0.56	0.91			
	% Trucks	33%	2%	0%	0%	2%			
Approach 2 Entrance to Brookdal SEB Bearing: 150	17:00 - 17:15	0	0	0	0	0	0%		
	17:15 - 17:30	0	0	1	0	1	0%		
	17:30 - 17:45	1	0	0	0	1	0%		
	17:45 - 18:00	0	0	0	0	0	0%		
	Total	1	0	1	0	2	0%	3	5
	Peak Hour Factor	0.25	0.00	0.25	0.00	0.50			
	% Trucks	0%	0%	0%	0%	0%			
Approach 3 Beauregard SWB Bearing: 240	17:00 - 17:15	18	341	0	0	359	3%		
	17:15 - 17:30	26	388	0	0	414	2%		
	17:30 - 17:45	30	400	0	0	430	1%		
	17:45 - 18:00	29	364	0	0	393	2%		
	Total	103	1,493	0	0	1,596	2%	792	2,388
	Peak Hour Factor	0.86	0.93	0.00	0.00	0.93			
	% Trucks	0%	2%	0%	0%	2%			
Approach 4 Roanoke NWB Bearing: 325	17:00 - 17:15	1	0	14	0	15	0%		
	17:15 - 17:30	1	0	12	0	13	0%		
	17:30 - 17:45	2	0	18	0	20	0%		
	17:45 - 18:00	2	0	18	0	20	0%		
	Total	6	0	62	0	68	0%	114	182
	Peak Hour Factor	0.75	0.00	0.86	0.00	0.85			
	% Trucks	0%	0%	0%	0%	0%			
Total Intersection	17:00 - 17:15	19	543	16	2	580	2%		
	17:15 - 17:30	28	565	17	2	612	2%		
	17:30 - 17:45	35	597	20	1	653	2%		
	17:45 - 18:00	31	517	21	4	573	2%		
	Total	113	2,222	74	9	2,418	2%		
	Peak Hour Factor	0.81	0.93	0.88	0.56	0.93			
	% Trucks	1%	2%	0%	0%	2%			

