

SPEX 1998-0016
ASHBURN CORPORATE CENTER
HOTEL SPECIAL EXCEPTION
LOUDOUN STATION LOT 4A
STATEMENT OF JUSTIFICATION

I. INTRODUCTION AND OVERVIEW

Ashburn Corporate Center, L.C. (the "Applicant") is requesting a special exception to permit a hotel use, in up to two buildings at up to a .4 FAR with a maximum of 240 guest rooms on Lot 4A, under the terms of the 1972 Zoning Ordinance. The proposed hotel use, which may include restaurants, meeting rooms and athletic facilities, will be located on Lot 4A, (the "Property"). The Property is zoned PD-IP (Planned Development - Industrial Park) and is located within the Route 28 Highway Transportation Improvement District and on the north side of Waxpool Road (Route 625), west of Beaumeade Corporate Center and just north of the proposed WorldCom/UUNet site. The Property is identified as Tax Map 79 ((4)) parcel 4 containing approximately 5.98 acres.

The Applicant has also acquired Loudoun Station Lots 1A-3A and 5A and Ashburn Business Park Lots 2-17 and proposes to develop the Ashburn Corporate Center (the "Center") as a single coordinated business park. Two other special exception applications are being filed concurrently on the Ashburn Business Park property and on Lots 1A-3A of the Loudoun Station property requesting office uses up to a .4 FAR and on Lot 5A of Loudoun Station up to 40,000 s.f. of restaurant uses. The proposed hotel and restaurant uses under this special exception will provide an essential commercial support service for the Ashburn Corporate Center.

The Property is surrounded by similar and compatible PD-IP zoning. To the north and west is the Ashburn Business Park property and directly to the west are Lots 1A-3A of the Loudoun Station property. Vacant PD-IP zoned land is located on the south side of Routes 625/640 which is currently proposed for the WorldCom/UUNet site.

II. ZONING

Loudoun Station was rezoned to PD-IP in 1985 and received special exception approval permitting office and warehouse uses under the flex-industrial/office guidelines in 1989 (ZMAP 1985-0014 and SPEX 1988-0055). The Loudoun Station property is governed by the 1972 Zoning Ordinance and the special exception for flex-industrial/office use remains valid.

The Loudoun Station property has been subdivided into seven lots. Lots 1A-3A and 5A are the subject of a concurrent and related special exception application for office and restaurant uses. Lot 6A is being developed separately for mini-warehouse use, and Lot 7A has been acquired for the WorldCom/UUNet development.

Although the Applicant is having discussions with prospective users for the Property, at this time the hotel use is being proposed on a speculative basis. Therefore, a degree of flexibility is proposed with this application. An illustrative plan has been submitted showing a single hotel

building; however, the Applicant would like the flexibility to develop up to two hotel buildings on the Property.

The proposed hotel meets the locational criteria in Section 607.2.4 for the following reasons: (i) it is located in the Business Community area as defined in the General Plan; (ii) it will serve to support other business and employment uses in the Ashburn Corporate Park, AOL and WorldCom/UUNet business campuses and the Route 28 Taxing District; (iii) it is compatible with surrounding land uses and designed as part of a regional office park, with office and restaurant uses planned; (iv) it is located with access to Route 625; and (v) it is not located in an environmentally critical or sensitive area as identified in the Comprehensive Plan.

The proposed hotel use also meets the site development criteria in Section 607.2.4 for the following reasons: (i) the hotel will be served by public water and sewer facilities provided by the Loudoun County Sanitation Authority; (ii) there are no surrounding agricultural, residential or institutional uses requiring a landscape buffer; rather, it is planned as part of a regional office park and is designed to foster interaction with the office and restaurant uses planned for Ashburn Corporate Center; and (iii) the hotel use will meet the parking requirement of one space for each hotel room and each employee; and, of course, all other Zoning Ordinance requirements will be met including screening of off-street parking areas from view of public streets as set forth in Section 722.6.1.

An analysis of the standards for granting a special exception contained in Section 1211.5 of the 1972 Zoning Ordinance is provided in the Attachment to this Statement of Justification.

III. COMPREHENSIVE PLAN

The Property falls within the policies of the General Plan and the Dulles North Area Management Plan ("DNAMP"), which designate the Property as a Business Community area. The Applicant proposes to develop the Loudoun Station property in conjunction with the Ashburn Business Park property as a Regional Office land use group, given its location within the Route 28 Corridor and given the proposed development in the emerging Route 28/ Route 607/Waxpool Road area. This area is the site of the existing and proposed AOL corporate office and research and development uses and the proposed WorldCom/UUNet plans for a major corporate office campus across Waxpool Road. The Ashburn Corporate Center, while predominantly office in nature, does propose a mix of uses as called for in the Plan. Lots 4A and 5A of the Loudoun Station component of the Center will comprise the commercial service component of the project with hotel and restaurant uses proposed. Lot 6A of the Loudoun Station component is being developed as a heavily landscaped, light industrial mini-warehouse use. Lot 1 of the Ashburn Business Park component is being developed as a light flex-industrial/office use by the Westport Corporation.

A wide band of open space is featured along the Smith Switch Road frontage of the Ashburn Business Park property in the form of a stormwater management parcel and a substantial drainage swale. This open space is strategically located to provide an open space buffer for the benefit of the

residential uses on the west side of Smith Switch Road. A pedestrian path system connecting the W&OD Trail with the developing office uses in the Waxpool Road corridor. In addition, the Center is being planned to provide a number of common amenity areas, featuring enhanced landscaping and picnic tables or park benches. The common trail system, open space, and amenity areas comprise approximately 15% of the area Ashburn Corporate Center. These features are included on Sheet 2 of the Special Exception Plat and are featured on the two illustrative sheets (Sheets 3 and 4).

The Applicant will be developing a set of design guidelines and covenants for the Center to assure the high-quality development they envision for Ashburn Corporate Center. Landscaping will be a major component of the Center's design. The approved ZMOD for Ashburn Business Park requires that the parking bays along the public road frontage provide a landscape island for every ten parking spaces, which is being continued on the Loudoun Station portion of the site for continuity. In addition, the planned landscaping will exceed the 20% minimum landscape requirement of the PD-IP district.

IV. TRANSPORTATION

Access to the lots that will comprise the Ashburn Corporate Center will be via a coordinated internal circulation system. Ashburn Corporate Center will have its primary access from a new entrance on Farmwell Road at a planned median crossover across from one of the WorldCom entrances. Waxpool Road/Farmwell Road from Pacific Boulevard to Ashburn Road is classified as a major collector and is planned as a six-lane divided facility. Lot 4A will share an entrance with Lot 3A at a planned crossover on Waxpool Road. The Ashburn Business Park portion of Ashburn Corporate Center has two existing road intersections, at Hastings Drive and Chillum Place with Smith Switch Road, which is classified as a minor collector planned for an ultimate four-lane undivided section. Internal driveways and walkways will provide interparcel access within Ashburn Corporate Center, as well as enhanced pedestrian access.

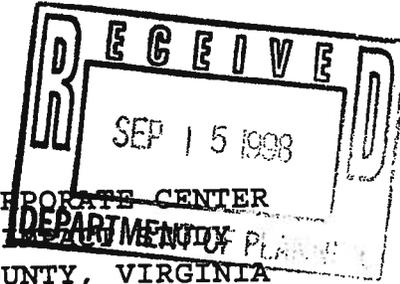
The traffic study has demonstrated that the level of service of the transportation facilities in the vicinity will be at acceptable levels at the time of the projected build-out of the Center and beyond, with the road improvements proposed with this application and of other recent land development approvals in the vicinity. These improvements include the addition of a third through lane in both directions along the Waxpool Road/Farmwell Road frontage, and intersection improvements with funding for signalization at Waxpool Road/Panorama Parkway and Farmwell Road/Smith Switch Road. The improvements for each of the three Waxpool Road/Farmwell Road entrances will be coordinated with improvements for the WorldCom entrances, with funding for signalization provided. Finally, and most significantly, funding for the full-movement, grade-separated interchange at Route 28/Route 625 has been allocated and the interchange is planned to be completed by November 2004.

V. ECONOMIC DEVELOPMENT

Ashburn Corporate Center will be an important component of the emerging high-quality, office market in Loudoun County. The proposed office use will provide a positive economic benefit to the County and will contribute to the critical economic development goal of increasing the County's nonresidential tax base. The proposed hotel use serves as a critical auxiliary use to the office park and provide the land use mix envisioned for Regional Office communities in the General Plan. This use also provides a positive economic benefit to the County. In addition, this use will provide additional needed revenues for the Route 28 Highway Transportation Improvement District, which will serve to accelerate the road improvements, primarily grade-separated interchanges at several of the intersections. The Route 625 interchange at Route 28 is the top priority for improvement in this district, for which VDOT has identified funding and design of the interchange is currently underway.

VI. CONCLUSION

The Ashburn Corporate Center project proposal will develop in accord with the comprehensive plan polices, Zoning Ordinance requirements and economic development policies for this area of Loudoun County. This project will enhance Loudoun's ability to attract significant office users in the emerging office market, and, in particular, the Route 28/Waxpool Road area due to the location of AOL and the WorldCom/UUNet proposal. Ashburn Corporate Center will provide the coordinated development of two previously separate and distinct projects, and will provide consolidated entrances on Waxpool Road/Farmwell Road. The proposed hotel use is a critical component of the office park that will serve to attract prospective users to Ashburn Corporate Center. The Applicant respectfully requests the support of the Planning Commission and the approval by the Board of Supervisors for this project that provides many benefits to Loudoun County. The Applicant thanks staff for their assistance with the review and processing of this application



ASHBURN CORPORATE CENTER
TRAFFIC ~~DEPARTMENT OF PLANNING~~
LOUDOUN COUNTY, VIRGINIA

Prepared for:
Ashburn Corporate Center, L.C.

Prepared by:
Wells & Associates, LLC

July 31, 1998
(Revised September 14, 1998)

ASHBURN CORPORATE CENTER
TRAFFIC IMPACT STUDY
LOUDOUN COUNTY, VIRGINIA

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ASHBURN CORPORATE CENTER
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This traffic impact study was conducted in accordance with the Loudoun County Facilities Standards Manual (FSM) and several meetings with Loudoun County staff. As discussed and agreed to by County staff, this report is to analyze traffic conditions in the year 2003 and 2013, with and without the proposed land uses.

Tasks undertaken for this study included:

1. Meetings with Loudoun County staff and members of the Ashburn Corporate Center planning team to establish the scope (see Appendix A) and analysis parameters for the study.
2. Identification of the number of peak hour trips that would be generated by the proposed special exception uses, based on Institute of Transportation Engineers (ITE) trip generation rates.
3. Determination of future background traffic volumes based on estimates of traffic that will be generated by other approved/planned developments in the site vicinity and background traffic growth for the year 2003.
4. Analysis of future peak hour intersection levels of service, with and without the proposed Ashburn Corporate Center, in the year 2003.
5. Analysis of traffic conditions in the study area in 2013, ten years after completion of Ashburn Corporate Center.
6. Identification of the roadway facilities required to adequately accommodate the planned development in 2003 and 2013.

Sources of data for this analysis included Loudoun County, the Virginia Department of Transportation (VDOT), the Institute of Transportation Engineers (ITE), the Ashburn Corporate Center planning team, and Wells & Associates.

The conclusions of this study are as follows:

1. Future traffic volumes at the key study area intersections will be affected significantly by existing traffic volumes, traffic generated by a number of other approved but incomplete developments, background traffic growth, and traffic generated by the Ashburn Corporate Center development as proposed.
2. It is anticipated that approximately 3.4 million S.F. of non-residential development and nearly 800 residential dwelling units (D.U.) will be developed in the Route 625/640 corridor in the site vicinity by the year 2003 when Ashburn Corporate Center is anticipated to be fully built out. Approximately 4.2 million S.F. of additional non-residential use is anticipated to be developed on the WorldCom site located directly opposite Ashburn Corporate Center.
3. The traffic anticipated to be generated by Ashburn Corporate Center and the 15 other approved area developments can be accommodated by the planned network in both the years 2003 and 2013.
4. The following improvements are required to accommodate traffic generated by the Ashburn Corporate Center development upon buildout in 2003:
 - A. Provision of exclusive right-turn lanes into each of the site entrances on both Smiths Switch Road and Farmwell Road, as may be required by the Virginia Department of Transportation (VDOT).
 - B. Construction of exclusive left-turn deceleration lanes on Smiths Switch Road at both Chillum Place and Hastings Drive, if required by VDOT.
 - C. Provision of two (2) new traffic signals at the intersection of Hastings Drive and Smiths Switch Road and Hastings Drive and Gresham Court when warranted by VDOT.

- D. Contribution towards the construction of an additional left-turn lane on both the east and westbound Farmwell Road approaches at the Smiths Switch Road intersection. This will result in the provision of dual lefts on both approaches of Farmwell Road. Dual lefts are necessary at this location in order to minimize conflicts with forecasted heavy eastbound and westbound through traffic and to facilitate the (re)allocation of green time.
 - E. Construction of the site entrances on Farmwell Road (Route 640) to provide for a minimum one (1) inbound and two (2) outbound lanes.
 - F. A pro-rata contribution towards the provision of a traffic signal at each site entrance on Route 640 when warranted by VDOT.
 - G. Contribution towards construction of a third westbound through lane on Route 640 along the site's frontage.
 - H. Re-stripe the northbound approach at the Panorama Parkway/Route 640 intersection to provide for dual northbound left turn lanes, two (2) northbound through lanes, and a single free-flow right turn lane.
5. No additional roadway improvements other than those recommended for the year 2003 are required to serve the forecasted total future 2013 traffic volumes.

BACKGROUND DATA

Existing Traffic Volumes

AM and PM peak period traffic turning movement counts were conducted from 6:00 AM to 9:00 AM, and from 4:00 PM to 7:00 PM, on Thursday, November 13, 1997, Thursday, February 19, 1998, and Tuesday, April 21, 1998 by Wells & Associates at six (6) key area intersections as listed below:

1. Route 640 (Farmwell Road)/Smiths Switch Road (Old Route 607),
2. Route 640 (Farmwell Road)/Route 625 (Waxpool Road),
3. Route 625 (Waxpool Road)/Panorama Parkway (Route 607),
4. Old Route 607 (Smiths Switch Road)/Hastings Road,
5. Old Route 607 (Smiths Switch Road)/Chilum Drive, and
6. Old Route 607 (Smiths Switch Road)/Panorama Parkway.

The results of these counts are presented in Appendix B and summarized on Figure 2.

Existing Public Road Network

The subject site is generally located north of Route 625/640, west of Broad Run, and east of the proposed East Spine Road (Ashburn Village Boulevard). Based on a field evaluation, no hazardous locations were observed in the study area. Figure 3 illustrates the existing intersection lane usage and traffic control in the site vicinity.

Route 640 (Farmwell Road) is currently a four-lane, median-divided roadway with STOP sign controlled intersections at Route 625 (Waxpool Road), Smiths Switch Road, and Panorama Parkway.