**One Hour Summary - 07:00 am - 08:00 am**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40049	Weather	Clear
Client Site Number	15	Pavement	Dry
Site Name	Beauregard St & Sanger Ave	Latitude	N 38:49.584
Location	Alexandria, VA	Longitude	W 77:07.783
Survey Date	Thu, 13 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Sanger SB Bearing: 170	07:00 - 07:15	20	6	14	0	40	8%		
	07:15 - 07:30	19	10	9	0	38	5%		
	07:30 - 07:45	27	16	21	0	64	3%		
	07:45 - 08:00	26	9	18	0	53	9%		
	<b>Total</b>	<b>92</b>	<b>41</b>	<b>62</b>	<b>0</b>	<b>195</b>	<b>6%</b>	<b>206</b>	<b>401</b>
	<b>Peak Hour Factor</b>	<b>0.85</b>	<b>0.64</b>	<b>0.74</b>	<b>0.00</b>	<b>0.76</b>			
	<b>% Trucks</b>	<b>5%</b>	<b>10%</b>	<b>5%</b>	<b>0%</b>	<b>6%</b>			
Approach 2 Beauregard WB Bearing: 250	07:00 - 07:15	18	42	11	0	71	6%		
	07:15 - 07:30	28	50	3	0	81	2%		
	07:30 - 07:45	19	50	14	1	84	2%		
	07:45 - 08:00	31	71	24	0	126	4%		
	<b>Total</b>	<b>96</b>	<b>213</b>	<b>52</b>	<b>1</b>	<b>362</b>	<b>4%</b>	<b>1,469</b>	<b>1,831</b>
	<b>Peak Hour Factor</b>	<b>0.77</b>	<b>0.75</b>	<b>0.54</b>	<b>0.25</b>	<b>0.72</b>			
	<b>% Trucks</b>	<b>0%</b>	<b>6%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>			
Approach 3 Sanger NB Bearing: 340	07:00 - 07:15	22	11	61	0	94	2%		
	07:15 - 07:30	26	11	86	0	123	3%		
	07:30 - 07:45	22	21	78	0	121	2%		
	07:45 - 08:00	30	25	109	0	164	2%		
	<b>Total</b>	<b>100</b>	<b>68</b>	<b>334</b>	<b>0</b>	<b>502</b>	<b>3%</b>	<b>270</b>	<b>772</b>
	<b>Peak Hour Factor</b>	<b>0.83</b>	<b>0.68</b>	<b>0.77</b>	<b>0.00</b>	<b>0.77</b>			
	<b>% Trucks</b>	<b>2%</b>	<b>3%</b>	<b>3%</b>	<b>0%</b>	<b>3%</b>			
Approach 4 Beauregard EB Bearing: 70	07:00 - 07:15	12	210	32	0	254	3%		
	07:15 - 07:30	12	246	24	1	283	3%		
	07:30 - 07:45	18	289	33	1	341	3%		
	07:45 - 08:00	44	297	44	0	385	2%		
	<b>Total</b>	<b>86</b>	<b>1,042</b>	<b>133</b>	<b>2</b>	<b>1,263</b>	<b>3%</b>	<b>377</b>	<b>1,640</b>
	<b>Peak Hour Factor</b>	<b>0.49</b>	<b>0.88</b>	<b>0.76</b>	<b>0.50</b>	<b>0.82</b>			
	<b>% Trucks</b>	<b>3%</b>	<b>2%</b>	<b>7%</b>	<b>0%</b>	<b>3%</b>			
Total Intersection	07:00 - 07:15	72	269	118	0	459	4%		
	07:15 - 07:30	85	317	122	1	525	3%		
	07:30 - 07:45	86	376	146	2	610	3%		
	07:45 - 08:00	131	402	195	0	728	3%		
	<b>Total</b>	<b>374</b>	<b>1,364</b>	<b>581</b>	<b>3</b>	<b>2,322</b>	<b>3%</b>		
	<b>Peak Hour Factor</b>	<b>0.71</b>	<b>0.85</b>	<b>0.74</b>	<b>0.38</b>	<b>0.80</b>			
	<b>% Trucks</b>	<b>3%</b>	<b>3%</b>	<b>4%</b>	<b>0%</b>	<b>3%</b>			

**One Hour Summary - 05:00 pm - 06:00 pm**  
 Vehicle Types: L - LightVehicles (16), H - HeavyVehicles (17)

Count Number	FC40049	Weather	Clear
Client Site Number	15	Pavement	Dry
Site Name	Beauregard St & Sanger Ave	Latitude	N 38:49.584
Location	Alexandria, VA	Longitude	W 77:07.783
Survey Date	Thu, 20 January 2005	Report Period	05:00 pm - 06:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total	% Trucks	Outbound	TOTAL
Approach 1 Sanger SB Bearing: 170	17:00 - 17:15	9	16	12	0	37	5%		
	17:15 - 17:30	21	5	15	0	41	0%		
	17:30 - 17:45	16	16	23	0	55	2%		
	17:45 - 18:00	10	15	25	0	50	4%		
	Total	56	52	75	0	183	3%	207	390
	Peak Hour Factor	0.67	0.81	0.75	0.00	0.83			
% Trucks	0%	6%	3%	0%	3%				
Approach 2 Beauregard WB Bearing: 250	17:00 - 17:15	90	266	16	0	372	3%		
	17:15 - 17:30	94	293	16	1	404	2%		
	17:30 - 17:45	87	273	19	2	381	1%		
	17:45 - 18:00	86	208	27	0	321	2%		
	Total	357	1,040	78	3	1,478	2%	752	2,230
	Peak Hour Factor	0.95	0.89	0.72	0.38	0.91			
% Trucks	1%	2%	1%	0%	2%				
Approach 3 Sanger NB Bearing: 340	17:00 - 17:15	39	12	32	0	83	2%		
	17:15 - 17:30	46	9	44	0	99	0%		
	17:30 - 17:45	44	11	35	0	90	0%		
	17:45 - 18:00	60	12	43	0	115	0%		
	Total	189	44	154	0	387	1%	636	1,023
	Peak Hour Factor	0.79	0.92	0.88	0.00	0.84			
% Trucks	1%	0%	0%	0%	1%				
Approach 4 Beauregard EB Bearing: 70	17:00 - 17:15	18	137	54	0	209	2%		
	17:15 - 17:30	24	131	57	1	213	2%		
	17:30 - 17:45	17	148	47	2	214	0%		
	17:45 - 18:00	26	123	69	0	218	3%		
	Total	85	539	227	3	854	2%	1,307	2,161
	Peak Hour Factor	0.82	0.91	0.82	0.38	0.98			
% Trucks	1%	2%	1%	0%	2%				
Total Intersection	17:00 - 17:15	156	431	114	0	701	3%		
	17:15 - 17:30	185	438	132	2	757	1%		
	17:30 - 17:45	164	448	124	4	740	1%		
	17:45 - 18:00	182	358	164	0	704	2%		
	Total	687	1,675	534	6	2,902	2%		
	Peak Hour Factor	0.93	0.93	0.81	0.38	0.96			
% Trucks	1%	2%	1%	0%	2%				