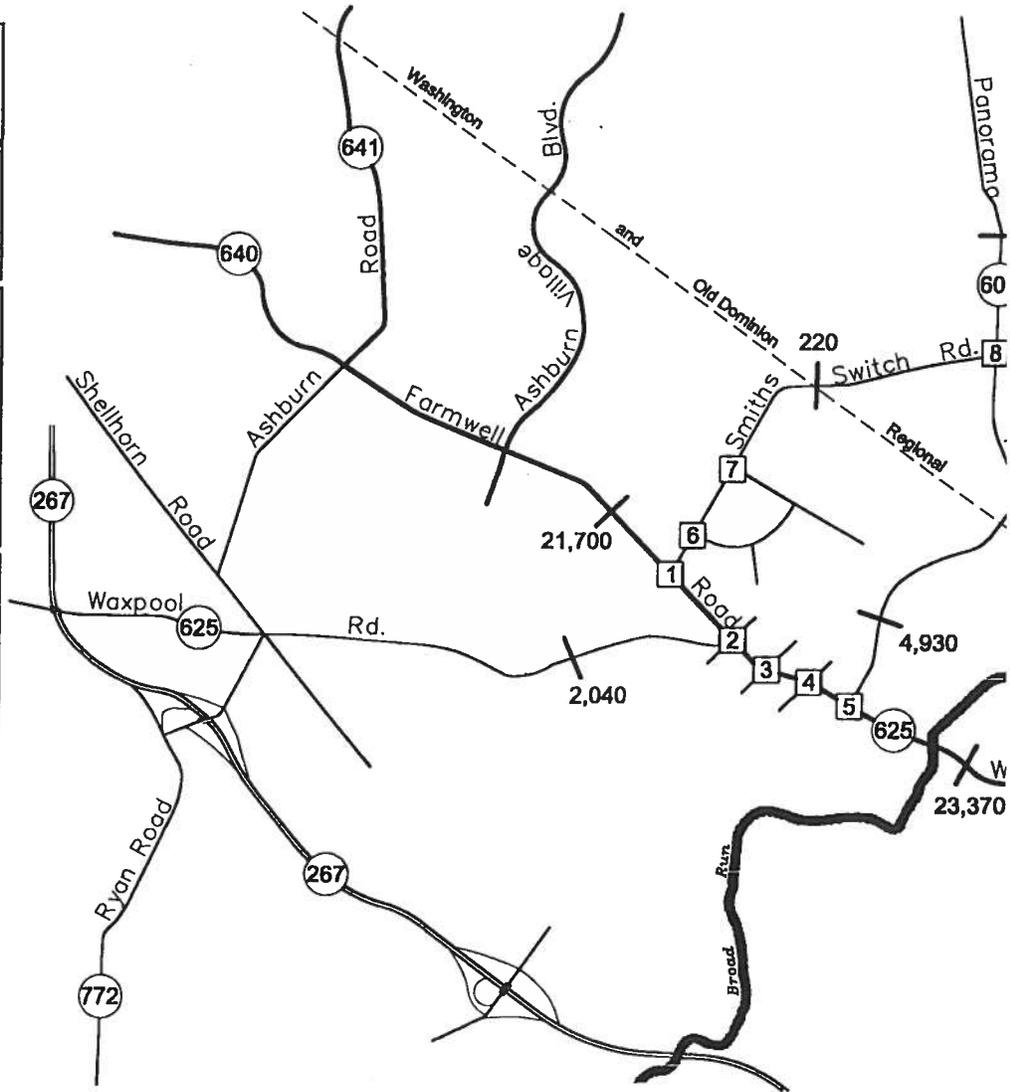
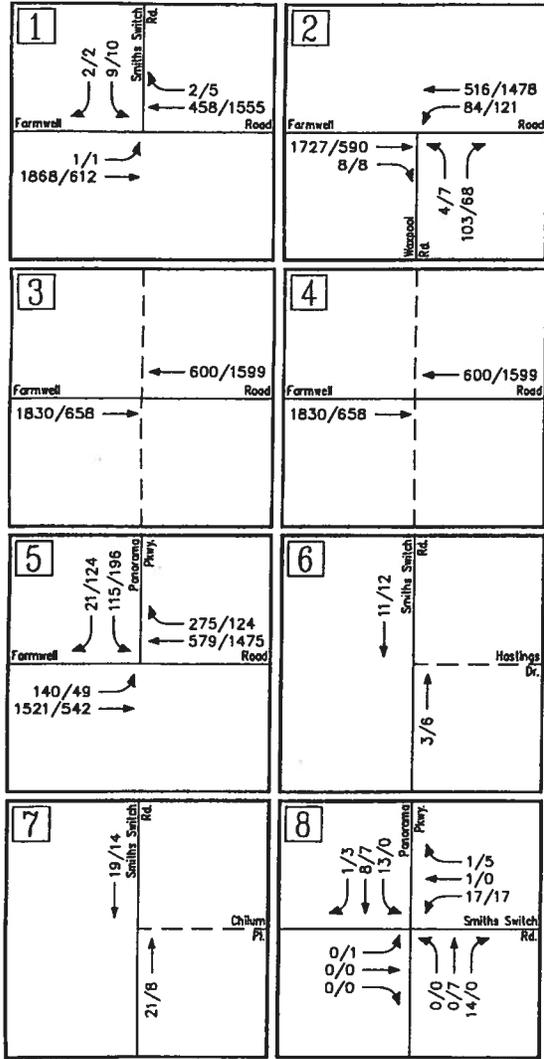


Figure 2
Existing Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

Ashburn Corporate Center
Loudoun County, Virginia



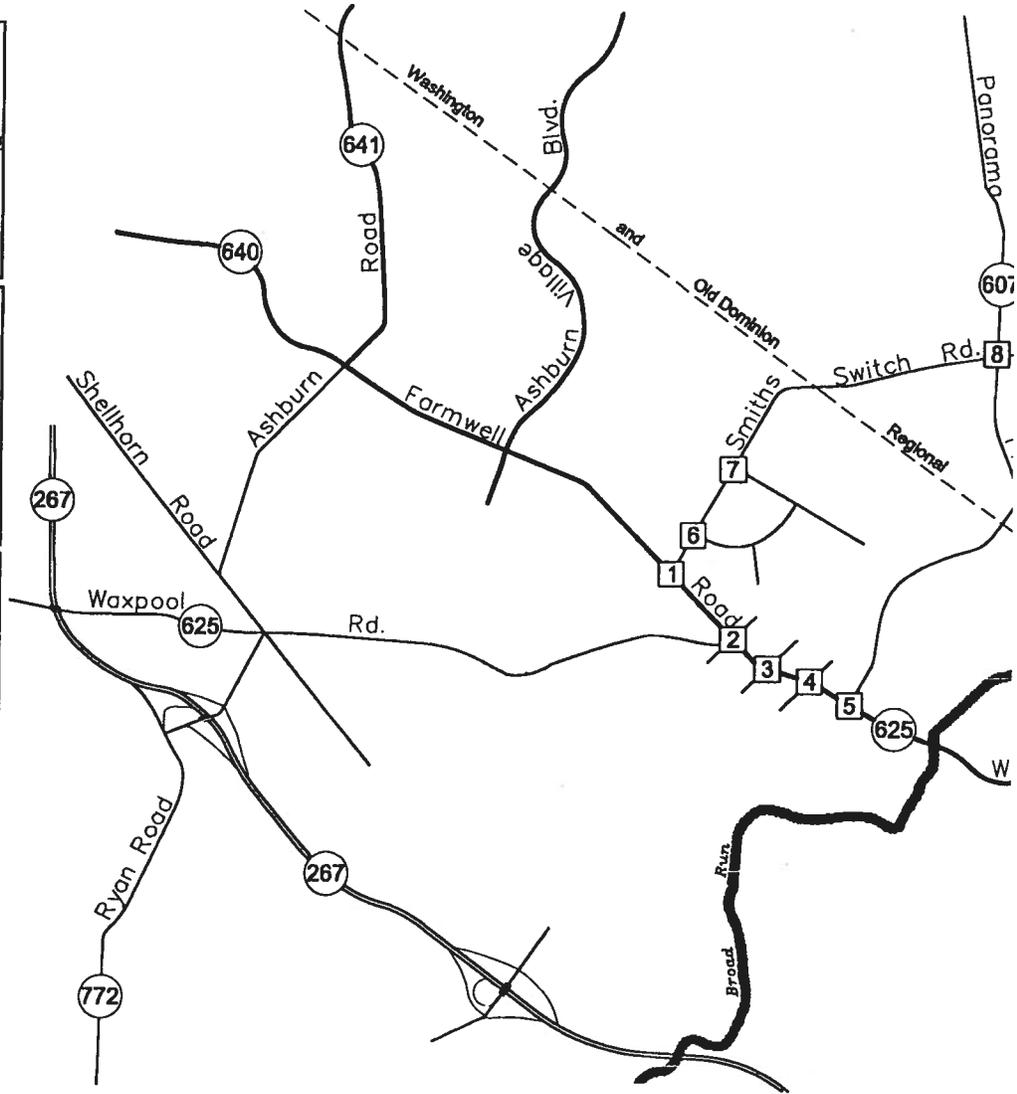
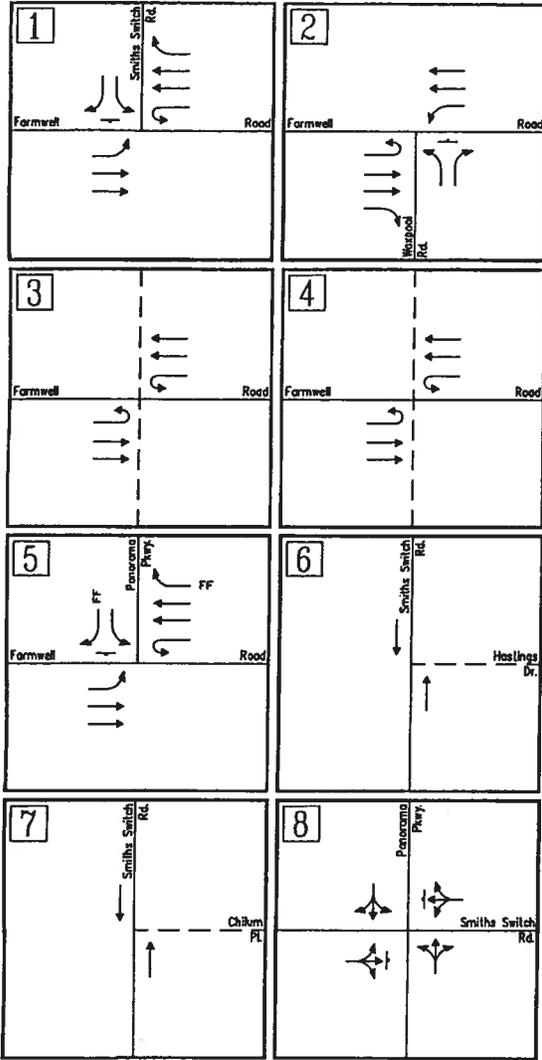


Figure 3
Existing Lane Use and Traffic Control

- ← Represents One Tr
- ⊗ Signalized Intersect
- Stop Sign
- FF Free Flow

Ashburn Corporate Center
Loudoun County, Virginia



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Route 625 (Waxpool Road) is currently a two-lane, minor collector road west of its intersection with Route 640. East of this intersection, Route 625 shares the same alignment with Route 640 and exists as a four-lane, median-divided, major collector roadway to Route 28.

Smiths Switch Road (Old Route 607) is currently a two-lane, rural secondary road, which is controlled by a STOP sign at its intersection with Route 640.

Panorama Parkway (Route 607) is currently a four-lane, discontinuous, minor arterial which is controlled by a STOP sign at Route 625.

Future Transportation Network

The Countywide Transportation Plan (CTP), adopted by the Loudoun County Board of Supervisors on July 5, 1995, recommends a number of major road improvements which affect access to the study area. The following provides a detailed description of these future improvements:

Route 607 (Panorama/Loudoun Parkway) is ultimately planned to be extended south to Route 50 at its intersection with the Tri-County Parkway. The Loudoun Parkway will be completed as a six-lane, median-divided, minor arterial within a 120 foot wide right-of-way. Exclusive left and right-turn deceleration lanes are required at major at-grade intersections and a design speed of 50 miles per hour (mph) is recommended. Grade separated interchanges are proposed for the intersections of Route 7, the Greenway, and Route 50 at the Tri-County Parkway.

Route 625 (Waxpool Road) is planned to be upgraded to a controlled access, urban collector and constructed to provide four (4) lanes with right and left-turn deceleration lanes at all intersections between Belmont Ridge Road (Route 659) and Farmwell Road. The County Transportation Plan Map depicts a (re)alignment of a section of Waxpool Road in order to align opposite Smiths

Switch Road. A full-movement, grade-separated interchange is planned to be completed at the intersection of Route 28 and Route 625 by November 2004.

Route 640 (Farmwell Road) is planned to be ultimately improved to a six-lane, median-divided, major collector. It will be completed within a 120 foot wide right-of-way with exclusive left and right turn lanes provided at all intersections and designed for 50 miles per hour.

Old Route 607 (Smiths Switch Road) is planned to be improved to a four-lane, undivided, urban collector within a 70 foot wide right-of-way. Left and right-turn lanes are recommended at major intersections.

Figure 4, depicts the future planned transportation network within the subject site vicinity, as reflected by the CTP.

Programmed Transportation Improvements

Approximately \$18.1 million in Primary Road Improvement Program funds has been programmed for the interchange at Route 28 and Route 625 by the Commonwealth Transportation Board (CTB).

Improvements By Others

The subject site is located on the north side of Route 640/625, just west of Panorama Parkway. During the last year, several major zoning actions have either been approved, or initiated, within the immediate site vicinity.

On the south side of Route 640/625, a rezoning was recently approved by the Loudoun County Board of Supervisors to develop the WorldCom Northern Virginia Campus (532 acres). In conjunction with the development of the WorldCom site, a number of transportation improvements have been identified as required to accommodate the traffic associated with WorldCom by the year 2003.

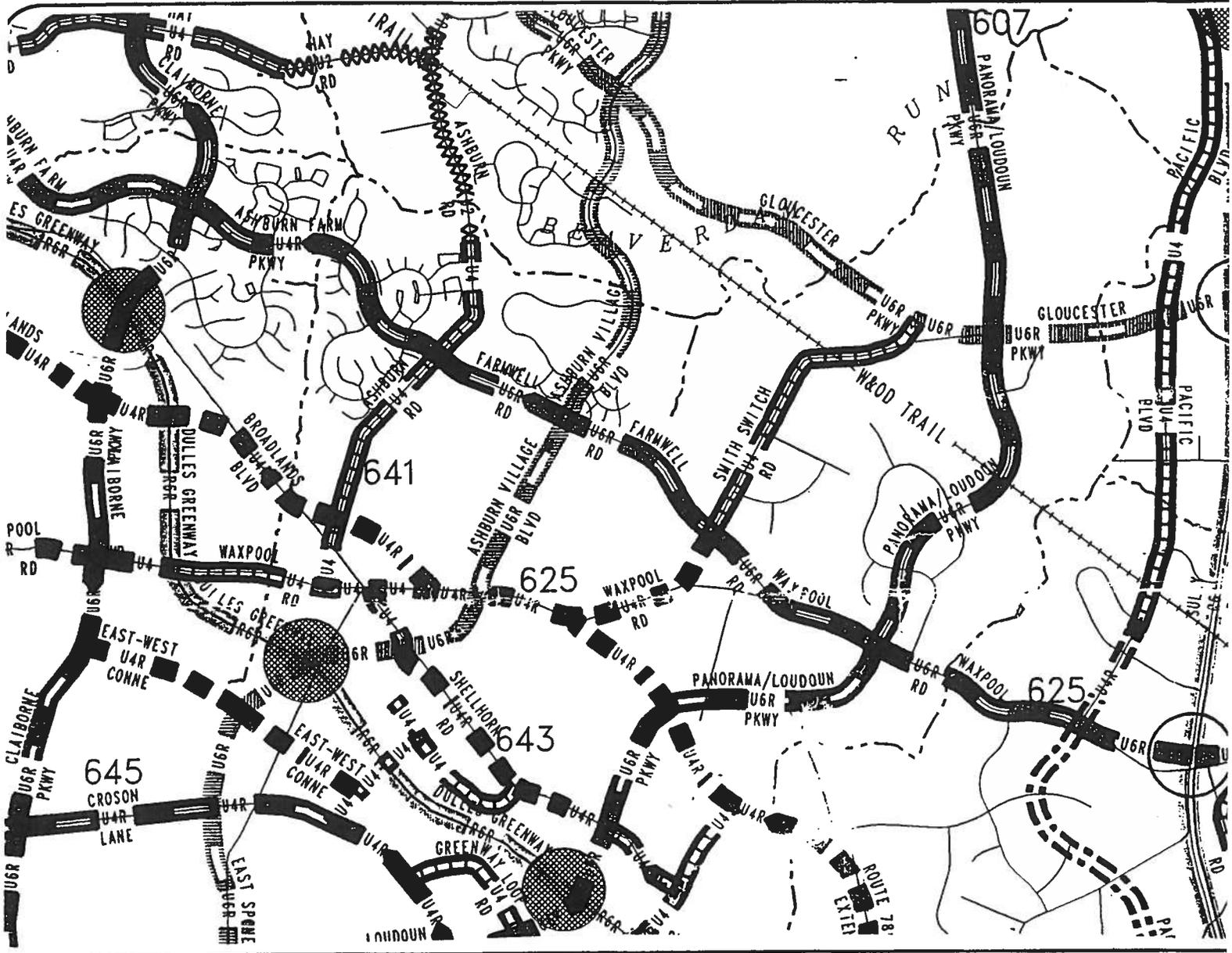


Figure 4
Countywide Transportation Plan Excerpt

ROADWAY GEOMETRY

- U = URBAN (Curb & Gutter)
- R = RURAL (Shoulder)
- R = RAISED MEDIAN
- 2 4 6 8 = TOTAL LANE WIDTH

Ashburn Corporate Center
Loudoun County, Virginia

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The WorldCom related improvements, as they apply to the Ashburn Corporate Center study area included the following:

- A. Extend Route 607 (Panorama Parkway/Loudoun Parkway) southward to Route 643 with a six (6) lane cross-section and separate left and right turn lanes at each WorldCom driveway and at all major intersections. The northbound approach at Panorama Parkway and Route 625 should provide for exclusive right and left turn lanes and three (3) northbound through lanes.
- B. Re-stripe the southbound approach on Panorama Parkway at Route 625 to accommodate two (2) through lanes and an exclusive left turn lane; construct an eastbound right turn lane and an additional westbound left turn lane on Route 625.
- C. Construct a third eastbound through lane along the site frontage on Farmwell Road/Waxpool Road.
- D. Construct separate left and right turn lanes into each WorldCom driveway on Route 625.
- E. Contribute toward new traffic signals at the intersection of Route 625 with WorldCom Driveways located opposite the entrances to the Loudoun Station Lots.

The above improvements are scheduled to be implemented by 2003. The WorldCom traffic study also recommended the following improvement to be implemented at the intersection of Panorama Parkway and Route 625 by 2008:

- A. Re-stripe the northbound approach to provide for dual northbound left turn lanes, two (2) northbound through lanes, and an exclusive northbound right turn lane.

In the southwest quadrant of the Smiths Switch Road/Farmwell Road intersection, a special exception establishing a private school of general education was recently approved by the Loudoun County Board of Supervisors. The following transportation improvements were committed to by the Islamic Saudi Academy in conjunction with this special exception:

- A. Contribution towards signalization of the Route 640/Smiths Switch Road intersection up to 100%,
- B. (Re)alignment and (re)construction of Waxpool Road (Route 625) as a four-lane, median-divided, urban section opposite Smiths Switch Road.