**One Hour Summary - 07:00 am - 08:00 am**

Vehicle Types: P - Pedestrians (15)

Count Number	FC40049	Weather	Clear
Client Site Number	15	Pavement	Dry
Site Name	Beauregard St & Sanger Ave	Latitude	N 38:49.584
Location	Alexandria, VA	Longitude	W 77:07.783
Survey Date	Thu, 13 January 2005	Report Period	07:00 am - 08:00 am

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Sanger SB Bearing: 170	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	0	0	0	0	0
	07:30 - 07:45	0	0	1	0	1
	07:45 - 08:00	0	0	3	0	3
	Total	0	0	4	0	4
	Peak Hour Factor	0.00	0.00	0.33	0.00	0.33
Approach 2 Beauregard WB Bearing: 250	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	2	0	1	0	3
	07:30 - 07:45	0	0	0	0	0
	07:45 - 08:00	2	0	1	0	3
	Total	4	0	2	0	6
	Peak Hour Factor	0.50	0.00	0.50	0.00	0.50
Approach 3 Sanger NB Bearing: 340	07:00 - 07:15	0	0	0	0	0
	07:15 - 07:30	6	0	1	0	7
	07:30 - 07:45	5	0	1	0	6
	07:45 - 08:00	9	0	0	0	9
	Total	20	0	2	0	22
	Peak Hour Factor	0.56	0.00	0.50	0.00	0.61
Approach 4 Beauregard EB Bearing: 70	07:00 - 07:15	0	0	3	0	3
	07:15 - 07:30	3	0	1	0	4
	07:30 - 07:45	14	0	2	0	16
	07:45 - 08:00	36	0	3	0	39
	Total	53	0	9	0	62
	Peak Hour Factor	0.37	0.00	0.75	0.00	0.40
Total Intersection	07:00 - 07:15	0	0	3	0	3
	07:15 - 07:30	11	0	3	0	14
	07:30 - 07:45	19	0	4	0	23
	07:45 - 08:00	47	0	7	0	54
	Total	77	0	17	0	94
	Peak Hour Factor	0.41	0.00	0.61	0.00	0.44

**One Hour Summary - 02:00 pm - 03:00 pm**  
 Vehicle Types: P - Pedestrians (15)

Count Number	FC40049	Weather	Clear
Client Site Number	15	Pavement	Dry
Site Name	Beauregard St & Sanger Ave	Latitude	N 38:49.584
Location	Alexandria, VA	Longitude	W 77:07.783
Survey Date	Thu, 13 January 2005	Report Period	02:00 pm - 03:00 pm