In the northwest quadrant of the Old Route 607/Route 640 intersection, an ice rink was approved by the Loudoun County Board last year. As a condition of approval, the ice rink committed to the following improvements:

- A. A contribution of \$18,000 towards signalization of the Route 640/Smiths Switch Road intersection.
- B. Construction of a left-turn bay into the site entrance on Smiths Switch Road.

In addition to the site specific improvements discussed above, the traffic impact study submitted with the pending WorldCom application(s) lists a number of transportation improvements which should be provided by the year 2003, in order to accommodate the traffic generated by "other" background developments. These area wide improvements, as follows, would be required without the development of either WorldCom or Ashburn Corporate Center:

- A. Install new traffic signals at the following intersections:
 - 1. Route 640/Smiths Switch Road, and
 - 2. Route 625/Panorama Parkway.

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- B. A full-movement, grade-separated interchange will be required at the Route 28/Route 625 junction in order to achieve acceptable peak hour levels of service in 2004.

Unless otherwise specified, this analysis assumed that all of the above improvements will be provided by others by the year 2004. These improvements are summarized and presented on Figure 5.

Site Access Concept

Access to the lots which will comprise the Ashburn Corporate Center will be via a coordinated internal circulation system. Additionally, three (3) new entrances will be provided on Route 640/625. These entrances will be located at existing median break locations on Route 640/625. No new entrances are proposed on Smiths Switch Road. These entrances are depicted on the conceptual site plan in Figure 6.

Other Approved Developments

Other Projects. This traffic study takes into explicit account the traffic anticipated to be generated by 15 other approved, but incomplete, development projects. These projects include the following:

1. Farmwell Hunt,
2. Collier Property,
3. Cameron Close,
4. Ashburn Center North,
5. Beaumeade,
6. WorldCom Northern Virginia Campus,
7. Ryan Park Center,
8. Regency,
9. Dulles Parkway Center,

10. Dulles Berry,
11. Dulles 28 Center,
12. Broad Run Center,
13. Nattak,
14. Loudoun Parkway Center, and
15. Loudoun Crest School.

The location of each project is shown on Figure 7.

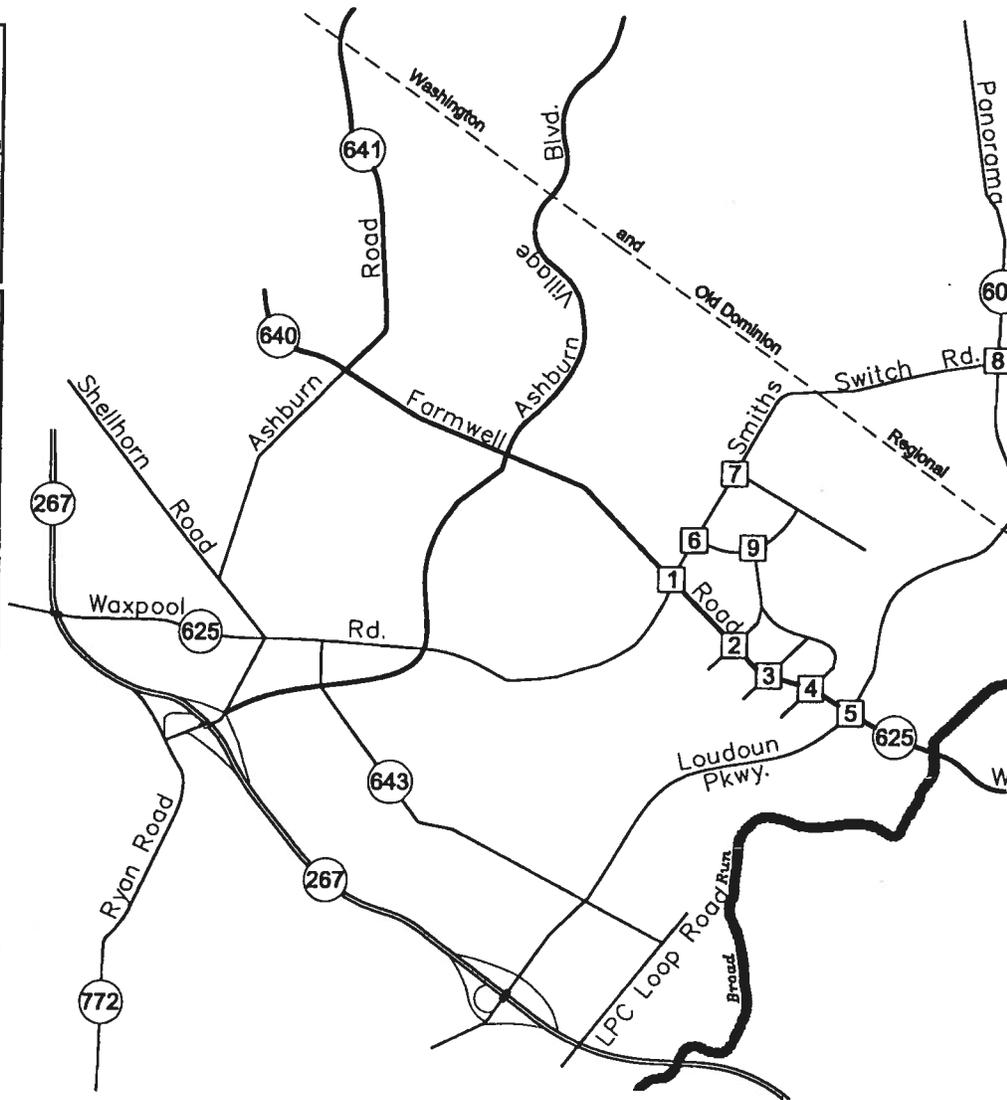
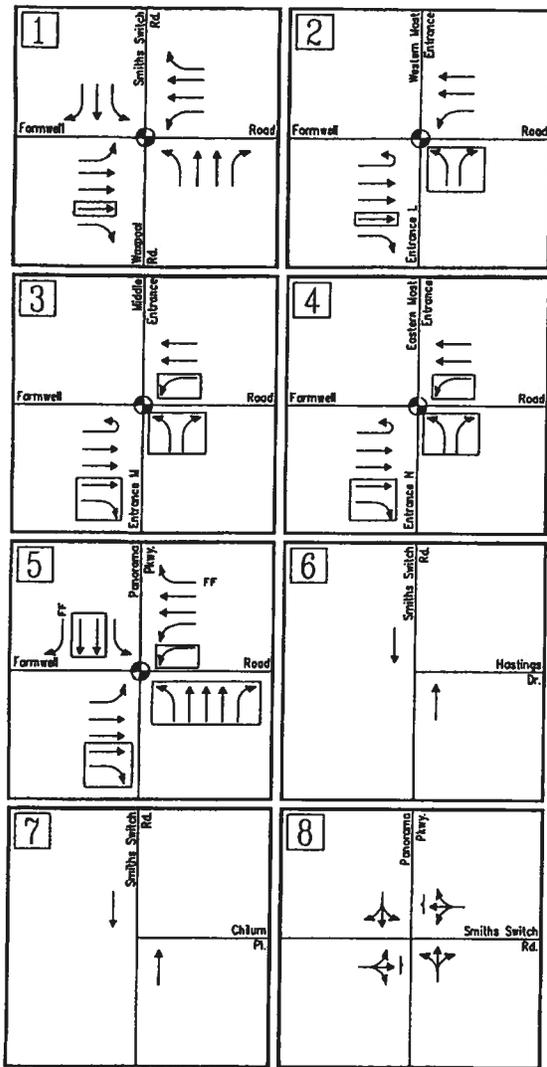


Figure 5
 Future Lane Use and Traffic Control by Others

- ← Represents One Travel
- ⊗ Signalized Intersection
- Stop Sign
- FF Free Flow
- ▭ Future Road Improvement

Ashburn Corporate Center
 Loudoun County, Virginia



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- 1 Farmwell Hunt
- 2 Collier Property
- 3 Cameron Chase
- 4 Ashburn Center North
- 5 Beaumeade
- 6 Worldcom Northern Virginia Campus
- 7 Ryan Park Center
- 8 Regency
- 9 Dulles Parkway Center
- 10 Dulles Berry
- 11 Dulles 28 Center
- 12 Broad Run Center
- 13 Nattak
- 14 Loudoun Parkway Center
- 15 Loudoun Crest School

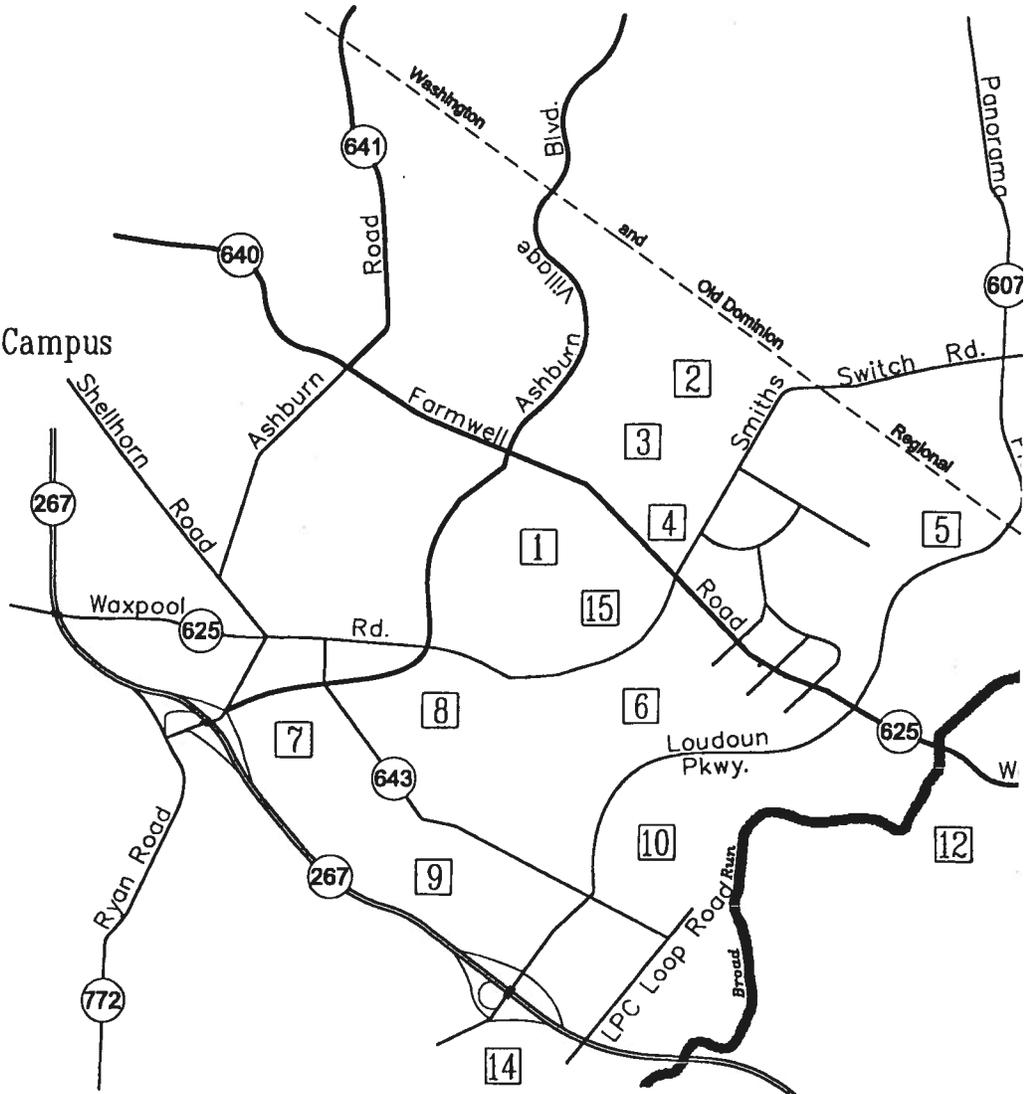


Figure 7
Location of Background Developments

Ashburn Corporate Center
Loudoun County, Virginia



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Development Programs. The existing zoning and approved level of development on each of these sites, with the exception of WorldCom, is shown in Table 1. This table indicates that these projects are approved for up to 25,247,400 S.F. of commercial development and 1,226 units of non-commercial development upon completion.

Year 2003 Development Levels. The level of development in 2003, at each of these other approved developments was estimated based on the Zurn Initiative, local knowledge, and discussions with Loudoun County staff.

Table 2 shows the level (and percentage) of additional approved commercial and residential development expected to be built within the Dulles North Routes 7/28 subarea by 2003, and 2013, according to the Zurn Initiative. This table shows that commercial development is expected to increase by 3,070,165 S.F. over 1994 development levels, by 2003 in the Dulles North Routes 7/28 subarea. These development forecasts are 3.12 percent of the approved commercial development. Similarly by 2013, commercial development will increase by 6,527,061 S.F. over 1994 levels.

The additional development forecasted in the Dulles North Route 7/28 subarea was apportioned to all projects in these subareas according to the level of approved development in each project.

A summary of the levels of development anticipated for these projects is shown in Table 1. These projects are anticipated to include the following levels of development:

2003:	Non-residential:	3,349,542 S.F.
	Residential:	796 D.U.
2013:	Non-residential:	4,331,697 S.F.
	Residential:	1,119 D.U.

Table 1
Ashburn Corporate Center
Background Development Potential

Project	Land Use	Development Program	Existing Development	Remaining Development Potential	Development 2003
<u>1. Farmwell Hunt (1)</u>	Single-Family Detached	314 D.U.	NA	314 D.U.	129 D.U.
	Townhouses	363 D.U.	NA	363 D.U.	168 D.U.
	Subtotal	677 D.U.		677 D.U.	297 D.U.
<u>2. Beauneade (1)</u>	Research Center (R&D)	3,450,000 S.F.	- S.F.	3,450,000 S.F.	195,000 S.F.
	Office	4,250,000 S.F.	800,000 S.F.	3,450,000 S.F.	195,000 S.F.
	Subtotal	7,700,000 S.F.	800,000 S.F.	6,900,000 S.F.	390,000 S.F.
<u>3. Ashburn Center North (2)</u>	Ice Rink	2 Sheets	-	2 Sheets	2 Sheets
	High-Turnover Restaurant	8,000 S.F.	-	8,000 S.F.	8,000 S.F.
	Research Center (R&D)	156,000 S.F.	-	156,000 S.F.	156,000 S.F.
<u>4. Ryan Park Center (3)</u>	Apartments	150 D.U.	-	150 D.U.	146 D.U.
	Townhouses	190 D.U.	-	190 D.U.	185 D.U.
	Subtotal	340 D.U.		340 D.U.	331 D.U.
<u>5. Regency (Glenwood West) (1)</u>	Shopping Center	235,000 S.F.	-	235,000 S.F.	91,200 S.F.
	Hotel	148 Rooms	-	148 Rooms	- Rooms
	Office	300,000 S.F.	-	300,000 S.F.	- S.F.
<u>6. Collier Property (1)</u>	Single-Family Detached	143 D.U.	41 D.U.	102 D.U.	102 D.U.
<u>7. Cameron Chase (1)</u>	Research Center (R&D)	75,000 S.F.	-	75,000 S.F.	22,500 S.F.
<u>8. Loudoun Crest School (1)</u>	Single-Family Detached	66 D.U.	-	66 D.U.	66 D.U.
<u>9. Loudoun Crest School (1)</u>	School	3,500 Students	-	3,500 Students	3,500 Students
<u>9. Broad Run Business Park (4) (5)</u>	Office	5,000,000 S.F.	1,340,000 S.F.	3,660,000 S.F.	415,640 S.F.
	Research & Development				123,796 S.F.
	Flight Training Center				59 Emp
<u>10. Nattak (5)</u>	Shopping Center	1,200,000 S.F.	-	1,200,000 S.F.	37,440 S.F.
<u>11. Dulles Berry (5)</u>	Office	1,570,000 S.F.	-	1,570,000 S.F.	48,984 S.F.
<u>12. Loudoun Parkway Center (5)</u>	Office	3,106,000 S.F.	-	3,106,000 S.F.	96,907 S.F.
<u>13. Dulles Parkway Center (5)</u>	Office	2,600,000 S.F.	-	2,600,000 S.F.	81,120 S.F.
<u>14. Dulles 28 Center (5)</u>	Retail	1,503,000 S.F.	170,900 S.F.	-	-
TOTAL		25,247,400 S.F.	2,310,900 S.F.	21,687,955 S.F.	3,349,542 S.F.
		1,226 D.U.	- D.U.	1,185 D.U.	796 D.U.

NOTES:

1. Development level based on information provided in Loudoun Crest report, Wells & Associates, LLC, September 9, 1997.
2. Development level based on information provided in Ashburn Ice Rink study, Wells & Associates, LLC.
3. Development level based on Ryan Park Center report, PHRA, April, 1996.
4. Development level based on British Aerospace report, Wells & Associates, LLC, February 17, 1995.
5. Development level based on Fiscal Impacts of Service Plans and Estimates, Board of Supervisors Finance Committee, September 1, 1994.

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Table 2
 Ashburn Corporate Center
 Commercial Development Forecasts in the Dulles North Route 7/28 Subarea

Measure	Dulles Route Suba
Development Potential	98,285
Existing 1994 Development	3,215,
<u>Additional Development</u>	
2003 (intermediate growth scenario)	3,070,
2013 (intermediate growth scenario)	6,527,
<u>Percent of Development Potential</u>	
2003	3.1
2013	6.6

Source: Fiscal Impacts of Service Plans and Estimates, Board of Supervisors Finance Committee, September

The project-by-project development forecasts shown in Table 1 were prepared for the sole purpose of reasonably estimating background traffic volumes in the study area. They do not constitute an independent economic forecast for the Dulles North Routes 7/28 subarea. Individual projects may develop at a faster or slower pace than forecasted here. The background traffic forecasts contained herein will still pertain, to the extent that the overall development levels and general distribution assumptions pertain.

WorldCom Northern Virginia Campus. Recently, as discussed earlier in this report, the Loudoun County Board of Supervisors approved a rezoning in order to develop the WorldCom site. According to the traffic impact study submitted by the applicant(s) in conjunction with their zoning actions, WorldCom anticipates complete buildout by the year 2008 to include:

- a. 4,683,840 GSF of office park,
 - b. 1,800,000 GSF of research and development,
 - c. 430,000 GSF of hotel (500 rooms),
 - d. 323,360 GSF support and complementary uses, and
 - e. 30,000 GSF restaurants.
- Total: 7,267,200 GSF

The study also reflects that by the year 2003, the following uses will have been established:

- a. 1,950,000 S.F. of office park,
 - b. 1,800,000 S.F. of research and development,
 - c. 180,000 S.F. hotel (200 rooms),
 - d. 220,000 S.F. supportive and complementary uses,
 - e. 20,000 S.F. restaurants.
- Total: 4,170,000 S.F.

The traffic volumes anticipated to be generated by these WorldCom development levels have been included in the development of background trips for the Ashburn Corporate Center analysis.

Traffic Generated by Other Approved Developments

The number of trips generated in 2003, and 2013 by the 14 other approved but incomplete developments (excluding WorldCom) included in this study are summarized in Tables 3, and 4. These tables show that these other projects will generate a total of 3,609 to 3,913 peak hour trips in 2003; and 5,492 to 6,181 peak hour trips in 2013, based on standard ITE trip generation rates.

These trips were then assigned to the surrounding roadway network based on existing traffic counts, other recent traffic analyses, and system constraints.

The net volume of trips anticipated to be generated by the WorldCom development in the years 2003 and 2008 are depicted on Tables 5 and 6. As shown on Table 5, in the year 2003 4,805 to 4,811 peak hour trips will be generated by the WorldCom project. Similarly in the year 2008, 6,870 to 7,506 peak hour trips will be generated. These trip rates include the various reductions applied to the WorldCom development to account for internal, pass-by, and TDM trips as discussed in the WorldCom traffic impact assessment.

Table 3
 Ashburn Corporate Center
 Other Approved Development Trip Generation Analysis for Year 2003 (1)

Development	ITE Land Use Code	Year 2003 Program		AM Peak Hour			PM Peak Hour			Average Daily Traffic
		Amount	Units	In	Out	Total	In	Out	Total	
Farmwell Hunt (2)										
Single-Family Detached	210	129	D.U.	25	75	100	86	49	135	1,312
Townhouses	230	168	D.U.	13	64	77	63	31	94	1,014
Subtotal		297	D.U.	38	139	177	149	80	229	2,326
Beaumeade (2)										
Research Center (R&D)	760	195,000	S.F.	203	41	244	35	197	232	1,772
Office	710	195,000	S.F.	280	38	318	51	247	298	2,216
Subtotal		390,000	S.F.	483	79	562	86	444	530	3,988
Ashburn Center North (3)										
Ice Rink	-	2	Sheets	10	3	13	11	96	207	2,070
High-Turnover Restaurant	832	8,000	S.F.	38	36	74	52	35	87	1,043
Research Center (R&D)	760	156,000	S.F.	167	34	201	29	164	193	1,475
Subtotal				215	73	288	92	295	487	4,588
Ryan Park Center										
Apartments	220	146	D.U.	12	62	74	61	30	91	1,009
Townhouses	231	185	D.U.	21	65	86	55	42	97	1,610
Subtotal		331	D.U.	33	127	160	116	72	188	2,619
Shopping Center	820	91,200	S.F.	92	59	151	361	230	591	6,425
Shopping Center Passby (4)				14	9	23	54	35	89	964
Retail External Trips				78	50	128	307	196	502	5,461
Regency (Glenwood West) (2)										
Single-Family Detached	210	102	D.U.	20	61	81	70	39	109	1,056
Collier Property (2)										
Research Center (R&D)	760	22,500	S.F.	31	6	37	6	32	38	299
Cameron Chase (2)										
Single-Family Detached	210	66	D.U.	14	42	56	47	27	74	707
Loudoun Crest School (2)										
School	-	3,500	Students	585	130	715	72	177	249	4,153
Broad Run Business Park										
General Business Office	710	415,640	S.F.	510	70	580	93	452	545	3,964
Research & Development	760	123,796	S.F.	136	28	164	24	135	159	1,219
Flight Training Center (5)	-	59	Employees	95	36	131	36	95	131	1,310
Subtotal				741	134	875	153	682	835	6,493
Nattak (6)										
Shopping Center	820	37,440	S.F.	54	35	89	200	128	328	3,624
Shopping Center Passby (15%)				3	2	5	30	19	49	544
Retail External Trips				51	33	84	170	109	279	3,080
Dulles Berry (6)										
General Business Office	710	48,984	S.F.	93	13	106	23	111	134	767
Loudoun Parkway Center (6)										
General Business Office	710	96,907	S.F.	160	22	182	32	156	188	1,295
Dulles Parkway Center (6)										
General Business Office	710	81,120	S.F.	139	19	158	29	141	170	1,130
TOTAL				2,681	928	3,609	1,352	2,561	3,913	37,962

- NOTES:
1. Trip rates based on Trip Generation, Sixth Edition, The Institute of Transportation Engineers (ITE) unless otherwise noted.
 2. Development level and school trip rates based on information provided in Loudoun Crest report, Wells & Associates, LLC, September 9, 1997.
 3. Development level based on information provided in Ashburn Ice Rink study, Wells & Associates, LLC.
 4. Development level and shopping center passby rate of 15% based on Ryan Park Center report, PHR&A, April, 1996.
 5. Development level and trip rates for training facility based on British Aerospace report, Wells & Associates, LLC, February 17, 1995.
 6. Development level based on Fiscal Impacts of Service Plans and Estimates, Board of Supervisors Finance Committee, September 1, 1994.

Table 4
 Ashburn Corporate Center
 Other Approved Development Trip Generation analysis for Year 2013 (1)

Development	ITE Land Use Code	Year 2013 Program		AM Peak Hour			PM Peak Hour			Average Daily Traffic
		Amount	Units	In	Out	Total	In	Out	Total	
Farmwell Hunt (2)										
Single-Family Detached	210	288	D.U.	53	158	211	178	100	278	2,743
Townhouses	230	323	D.U.	22	107	129	109	53	162	1,763
Subtotal		611	D.U.	75	265	340	287	153	440	4,506
Beaumeade (2)										
Research Center (R&D)	760	345,000	S.F.	334	68	402	56	317	373	2,836
Office	710	345,000	S.F.	440	60	500	79	387	466	3,435
Subtotal		690,000	S.F.	774	128	902	135	704	839	6,271
Ashburn Center North (3)										
Ice Rink	-	2	Sheets	10	3	13	11	96	207	2,070
High-Turnover Restaurant	832	8,000	S.F.	38	36	74	52	35	87	1,043
Research Center (R&D)	760	156,000	S.F.	167	34	201	29	164	193	1,475
				215	73	288	92	295	487	4,588
Ryan Park Center										
Apartments	220	150	D.U.	12	65	77	62	31	93	1,033
Townhouses	231	190	D.U.	22	68	90	58	44	102	1,653
		340	D.U.	34	133	167	120	75	195	2,686
Shopping Center	820	223,500	S.F.	157	101	258	651	417	1,068	11,433
Fast Food w/ Drive-Thru	834	4,000	S.F.	101	98	199	70	64	134	1,984
Fast Food w/ Drive-Thru	834	3,000	S.F.	77	73	150	52	48	100	1,488
Drive-In Bank	912	2,500	S.F.	18	14	32	67	70	137	822
Gas/Convenience	845	2,000	S.F.	80	76	156	97	97	194	2,358
Retail Subtotal		235,000	S.F.	433	362	795	937	696	1,633	18,085
Shopping Center Passby (4)				24	15	39	98	63	160	1,715
Pad Site Passby (4)				69	65	134	72	70	141	1,663
Retail External Trips				340	282	622	768	564	1,332	14,707
Hotel	310	148	Rooms	50	36	86	44	45	89	1,320
Office	710	195,000	S.F.	280	38	318	51	247	298	2,216
Subtotal				704	489	1,193	983	931	1,914	20,929
Resency (Glenwood West) (2)										
Single-Family Detached	210	102	D.U.	20	61	81	70	39	109	1,056
Collier Property (2)										
Research Center (R&D)	760	67,500	S.F.	80	16	96	14	82	96	739
Cameron Chase (2)										
Single-Family Detached	210	66	D.U.	14	42	56	47	27	74	707
Loudoun Crest School (2)										
School	-	3,500	Students	585	130	715	72	177	249	4,153
Broad Run Business Park										
General Business Office	710	415,640	S.F.	510	70	580	93	452	545	3,964
Research & Development	760	123,796	S.F.	136	28	164	24	135	159	1,219
Flight Training Center (5)	-	59	Employees	95	36	131	36	95	131	1,310
Subtotal				741	134	875	153	682	835	6,493
Nattak (6)										
Shopping Center	820	79,680	S.F.	85	55	140	329	211	540	5,890
Shopping Center Passby (15%)				4	3	7	49	32	81	884
Retail External Trips				81	52	133	280	179	459	5,006
Dulles Berry (6)										
General Business Office	710	104,248	S.F.	170	23	193	33	163	196	1,370
Loudoun Parkway Center (6)										
General Business Office	710	206,238	S.F.	292	40	332	53	257	310	2,314
Dulles Parkway Center (6)										
General Business Office	710	172,640	S.F.	253	35	288	46	227	273	2,019
TOTAL				4,004	1,488	5,492	2,265	3,916	6,181	60,151

NOTES:
 1. Trip rates based on Trip Generation, Sixth Edition, The Institute of Transportation Engineers (ITE) unless otherwise noted.
 2. Development level and school trip rates based on information provided in Loudoun Crest report, Wells & Associates, LLC, September 9, 1997.
 3. Development level based on information provided in Ashburn Ice Rink study, Wells & Associates, LLC.
 4. Development level and shopping Center passby rate of 15% based on Ryan Park Center report, PHRA, April, 1996.
 5. Development level and trip rates for training facility based on British Aerospace report, Wells & Associates, LLC, February 17, 1995.
 6. Development level based on Fiscal Impacts of Service Plans and Estimates, Board of Supervisors Finance Committee, September 1, 1994.

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Table 5
 Ashburn Corporate Center
 WorldCom Site Trip Generation Summary, 2003

Land Bay/Land Use	Land Use Code	Amount	Unit	AM Peak		Total	In	PM
				In	Out			
A								
Hotel (180,000 SF incl. 10,000 SF rest.)	310	200	Rooms	59	38	97	56	
Internal Trip Reduction (15%)				2	6	15	8	
External Hotel Trips				50	32	82	48	
B								
Office Park (23 percent)	750	450,000	GSF	536	62	598	51	
C								
Shopping Center	820	200,000	GSF	147	94	241	605	
Internal Trip Reduction (15%)				7	5	12	91	
Diverted Link Trip (15%) From Rt. 640/Rt. 625				1	5	12	21	
External Trips without passbys				133	84	217	423	
D								
Office Park (43 percent)	750	839,800	GSF	1,003	121	1,124	143	
High-Turnover Restaurant	832	10,000	GSF	48	45	93	65	
High-Turnover Restaurant	832	10,000	GSF	48	45	93	65	
Subtotal				96	90	186	130	
Internal Trip Reduction (15%)				5	5	10	20	
Diverted Link Trip (15%) From Rt. 640/Rt. 625				5	5	10	20	
External Trips without passbys				86	80	166	90	
E								
Shopping Center	820	20,000	GSF	37	24	61	132	
Internal Trip Reduction (15%)				2	1	3	20	
Diverted Link Trip (15%) From Rt. 640/Rt. 625				2	1	3	20	
External Trips without passbys				33	22	55	92	
UNNet								
Research & Development	760	1,800,000	GSF	1,408	282	1,690	193	
Office Park (34 percent)	750	660,200	GSF	789	90	879	90	
Subtotal				2,197	372	2,569	283	
TOTAL EXTERNAL TRIPS		4,170,000	GSF	4,038	773	4,811	1,130	
Transportation Demand Management Reduction				0	0	0	0	
TOTAL				4,038	773	4,811	1,130	

Source: The Institute of Transportation Engineers Trip Generation manual, 6th Edition.

Table 6
 Ashburn Corporate Center
 WorldCom Site Trip Generation Summary, 2008

Land Bay	Land Use Code	Amount	Unit	AM Peak			PM Peak	
				In	Out	Total	In	Out
A								
Hotel (180,000 SF incl. 10,000 SF rest.)	310	200	Rooms	59	38	97	56	4
Internal Trip Reduction (15%)				2	6	15	8	
External Hotel Trips				50	32	82	48	4
Office Park (3 percent)	750	113,100	GSP	146	18	164	24	14
High-Turnover Restaurant	832	10,000	GSP	48	45	93	65	4
Internal Trip Reduction (15%)				2	2	5	10	
Diverted Link Trip (15%) From Rt. 640/Rt. 625				2	2	5	10	
External Trips without passbys				44	41	83	45	3
B								
Office Park (28 percent)	750	1,324,200	GSP	1,354	157	1,511	192	1,34
C								
Shopping Center	820	200,000	GSP	147	94	241	605	38
Internal Trip Reduction (15%)				7	5	12	91	5
Diverted Link Trip (15%) From Rt. 640/Rt. 625				2	5	12	21	5
External Trips without passbys				133	84	217	423	27
Office Park (3 percent)	750	138,900	GSP	146	18	164	24	14
Hotel (250,000 SF)	310	300	Rooms	98	62	160	91	8
Internal Trip Reduction (15%)				15	2	24	14	1
External Hotel Trips				83	53	136	77	6
D								
Office Park (23 percent)	750	1,093,400	GSP	1,115	135	1,250	179	1,13
High-Turnover Restaurant	832	10,000	GSP	48	45	93	65	4
High-Turnover Restaurant	832	10,000	GSP	48	45	93	65	4
Subtotal				96	90	186	130	8
Internal Trip Reduction (15%)				5	5	10	20	1
Diverted Link Trip (15%) From Rt. 640/Rt. 625				5	5	10	20	1
External Trips without passbys				86	80	166	90	6
E								
Office Park (9 percent)	750	402,400	GSP	436	51	487	52	41
F								
Shopping Center	820	123,360	GSP	110	71	181	440	28
Internal Trip Reduction (15%)				6	4	9	66	4
Diverted Link Trip (15%) From Rt. 640/Rt. 625				6	4	2	66	4
External Trips without passbys				99	63	163	308	19
Office Park (20 percent)	750	951,640	GSP	970	117	1,087	141	96
UNNAI								
Research & Development	760	1,800,000	GSP	1,405	276	1,681	191	1,21
Office Park (14 percent)	750	660,200	GSP	675	75	750	94	67
Subtotal				2,080	351	2,431	285	1,88
TOTAL EXTERNAL TRIPS								
		7,267,200	GSP	6,741	1,201	7,942	1,889	6,70
Transportation Demand Management Reduction								
				912	133	1,072	153	93
TOTAL								
				5,802	1,068	6,870	1,736	5,77

Source: The Institute of Transportation Engineers Trip Generation manual, 6th Edition.

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ANALYSIS

Existing Levels of Service

Existing levels of service were calculated for the key intersections in the study vicinity based on existing lane use and traffic controls, existing traffic counts and the 1994 Highway Capacity Manual analysis procedures. The results of these calculations are reproduced herein as Table 7, and are presented as Appendix C.

As shown on Table 7, traffic flows freely on Route 640 past Smiths Switch Road, and on Route 625 past Panorama Parkway. Southbound left turns on each of these side streets however, operate at LOS "F" during peak hours under STOP sign control.

Background Traffic Growth

Background traffic growth was estimated at one (1) percent per year compounded for the years 1997 through 2013. This growth rate was applied to existing through traffic volumes in the Route 625/640 corridor.

Northbound and southbound through traffic on Panorama Parkway at Route 625/640 were estimated to reflect the future extensions of these roads. The one (1) percent background traffic growth rate was then applied to the through movements on these roads.

Background Traffic Forecasts

Background traffic forecasts for 2003, and 2013 are shown on Figures 8, and 9, respectively. These volumes include: 1) existing traffic volumes, 2) additional traffic generated by the 14 other approved projects and WorldCom, and 3) one (1) percent background traffic growth per year.