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Sanger SB Bearing: 170	14:00 - 14:15	0	0	0	0	0
	14:15 - 14:30	0	0	0	0	0
	14:30 - 14:45	12	0	0	0	12
	14:45 - 15:00	0	0	0	0	0
	Total	12	0	0	0	12
	Peak Hour Factor	0.25	0.00	0.00	0.00	0.25
Approach 2 Beauregard WB Bearing: 250	14:00 - 14:15	4	0	6	0	10
	14:15 - 14:30	3	0	2	0	5
	14:30 - 14:45	23	0	2	0	25
	14:45 - 15:00	0	0	0	0	0
	Total	30	0	10	0	40
	Peak Hour Factor	0.33	0.00	0.42	0.00	0.40
Approach 3 Sanger NB Bearing: 340	14:00 - 14:15	3	0	0	0	3
	14:15 - 14:30	7	0	0	0	7
	14:30 - 14:45	2	0	6	0	8
	14:45 - 15:00	0	0	3	0	3
	Total	12	0	9	0	21
	Peak Hour Factor	0.43	0.00	0.38	0.00	0.66
Approach 4 Beauregard EB Bearing: 70	14:00 - 14:15	8	0	1	0	9
	14:15 - 14:30	7	0	4	0	11
	14:30 - 14:45	2	0	25	0	27
	14:45 - 15:00	0	0	2	0	2
	Total	17	0	32	0	49
	Peak Hour Factor	0.53	0.00	0.32	0.00	0.45
Total Intersection	14:00 - 14:15	15	0	7	0	22
	14:15 - 14:30	17	0	6	0	23
	14:30 - 14:45	39	0	33	0	72
	14:45 - 15:00	0	0	5	0	5
	Total	71	0	51	0	122
	Peak Hour Factor	0.46	0.00	0.39	0.00	0.42

**One Hour Summary - 05:00 pm - 06:00 pm**

Vehicle Types: P - Pedestrians (15)

Count Number	<i>FC40049</i>	Weather	<i>Clear</i>
Client Site Number	<i>15</i>	Pavement	<i>Dry</i>
Site Name	<i>Beauregard St &amp; Sanger Ave</i>	Latitude	<i>N 38:49.584</i>
Location	<i>Alexandria, VA</i>	Longitude	<i>W 77:07.783</i>
Survey Date	<i>Thu, 13 January 2005</i>	Report Period	<i>05:00 pm - 06:00 pm</i>

Approach	Period	Left	Thru	Right	U-Turn	Total
Approach 1 Sanger SB Bearing: 170	17:00 - 17:15	1	0	2	0	3
	17:15 - 17:30	0	0	1	0	1
	17:30 - 17:45	0	0	3	0	3
	17:45 - 18:00	0	0	1	0	1
	Total	1	0	7	0	8
	Peak Hour Factor	0.25	0.00	0.58	0.00	0.67
Approach 2 Beauregard WB Bearing: 250	17:00 - 17:15	12	0	3	0	15
	17:15 - 17:30	6	0	0	0	6
	17:30 - 17:45	4	0	5	0	9
	17:45 - 18:00	2	0	0	0	2
	Total	24	0	8	0	32
	Peak Hour Factor	0.50	0.00	0.40	0.00	0.53
Approach 3 Sanger NB Bearing: 340	17:00 - 17:15	8	0	6	0	14
	17:15 - 17:30	0	0	0	0	0
	17:30 - 17:45	2	0	3	0	5
	17:45 - 18:00	0	0	4	0	4
	Total	10	0	13	0	23
	Peak Hour Factor	0.31	0.00	0.54	0.00	0.41
Approach 4 Beauregard EB Bearing: 70	17:00 - 17:15	0	0	2	0	2
	17:15 - 17:30	8	0	6	0	14
	17:30 - 17:45	4	0	2	0	6
	17:45 - 18:00	6	0	6	0	12
	Total	18	0	16	0	34
	Peak Hour Factor	0.56	0.00	0.67	0.00	0.61
Total Intersection	17:00 - 17:15	21	0	13	0	34
	17:15 - 17:30	14	0	7	0	21
	17:30 - 17:45	10	0	13	0	23
	17:45 - 18:00	8	0	11	0	19
	Total	53	0	44	0	97
	Peak Hour Factor	0.63	0.00	0.85	0.00	0.71