Table 7
 Ashburn Corporate Center
 Existing Intersection Levels of Service

<u>Intersection</u>	<u>Traffic Control</u>		<u>Existing</u>	
			<u>AM</u>	<u>PM</u>
1. Farmwell Road/ Smiths Switch Road	Unsignalized	SBL	F[186.2]	F[142.3]
		SBR	A[3.5]	B[6.8]
		EBL	<u>A[3.8]</u>	<u>C[16.1]</u>
		TOTAL	A[0.7]	A[0.7]
2. Farmwell Road/ Westernmost Entrance	Unsignalized	NBL	F[389.8]	F[162.3]
		NBR	B[10.0]	A[4.1]
		WBL	<u>E[43.3]</u>	<u>B[5.6]</u>
		TOTAL	A[2.5]	A[0.9]
3. Farmwell Road/ Middle Entrance			N/A	N/A
4. Farmwell Road/ Easternmost Entrance			N/A	N/A
5. Farmwell Road/ Panorama Parkway	Unsignalized	SBL	F[*]	F[*]
		EBL	<u>B[5.6]</u>	<u>C[18.5]</u>
		TOTAL	F[377.0]	F[937.7]
6. Smiths Switch Road/ Hastings Drive			N/A	N/A
7. Smiths Switch Road/ Chilum Place			N/A	N/A
8. Smiths Switch Road/ Panorama Parkway	Unsignalized	EBLTR	A[3.6]	A[3.5]
		WBLTR	<u>A[3.6]</u>	<u>A[3.4]</u>
		TOTAL	A[1.8]	A[1.9]

Notes: (1) Numbers in brackets represent delay, in seconds, per vehicle of movement.
 (2) Numbers in parentheses represent intersection delay, in seconds per vehicle.
 * Calculated value was greater than 999.9 seconds.

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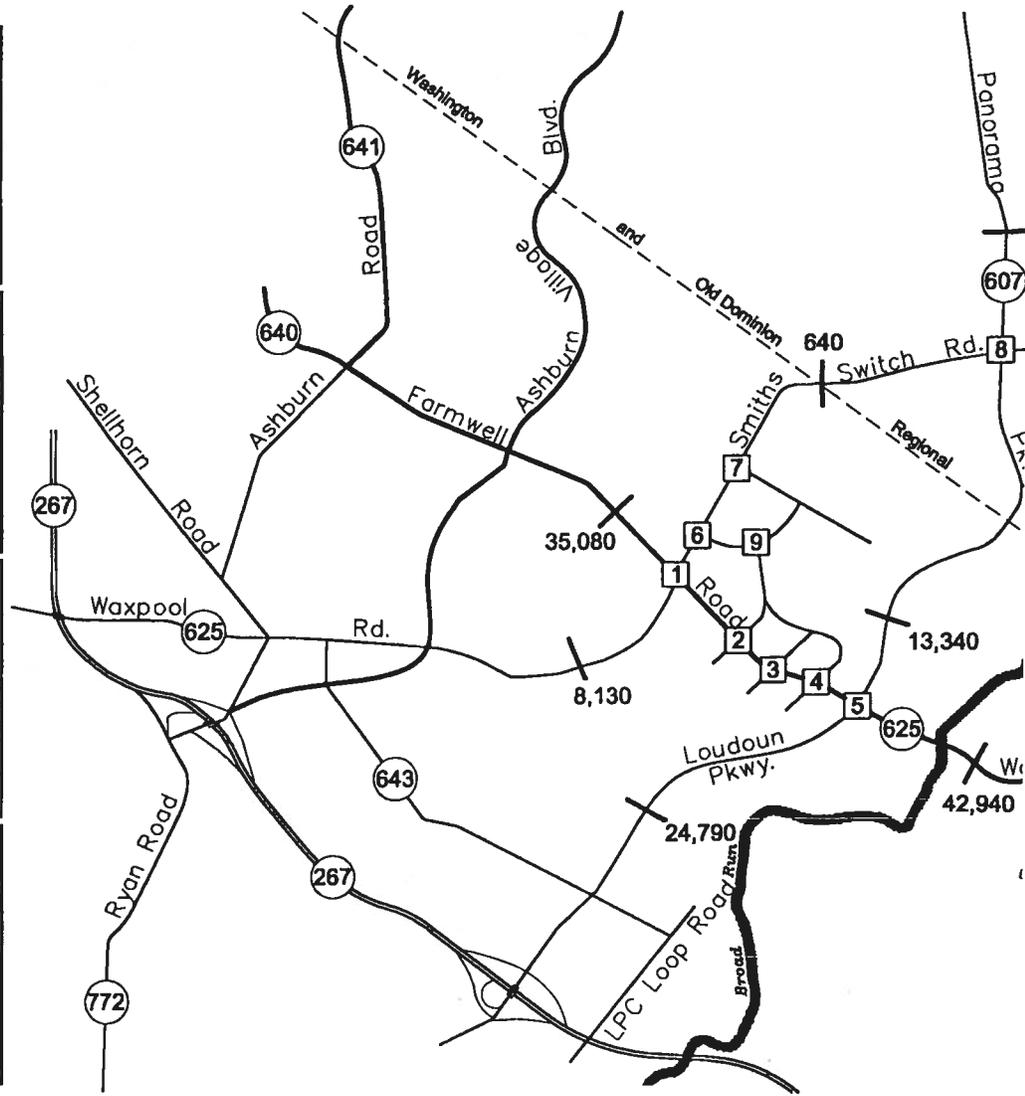
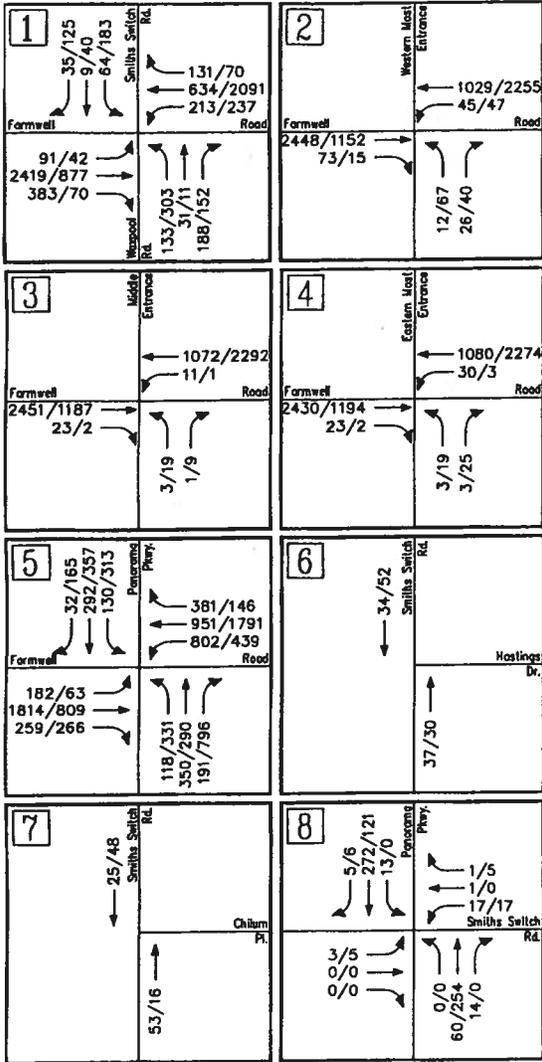


Figure 8
Year 2003 Background Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

Ashburn Corporate Center
Loudoun County, Virginia



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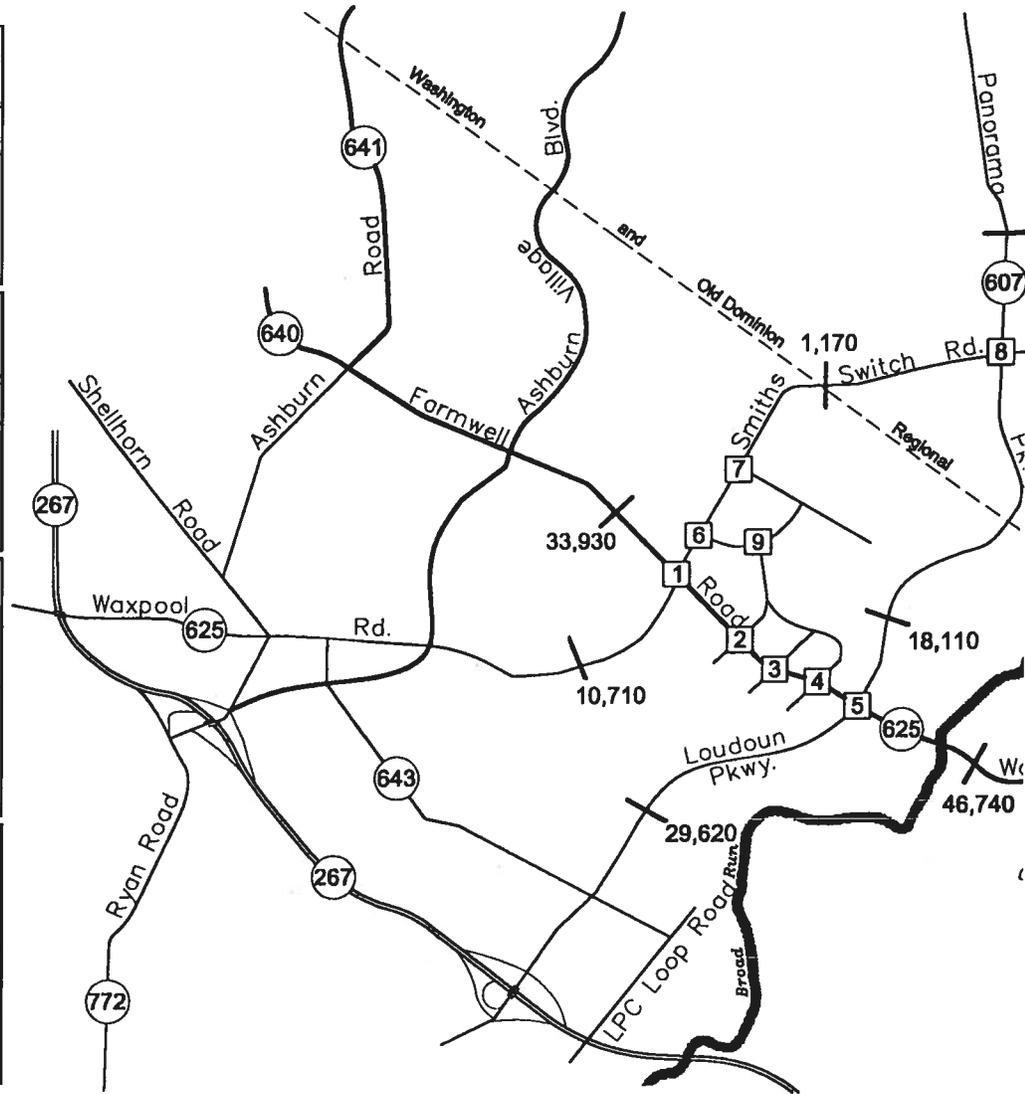
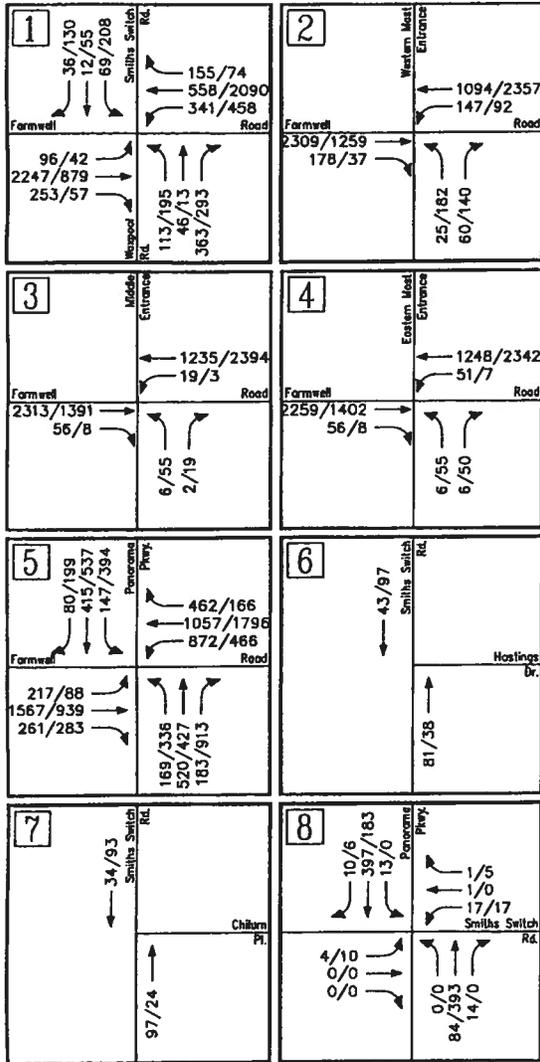


Figure 9
Year 2013 Background Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

Ashburn Corporate Center
Loudoun County, Virginia



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Background Future Levels of Service

Background future intersection levels of service were calculated for 2003, and 2013 based on: (1) the background future traffic forecasts shown on Figures 8, and 9, respectively, (2) the future lane use and traffic control shown on Figure 5, and (3) the 1994 Highway Capacity Manual analysis procedures. The results are presented in Appendices D and E, and summarized in Table 8.

2003. Table 8 shows that without the development of Ashburn Corporate Center, and with those improvements provided by others, all of the intersections analyzed will operate at acceptable levels of service "D" or better, with the exception of the Panorama Parkway/Route 640 intersection.

The Panorama Parkway/Route 640 intersection will require re-striping on the northbound approach to provide for an exclusive northbound left turn lane, two (2) through lanes, a shared through-right turn lane, and an exclusive right turn lane in order to function at an acceptable level of service "D" during peak hour periods.

2013. As shown in Table 8, in the year 2013 all of the intersections analyzed will function at an acceptable LOS "D" or better during peak periods without development of Ashburn Corporate Center, with the exception of the Panorama Parkway/Route 640 intersection.

The Panorama Parkway/Route 640 intersection will require additional improvements on the northbound approach in order to function at an acceptable level of service "D" in 2013. The northbound approach requires dual left turn lanes, two (2) northbound through lanes, and a free-flow northbound right turn lane in order to acceptably serve the traffic generated by background traffic 2013 conditions.

Site Trip Generation

Approved Development Program. Ashburn Business Park and Loudoun Station are currently zoned PD-IP and approved for development with flex-industrial uses up to a FAR of 0.4. Such a development program, as shown on Table 9, would result in an anticipated trip volume of 2,366 total vehicle trips (2,082 inbound, 284 outbound) during the AM peak hour, 2,514 total vehicle trips (377 inbound, 2,137 outbound) during the PM peak hour, and 16,948 vehicle trips daily.

Proposed Development Program. Under the proposed special exception application(s), the properties would be developed with office park, general office buildings, pad restaurant(s), and hotel land uses. Standard ITE trip generation rates/equations were used throughout. The resulting AM peak hour, PM peak hour, and daily trip generation estimates for 2003, at project buildout, are shown in Table 9.

Table 8
 Ashburn Corporate Center
 Background Intersection Levels of Service

Intersection	Traffic Control		Background Year 2003		Background Year 2013	
			AM	PM	AM	PM
1. Farmwell Road/ Smiths Switch Road	Signalized	EB	C(17.0)	C(23.5)	C(15.8)	C(22.3)
		WB	D(27.5)	D(30.7)	D(31.6)	D(26.4)
		NB	C(23.4)	D(28.9)	D(27.3)	C(23.4)
		SB	<u>D(40.0)</u>	<u>D(27.8)</u>	<u>D(35.8)</u>	<u>D(28.4)</u>
		TOTAL	C(20.4)	D(28.6)	C(21.5)	D(25.3)
2. Farmwell Road/ Westernmost Entrance	Signalized	EB	B(10.8)	B(6.6)	B(12.5)	B(6.7)
		WB	B(7.3)	B(10.3)	B(10.9)	B(11.3)
		NB	<u>C(21.2)</u>	<u>C(24.0)</u>	<u>C(19.7)</u>	<u>D(26.5)</u>
		TOTAL	B(9.9)	B(9.4)	B(12.2)	B(10.9)
3. Farmwell Road/ Middle Entrance	Signalized	EB	B(11.0)	B(6.6)	B(10.1)	B(7.0)
		WB	B(6.7)	B(10.1)	B(7.1)	B(10.7)
		NB	<u>C(24.1)</u>	<u>C(23.8)</u>	<u>C(24.1)</u>	<u>C(24.7)</u>
		TOTAL	B(9.7)	B(9.0)	B(9.1)	B(9.6)
4. Farmwell Road/ Easternmost Entrance	Signalized	EB	B(10.8)	B(6.6)	B(9.8)	B(6.6)
		WB	B(7.1)	B(10.0)	B(7.7)	B(10.0)
		NB	<u>C(22.2)</u>	<u>C(22.0)</u>	<u>C(22.3)</u>	<u>C(22.0)</u>
		TOTAL	B(9.7)	B(9.0)	B(9.1)	B(9.0)
5. Farmwell Road/ Panorama Parkway	Signalized	EB	D(25.1)	C(20.0)	D(28.5)	C(24.2)
		WB	C(23.6)	C(21.9)	D(31.5)	D(27.8)
		NB	D(36.4)	D(36.6)	D(32.1)	D(28.8)
		SB	<u>D(35.1)</u>	<u>D(36.5)</u>	<u>D(32.6)</u>	<u>D(38.8)</u>
		TOTAL	D(26.5)	D(25.4)	D(30.5)	D(29.0)
6. Smiths Switch Road/ Hastings Drive			N/A	N/A	N/A	N/A
7. Smiths Switch Road/ Chilum Place			N/A	N/A	N/A	N/A
8. Smiths Switch Road/ Panorama Parkway	Unsignalized	EBLTR	B[5.2]	B[5.5]	B[6.5]	B[7.6]
		WBLTR	B[5.7]	B[5.5]	B[7.1]	B[7.3]
		NBL	A[2.9]	A[2.4]	A[3.4]	A[2.6]
		SBL	<u>A[2.3]</u>	<u>A[2.8]</u>	<u>A[2.4]</u>	<u>A[3.3]</u>
		TOTAL	A[0.4]	A[0.4]	A[0.4]	A[0.4]

Notes: (1) Numbers in brackets represent delay, in seconds, per vehicle of movement.
 (2) Numbers in parentheses represent intersection delay, in seconds per vehicle.
 * Calculated value was greater than 999.9 seconds.

Table 9
 Ashburn Corporate Center
 Trip Generation Analysis - Full Development Program

Land Use	Land Use Code	Lot	Amount	Unit	In	AM Peak Out	Total	In	P
Approved Development Program¹									
Office	710	4A, 5A	104,566	GSF	170	23	193	33	
Light Industrial	110		<u>108,834</u>	GSF	<u>88</u>	<u>12</u>	<u>100</u>	<u>13</u>	
	Subtotal		213,400	GSF	258	35	293	46	
Office	710	2-17	748,034	GSF	816	111	927	156	
Light Industrial	110		<u>778,566</u>	GSF	<u>630</u>	<u>86</u>	<u>716</u>	<u>92</u>	
	Subtotal		1,526,600		1,446	197	1,643	248	
Office	710	1A	43,806	GSF	85	12	97	22	
Light Industrial	110		45,594	GSF	37	5	42	5	
Office	710	2A	44,443	GSF	86	12	98	22	
Light Industrial	110		46,257	GSF	38	5	43	5	
Office	710	3A	48,167	GSF	92	12	104	23	
Light Industrial	110		<u>50,133</u>	GSF	<u>40</u>	<u>6</u>	<u>46</u>	<u>6</u>	
	Subtotal		278,400	GSF	378	52	430	83	
Total Approved Development Trips					2,082	284	2,366	377	
Proposed Development Program									
Extended Stay Hotel	311	4A	240	Rooms	50	41	91	43	
High-Turnover Restaurant (3)	832	5A	40,000	SF	<u>193</u>	<u>178</u>	<u>371</u>	<u>260</u>	
	Subtotal				243	219	462	304	
	Internal Trip Reduction				<u>12</u>	<u>10</u>	<u>23</u>	<u>46</u>	
	Total Trips				231	209	439	258	
Office Park	750	2-17	1,526,600	GSF	1,905	235	2,140	274	
	TDM Reduction (15%)				<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
	Total Trips				1,905	235	2,140	274	
Office	710	2A	90,700	GSF	152	21	173	31	
Office	710	3A	<u>98,300</u>	GSF	<u>162</u>	<u>22</u>	<u>184</u>	<u>32</u>	
	Subtotal		278,400	GSF	464	63	527	93	
	Internal Trip Reduction				<u>10</u>	<u>12</u>	<u>23</u>	<u>34</u>	
	Total External Trips				454	51	504	59	
	TDM REDUCTION (15%)				<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	
Total Proposed External Development Trips					2,590	495	3,083	591	
Difference									
	Proposed vs. Approved Trips				508	211	717	214	
	Percent Different				24%	75%	30%	57%	

Source: Institute of Transportation Engineers Trip Generation manual, 6th Edition.

Notes: ¹Flex Industrial: 49% Office Use
 51% Light Industrial Use

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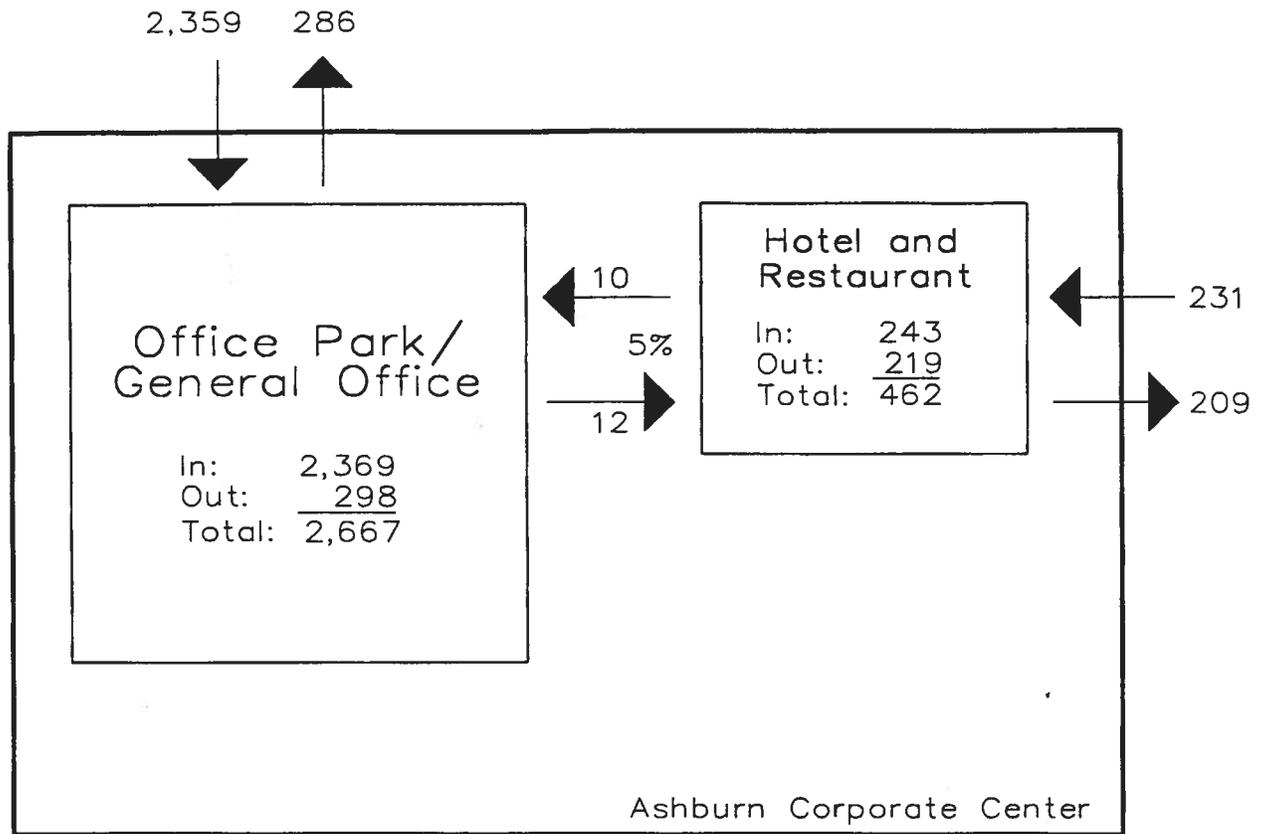
Table 9 shows that Ashburn Corporate Center is projected to generate a total of 3,129 total vehicle trips (2,612 inbound, 517 outbound) during the AM peak hour, 3,037 total vehicle trips (671 inbound, 2,366 outbound) during the PM peak hour, and 26,468 vehicle trips daily, in 2003.

The internal and external trip relationships among the various uses in 2003 are diagramed on Figure 10 for the AM peak hour and on Figure 11 for the PM peak hour.

Internal Trips. Some workers, visitors, shoppers, and hotel guests will use more than one service within the Ashburn Corporate Center. For example, some office workers will patronize the on-site restaurants. It was assumed that five (5) percent of all AM peak hour restaurant and hotel trips, and 15 percent of all PM peak hour restaurant and hotel trips, were assumed to originate or be destined to the on-site office uses.

As shown on Figure 10, it is estimated that in 2003, 44 (or one (1) percent) of the 3,129 AM peak hour site-generated trips will be internal trips. As shown on Figure 11 it is estimated that 160 (or five (5) percent) of the 3,037 PM peak hour site-generated trips will be internal trips.

Several case studies of internal trip capture are contained in the ITE publication Trip Generation, 5th Edition. The Virginia Transportation Research Council reports capture rates of 27 percent of all PM peak hour trips and 17 percent of all daily trips at a multi-use site in Northern Virginia. The Brandermill PUD near Richmond, Virginia had capture rates of 45 percent in the AM peak hour, 55 percent in the PM peak hour, and 51 percent over a 24-hour period. Similarly, the Colorado-Wyoming Section of ITE reported capture rates of up to 37 percent in the AM peak hour, 45 percent in the PM peak hour, and 20 percent over a 24-hour period. The capture rates projected for Ashburn Corporate Center are well within these actual observations at other developments.



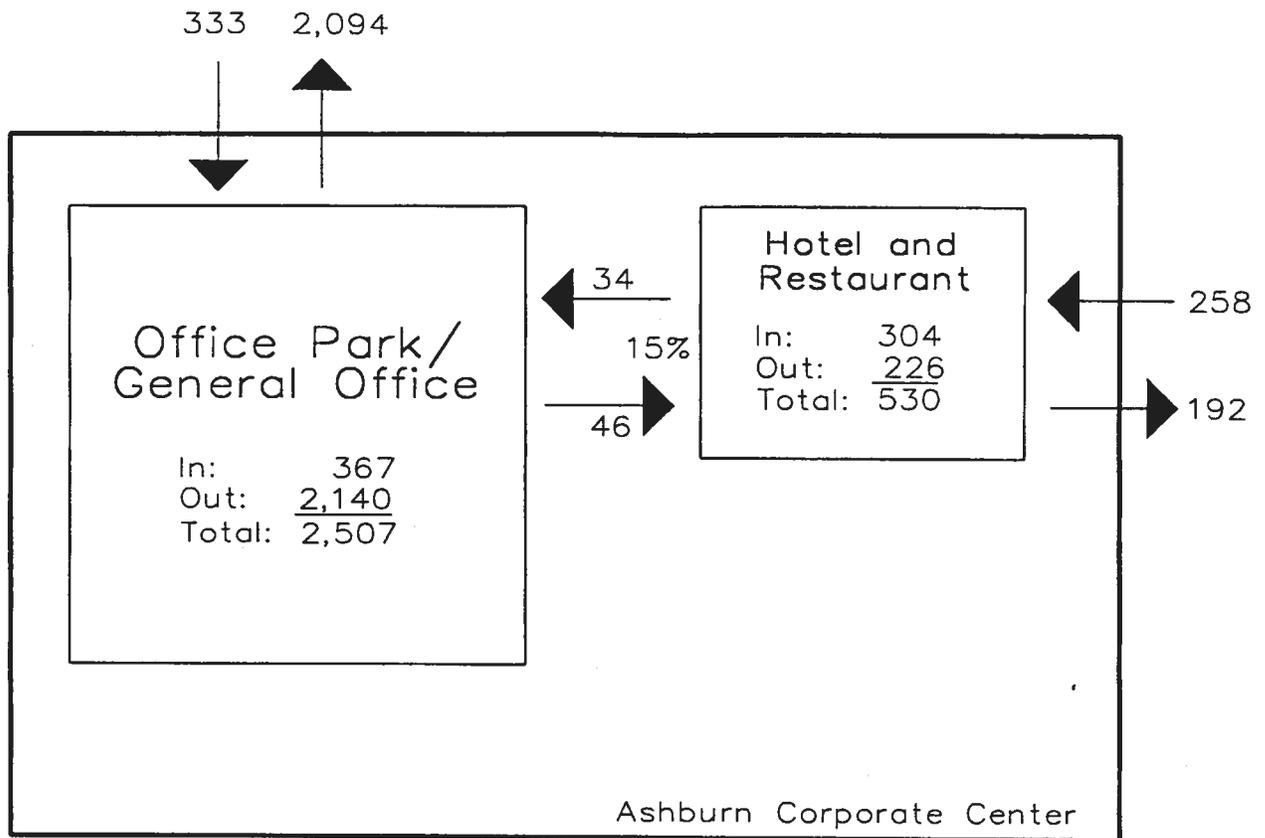
Summary:

Type of Trip:	In	Out	Total	Percent of Total
Internal Trips:	22	22	44	1%
External Trips:				
Office/General Office	2,359	286	2,645	85%
Hotel & Rest.	231	209	440	14%
Subtotal	2,590	495	3,085	
Total	2,612	517	3,129	100%
Percent of Total	83%	17%	100%	

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Figure 10
 Ashburn Corporate Center
 2003 Internal and External Trip Analysis:
 AM Peak Hour

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Summary:

Type of Trip:	In	Out	Total	Percent of Total
Internal Trips:	80	80	160	5%
External Trips:				
Office/General Office	333	2,094	2,427	80%
Hotel & Rest.	258	192	450	15%
Subtotal	591	2,286	2,877	
Total	671	2,366	3,037	100%
Percent of Total	22%	78%	100%	

Figure 11
 Ashburn Corporate Center
 2003 Internal and External Trip Analysis:
 PM Peak Hour

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Primary External Trips. As shown in Figures 10 and 11, the Ashburn Corporate Center is anticipated to generate 3,085 new external trips in the AM peak hour and 2,877 new external trips during the PM peak hour in 2003.

Travel Demand Management. The Ashburn Corporate Center, which given the other proposed uses in the corridor, will likely be occupied by high technology companies with many employees that work long, irregular hours. As such, it is ideally suited to a travel demand management (TDM) program. Peak hour arrivals and departures will be more dispersed than typical office and R&D uses due to the nature of the businesses that may locate in the center. Employers could also voluntarily encourage employees to carpool and vanpool or take transit services to work.

Although a successful TDM program is feasible for this site, none was assumed in this traffic study in order to provide a conservative estimate of future traffic conditions.

Site Traffic Distribution

The distribution of the Ashburn Corporate Center site-generated trips was estimated based on existing traffic counts, previous traffic studies, and local knowledge. Separate distributions were developed for employment (i.e., office, R&D, and hotel) uses and complementary and supportive uses. These distributions are summarized in Table 10 and illustrated in Figure 12.

Site Traffic Assignments

The new site-generated trips shown on Table 9 were assigned to the public road networks shown on Figure 5 according to the directional distributions shown in Table 10. The assignment of new site-generated trips is shown on Figure 12 for 2003.

Table 10
 Ashburn Corporate Center
 Site Traffic Distribution

Direction	Office/Hotel Distribution	Restaur Distribu
Northbound Route 28	11%	
Westbound Church Road	5%	
Southbound Route 28	6%	
Southbound Panorama Parkway	6%	
Southbound Ashburn Village Boulevard	7%	
Eastbound Farmwell Road (Route 640)	10%	
Westbound Dulles Greenway	37%	
Eastbound Dulles Greenway	<u>18%</u>	
TOTAL	100%	

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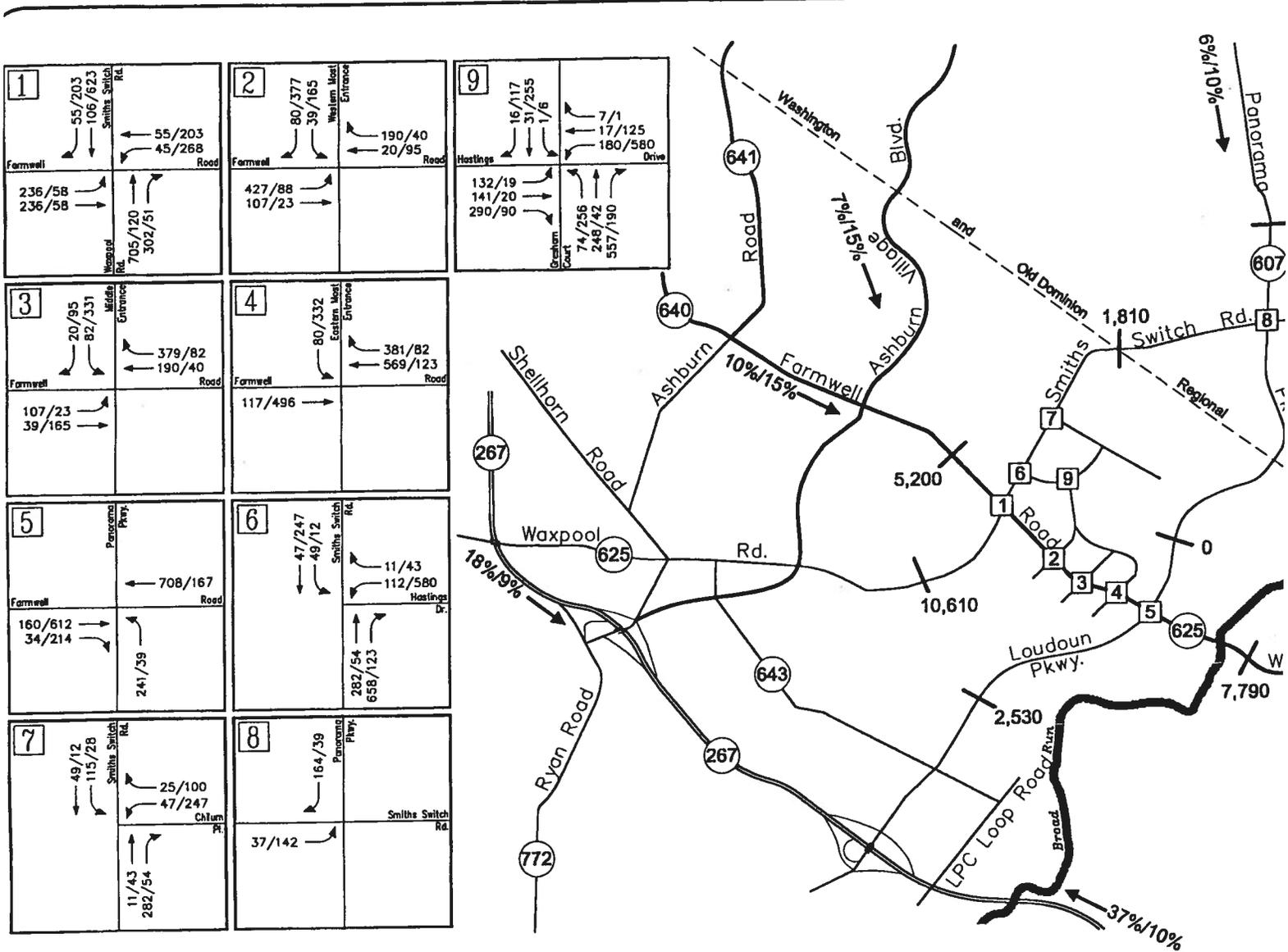


Figure 12
 Site Generated Traffic

Ashburn Corporate Center
 Loudoun County, Virginia



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Total Future Traffic Forecasts

The site trip assignments shown on Figure 12 were added to the background traffic forecasts shown on Figure 8 to yield the 2003 total future traffic forecasts shown on Figure 13. Similarly, the site-generated trips on Figure 12 were added to the year 2013 background forecasts on Figure 9 to yield the 2013 total future forecasts shown on Figure 14.

Total Future Levels of Service

Total future intersection levels of service were calculated for the years 2003, and 2013 based on: (1) the total future traffic forecasts shown on Figures 13, and 14, (2) the future lane use and traffic control shown on Figure 15 and (3) the 1994 Highway Capacity Manual analysis procedures. The results are presented in Appendices F and G, and summarized in Table 11.

2003. As shown in Table 11, all of the intersections analyzed will function at an overall acceptable level of service (LOS) "D" or better in the year 2003 with development of Ashburn Corporate Center as proposed, with the following improvements:

- A. Provision of exclusive right-turn lanes into each of the site entrances on both Smiths Switch Road and Farmwell Road.
- B. Construction of an exclusive left-turn deceleration lane on Smiths Switch Road at both Chilum Place and Hastings Drive.
- C. Provision of two (2) new traffic signals at the intersection of Hastings Drive and Smiths Switch Road and Hastings Drive and Gresham Court when warranted.

- D. Contribution towards the construction of an additional left-turn lane on both the east and westbound Farmwell Road approaches at the Smiths Switch Road intersection. This will result in the provision of dual lefts on Farmwell Road.
- E. Construction of the site entrances on Farmwell Road (Route 640) to provide for one (1) inbound and two (2) outbound lanes.
- F. Pro-rata contribution towards signals at each site entrance on Route 640 when warranted.
- G. Contribution towards construction of a third westbound through lane on Route 640 along the site frontage.
- H. Re-stripe the northbound approach at the Panorama Parkway/Route 640 intersection to provide for dual left turn lanes, two (2) northbound through lanes, and a single free-flow right turn lane.

2013. As also shown on Table 11, in the year 2013 with the improvements recommended above (including those required under background 2013 conditions), all of the intersections analyzed will continue to operate at a level of service "D" or better. In some cases, the levels of service in the year 2013 are better than those shown for the year 2003. This is primarily a result of additional area-wide improvements (i.e., Route 625/Route 28 interchange etc.) anticipated to be completed between the years 2003 and 2013. No additional roadway improvements other than those previously recommended are required to serve 2013 traffic conditions.

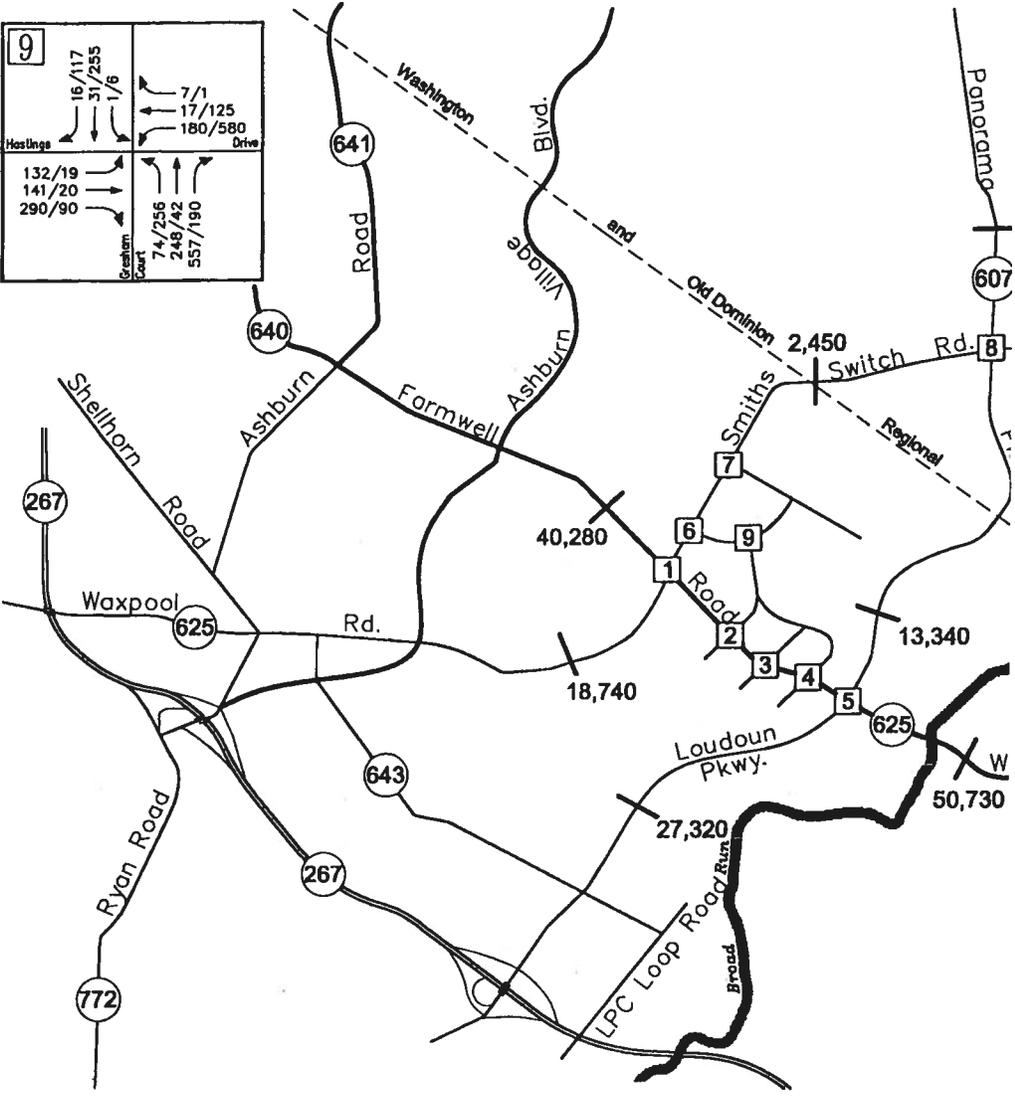
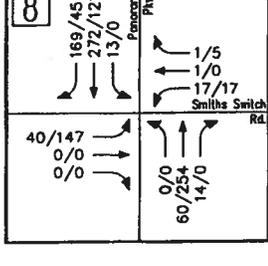
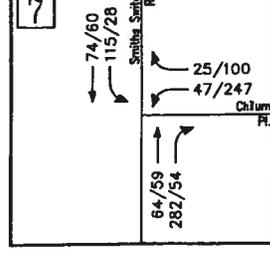
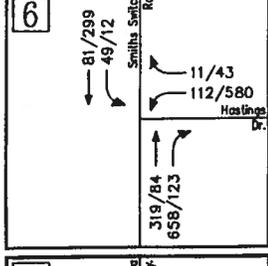
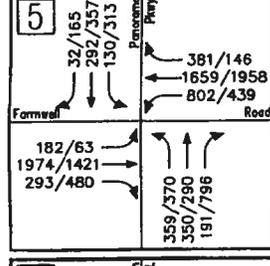
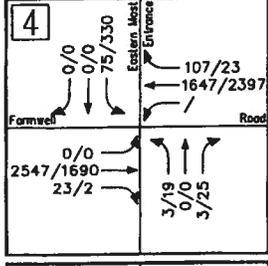
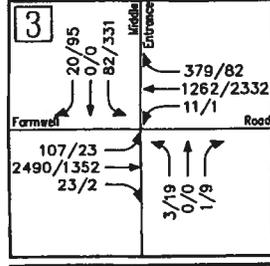
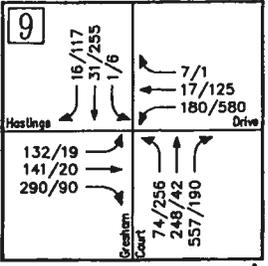
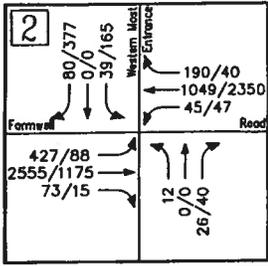
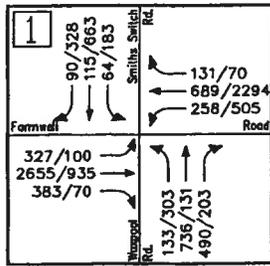


Figure 13
Year 2003 Future Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

Ashburn Corporate Center
Loudoun County, Virginia



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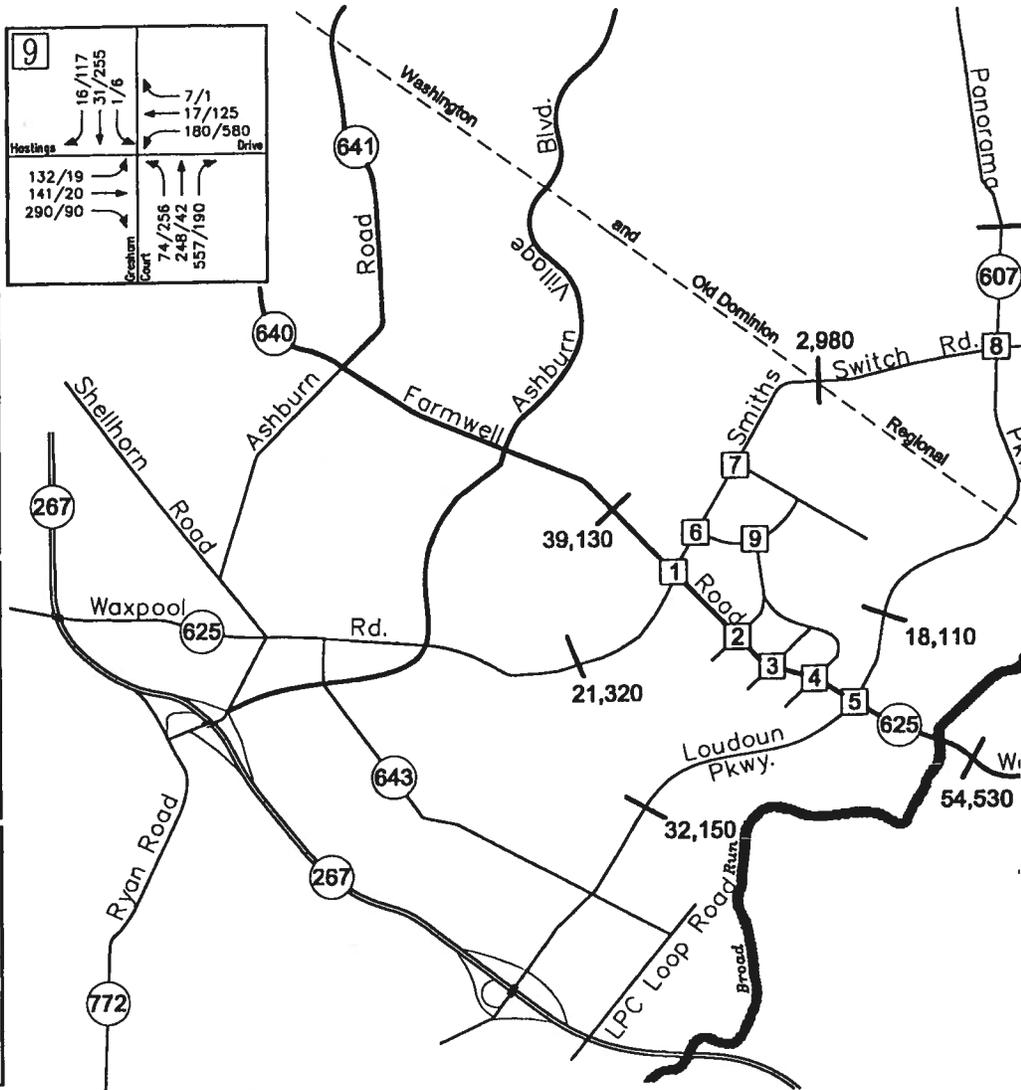
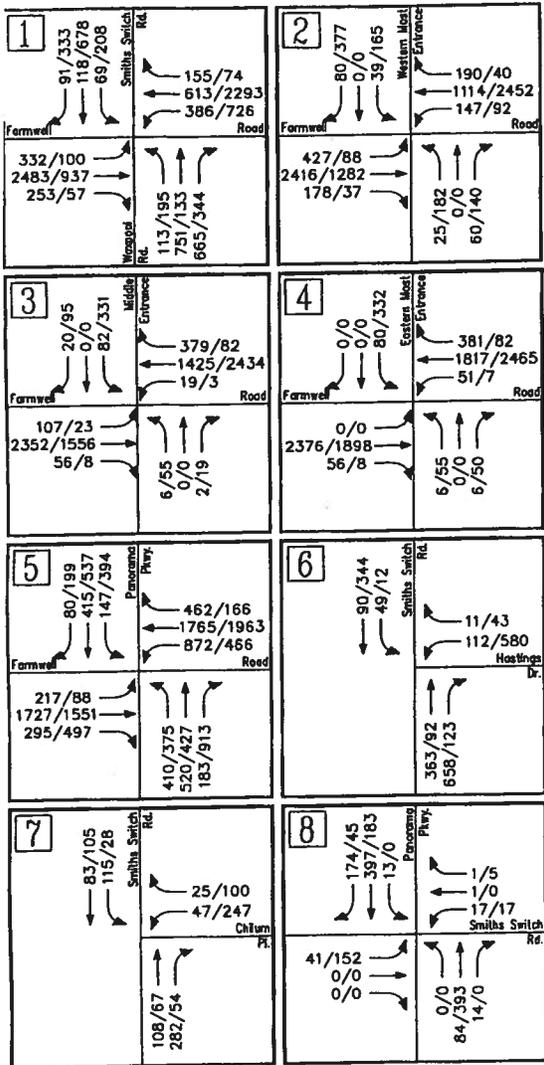


Figure 14
Year 2013 Future Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

Ashburn Corporate Center
Loudoun County, Virginia



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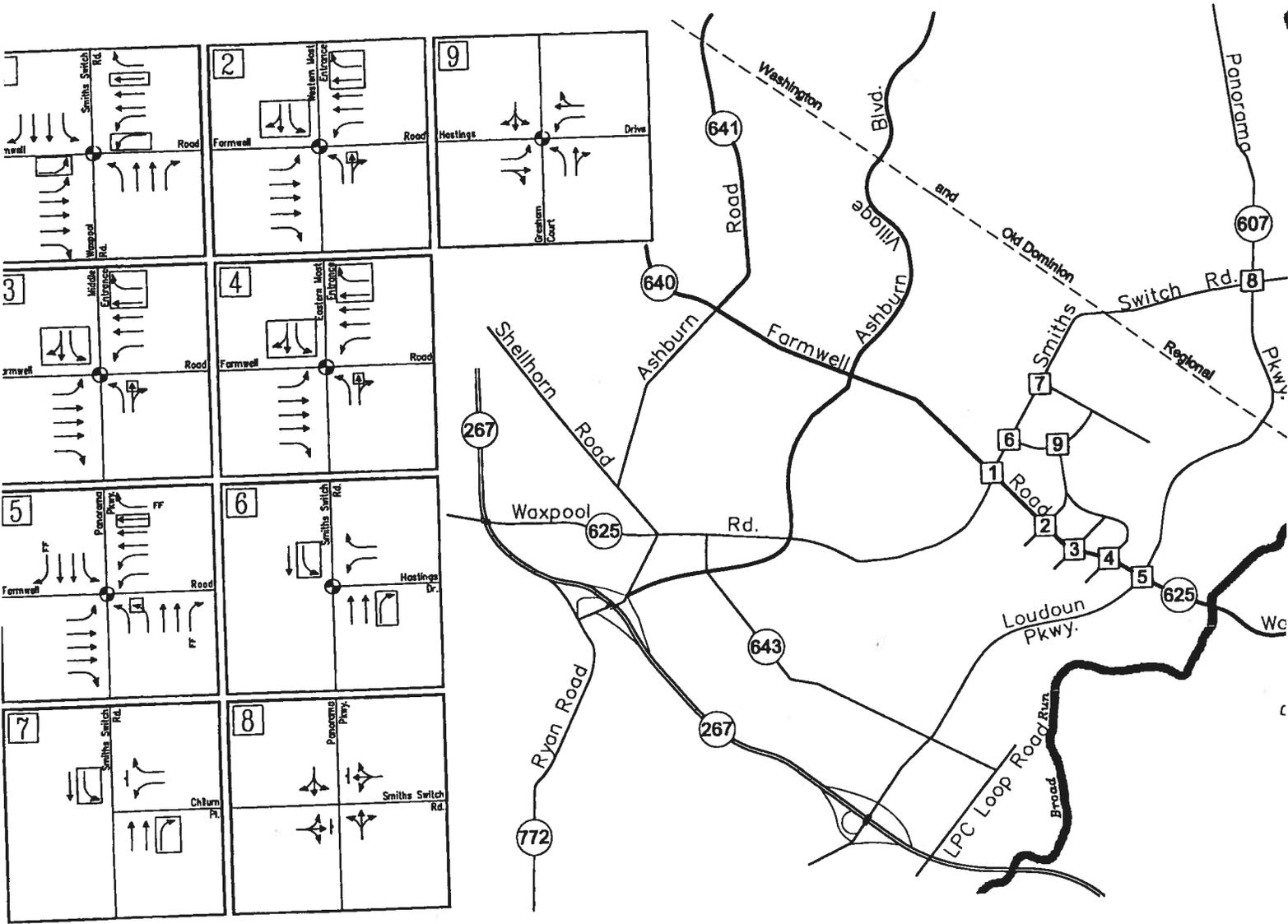


Figure 15
 Future Lane Use and Traffic Control, 2003 and 2013

- ← Represents One Travel
- ⊙ Signalized Intersection
- Stop Sign
- FF Free Flow
- ▭ Future Road Improvement

Ashburn Corporate Center
 Loudoun County, Virginia



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Table 11
 Ashburn Corporate Center
 Total Future Intersection Levels of Service

Intersection	Traffic Control		Total Future Year 2003		Total Future Year 2013	
			AM	PM	AM	PM
1. Farmwell Road/ Smiths Switch Road	Signalized	EB	C (27.1)	D (25.5)	D (28.3)	D (25.4)
		WB	D (29.1)	D (29.3)	D (35.0)	C (21.3)
		NB	D (39.0)	D (39.0)	D (37.2)	D (24.0)
		SB	<u>C (24.7)</u>	<u>D (29.5)</u>	<u>D (29.9)</u>	<u>D (34.4)</u>
		TOTAL	D (29.9)	D (29.6)	D (31.7)	C (24.7)
2. Farmwell Road/ Westernmost Entrance	Signalized	EB	C (19.5)	C (18.1)	C (17.0)	C (22.5)
		WB	B (14.3)	D (30.5)	C (16.0)	D (35.5)
		NB	D (30.7)	C (22.0)	D (28.5)	D (34.6)
		SB	<u>D (34.4)</u>	<u>D (31.1)</u>	<u>D (29.0)</u>	<u>D (31.6)</u>
		TOTAL	C (18.5)	D (26.7)	C (17.2)	D (31.2)
3. Farmwell Road/ Middle Entrance	Signalized	EB	C (15.5)	B (14.9)	B (13.5)	B (14.3)
		WB	B (14.3)	C (18.2)	C (15.5)	D (29.7)
		NB	D (29.2)	C (20.3)	D 925.9	C (21.7)
		SB	<u>D (29.4)</u>	<u>D (25.7)</u>	<u>D (27.1)</u>	<u>D (30.5)</u>
		TOTAL	C (15.4)	C (17.8)	B (14.6)	C (24.3)
4. Farmwell Road/ Easternmost Entrance	Signalized	EB	C (16.1)	C (16.6)	B (14.2)	C (18.5)
		WB	C (16.5)	C (19.5)	C (19.2)	C (21.4)
		NB	D (30.2)	C (21.2)	C (24.4)	C (21.3)
		SB	<u>D (28.7)</u>	<u>D (27.3)</u>	<u>D (25.6)</u>	<u>D (29.8)</u>
		TOTAL	C (16.5)	C (18.9)	C (16.7)	C (20.8)
5. Farmwell Road/ Panorama Parkway	Signalized	EB	D (30.7)	D (30.1)	D (37.2)	D (33.2)
		WB	D (28.3)	D (25.2)	D (32.2)	D (36.6)
		NB	D (37.2)	D (30.2)	D (39.8)	D (29.1)
		SB	<u>D (34.2)</u>	<u>D (34.0)</u>	<u>D (33.1)</u>	<u>D (38.8)</u>
		TOTAL	D (30.7)	D (28.5)	D (35.1)	D (34.8)
6. Smiths Switch Road/ Hastings Drive	Unsignalized	WBL	B [9.6]	F [51.6]	N/A	N/A
		WBR	A [3.2]	A [2.8]	N/A	N/A
		SBL	<u>B [7.2]</u>	<u>A [2.7]</u>	<u>N/A</u>	<u>N/A</u>
		TOTAL	A [1.2]	F [133.4]	N/A	N/A
	Signalized	WB	B (13.4)	D (26.6)	B (13.4)	D (26.6)
		NB	A (0.7)	A (1.8)	A (0.8)	A (1.9)
		SB	<u>A (1.8)</u>	<u>B (5.1)</u>	<u>A (1.8)</u>	<u>B (5.3)</u>
		TOTAL	A (1.2)	C (16.2)	A (2.1)	C (15.7)
7. Smiths Switch Road/ Chillum Place	Unsignalized	WBL	B [6.0]	B [6.4]	B [6.5]	B [7.3]
		WBR	A [2.8]	A [3.0]	A [2.8]	A [3.0]
		SBL	<u>A [3.5]</u>	<u>A [2.4]</u>	<u>A [3.8]</u>	<u>A [2.5]</u>
		TOTAL	A [1.2]	A [3.6]	A [1.2]	A [3.6]
8. Smiths Switch Road/ Panorama Parkway	Unsignalized	EBLTR	B [6.9]	B [8.4]	B [8.7]	C [13.2]
		WBLTR	B [6.5]	B [5.7]	B [8.1]	B [7.5]
		NBL	A [3.5]	A [2.5]	A [4.1]	A [2.7]
		SBL	<u>A [2.3]</u>	<u>A [2.8]</u>	<u>A [2.4]</u>	<u>A [3.3]</u>
		TOTAL	A [0.8]	A [2.3]	A [2.4]	A [2.8]
9. Gresham Court/ Hastings Drive	Unsignalized	NBT	C [17.2]	F [*]	N/A	N/A
		NBL	F [55.4]	D [23.5]	N/A	N/A
		SBTLR	C [14.7]	F [*]	N/A	N/A
		EBL	A [2.4]	A [2.5]	N/A	N/A
		WBL	<u>A [4.3]</u>	<u>A [4.3]</u>	<u>N/A</u>	<u>N/A</u>
	TOTAL	C [13.5]	F [*]	N/A	N/A	
	Signalized	EB	D (27.8)	B (14.1)	D (27.8)	B (14.1)
		WB	C (18.6)	C (19.4)	C (18.6)	C (19.4)
		NB	C (17.8)	C (23.7)	C (17.8)	C (23.7)
		SB	<u>C (15.7)</u>	<u>C (21.8)</u>	<u>C (15.7)</u>	<u>C (21.8)</u>
TOTAL		C (21.4)	C (20.4)	C (21.4)	C (20.4)	

Notes: (1) Numbers in brackets represent delay, in seconds, per vehicle of movement.
 (2) Numbers in parentheses represent intersection delay, in seconds per vehicle.
 * Calculated value was greater than 999.9 seconds.

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CONCLUSION

The conclusions of this study are as follows:

1. Future traffic volumes at the key study area intersections will be affected significantly by existing traffic volumes, traffic generated by a number of other approved but incomplete developments, background traffic growth, and traffic generated by the Ashburn Corporate Center development as proposed.
2. It is anticipated that approximately 3.4 million S.F. of non-residential development and nearly 800 residential dwelling units (D.U.) will be developed in the Route 625/640 corridor in the site vicinity by the year 2003 when Ashburn Corporate Center is anticipated to be fully built out. Approximately 4.2 million S.F. of additional non-residential use is anticipated to be developed on the WorldCom site located directly opposite Ashburn Corporate Center.
3. The traffic anticipated to be generated by Ashburn Corporate Center and the 15 other approved area developments can be accommodated by the planned network in both the years 2003 and 2013.
4. The following improvements are required to accommodate traffic generated by the Ashburn Corporate Center development upon buildout in 2003:
 - A. Provision of exclusive right-turn lanes into each of the site entrances on both Smiths Switch Road and Farmwell Road, as may be required by the Virginia Department of Transportation (VDOT).
 - B. Construction of exclusive left-turn deceleration lane on Smiths Switch Road at both Chillum Place and Hastings Drive, if required by VDOT.

- C. Provision of two (2) new traffic signals at the intersection of Hastings Drive and Smiths Switch Road and Hastings Drive and Gresham Court when warranted by VDOT.
 - D. Contribution towards the construction of an additional left-turn lane on both the east and westbound Farmwell Road approaches at the Smiths Switch Road intersection. This will result in the provision of dual lefts on both approaches of Farmwell Road. Dual lefts are necessary at this location in order to minimize conflicts with forecasted heavy eastbound and westbound through traffic and to facilitate the (re)allocation of green time.
 - E. Construction of the site entrances on Farmwell Road (Route 640) to provide for a minimum one (1) inbound and two (2) outbound lanes.
 - F. A pro-rata contribution towards the provision of a traffic signal at each site entrance on Route 640 when warranted by VDOT.
 - G. Contribution towards construction of a third westbound through lane on Route 640 along the site's frontage.
 - H. Re-stripe the northbound approach at the Panorama Parkway/Route 640 intersection to provide for dual left turn lanes, two (2) northbound through lanes, and a single free-flow right turn lane.
5. No additional roadway improvements other than those recommended for the year 2003 are required to serve the forecasted total future 2013 traffic volumes.

County of Loudoun
Department of Planning
MEMORANDUM

DATE: November 4, 1998 (11)
TO: Garvan R. Armstrong, Project Planner
FROM: Art Smith, Principal Transportation Planner *AS*
SUBJECT: SPEX 1998-0015, ASHBURN CORPORATE CENTER, LOTS 1-3
SPEX 1998-0016, ASHBURN CORPORATE CENTER, LOTS 4, 5
SPEX 1998-0017, ASHBURN CORPORATE CENTER, LOTS 2-17

BACKGROUND

The total amount of development at the buildout of the three requested special exceptions would be as follows:

1,526,600 S.F. of office park
278,400 S.F. of general office
173,400 S.F. of hotel (240 rooms)
<u>40,000 S.F. of restaurant uses</u>
Total 2,018,400 S.F.

The applicant's traffic analysis assumes this buildout will occur by forecast year 2003. In this time frame, it is assumed 4.2 million S.F. of non-residential use will be developed by WorldCom across Route 640/Route 625 from the Ashburn Corporate Center. The applicant's proposed level of development would generate approximately 24,550 vehicle trips per average weekday which includes a 15% discount for an assumed transportation demand management program. Currently approved development on the site would generate approximately 16,950 vehicle trips per average weekday. The difference in generated trips would be approximately 7,600 per average weekday or 45%. In addition to Ashburn Corporate Center and WorldCom 796 nearby residential units and 3,350,000 S.F. of non-residential development were assumed by 2003.

EXISTING, PLANNED AND PROGRAMMED ROADS

The site is bounded on the south by Route 640/Route 625. This is currently a median divided four-lane road with single left and right turn lanes. There are currently no traffic signals between

Smith Switch Road (Route 607) and Loudoun County Parkway/Panorama Parkway. Please see Attachment 1 Project Vicinity Map. Weekday traffic volumes on Route 640 west of Smith Switch Road are currently approximately 21,700. To the east weekday traffic volumes on Route 625 at the Broad Run Bridge are approximately 23,400. Existing level of service (LOS) at the Route 640/Smith Switch Road intersection is currently "A" in both peak periods. LOS "F" exists at Route 625/Panorama Parkway because of a failing southbound left turn movement from Panorama Parkway.

Route 640/Route 625 is planned to be a six-lane median divided road in a 120 foot right-of-way. An interchange is planned to be constructed at Route 28/Route 625 funded through public sector resources by year 2004. In addition, VDOT is designing expansion of the road to six lanes between the interchange and a point just west of the Broad Run Bridge. However, there are no public funds allocated at this time to construct the expansion to six lanes.

WorldCom has proffered significant improvements to the transportation system in the vicinity of this project, including:

- Extend Route 607 (Panorama Parkway/Loudoun Parkway) southward to Route 643 with a six (6) lane cross-section and separate left and right turn lanes at each WorldCom driveway and at all major intersections. The northbound approach at Panorama Parkway and Route 625 should provide for exclusive right and left turn lanes and three (3) northbound through lanes.
- Re-stripe the southbound approach on Panorama Parkway at Route 625 to accommodate two (2) through lanes and an exclusive left turn lane and an additional westbound left turn lane on Route 625.
- Construct a third eastbound through lane along the site frontage on Farmwell Road/Waxpool Road.
- Construct separate left and right turn lanes into each WorldCom driveway on Route 625.
- Contribute toward new traffic signals at the intersection of Route 625 with WorldCom Driveways located opposite the entrances to the Loudoun Station Lots.

Smith Switch Road is currently a four-lane undivided road between Route 640 and the future Hastings Drive. It transitions to a paved two-lane curb and gutter road running north along the project's border. Near the project's border, the road begins an unpaved section, curving east to its intersection with Panorama Parkway. The ultimate section for Smith Switch Road in the Countywide Transportation Plan (CTP) is a four-lane undivided U4 section in a 70-foot right-of-way. Please note the northern portion of the road (beyond this application's site) is planned to be realigned to intersect with Gloucester Parkway, rather than Panorama Parkway. Please see Attachment 2 CTP.

PROJECTED TRAFFIC VOLUMES/LEVELS OF SERVICE

Traffic volumes are forecasted to increase substantially on site proximate roads by anticipated buildout year 2003. Background traffic volumes (not including traffic from this development) are forecast to increase to 35,080 per average weekday on Route 640 west of the project site and 42,940 on Route 625 east of the project site. Background daily weekday volumes on Panorama Parkway north of Route 625 are forecast to be 13,340 and volumes on Loudoun Parkway south of Route 625 are forecast to be 24,790. All major intersections would operate at acceptable levels of service with improvements proffered by others.

Traffic from this project is forecast to primarily impact: Route 640 to the west (+5,200 daily trips), Route 625 to the east (+7,790 daily trips), Route 625 to the west (+10,610 daily trips). Total projected 2003 volumes are: Route 640 west of the site - 40,280, Route 625 east of the site - 50,730, Route 625 west of the site - 18,740, Loudoun County Parkway south of Route 625 - 27,320, Smith Switch Road between Hastings Drive and Route 620 - 15,000, Smith Switch Road between Hastings Drive and Chillum Place - 4,400.

TRANSPORTATION COMMENTS

1. This office agrees with VDOT that left and right turn lanes should be provided at all site entrances on Route 640/Route 625. Turn lanes also appear to be merited at the intersection of Smith Switch Road and Hastings Drive. The forecasted traffic volumes may not justify turn lanes at the future intersection of Smith Switch Road and Chillum Place. Further discussion with VDOT on this point would be helpful, as well as second eastbound left turn lane at the Route 640/Smith Switch Road intersection.
2. Full frontage improvements consistent with the Countywide Transportation Plan (CTP) should be provided on Smith Switch Road.
3. A traffic signal will be necessary at Route 640/Smith Switch Road. The application should provide a contribution sufficient to complete the funding of this section, which has partial funding through existing private sector commitments.
4. The applicant should provide a third westbound lane on Route 625/Route 640 along the project's frontage.
5. This office recommends the roadway identified as a private road running between Route 640 and Gresham Court should be a public road.
6. Interparcel access appears to be desirable between the Loudoun Station Land Bay and the two lots to the east.
7. The applicant has claimed a 15% TDM trip discount. If this is to be accepted by the County, similar to the WorldCom application, the applicant should agree to provide a detailed TDM plan to the County in the same time frame in which the WorldCom TDM is due. It would be very desirable to closely coordinate the two TDM plans. Without the commitment for such a plan, the 15% trip discount is not acceptable.
8. The applicant has claimed internal trip discounts of between 5% and 15% for internal hotel and restaurant trips and 1% for office internal trips. VDOT did not comment on these discounts. It is noted that if these discounts do not occur, levels of service could be

lower than forecast. Therefore, it is important that all requested road improvements be obtained.

9. An off-site road improvement contribution for the pavement of Smith Switch Road north of the site needs to be considered. The applicant's traffic study shows 1,810 daily trips taking this route, which is currently an unpaved road.
10. The applicant should be responsible for the installation of a traffic signal at Hastings Drive and Smith Switch Road when warranted. The traffic study does not indicate a need for signals at Smith Switch Road/Chillum Place.
11. Smith Switch Road was specified as a four-lane undivided road in the CTP based on currently approved land uses. The more intensive land uses proposed in this application produce traffic volumes between Hastings Drive and Route 640 at the level (14,000) which could justify a median divided road. VDOT's comments on this issue would be appreciated.
12. VDOT's recommendation on a trail along the Smith Switch frontage has great appeal. Lacking specific guidance from the CTP, Board of Supervisors policy direction/guidance would be appreciated.
13. The applicant should provide any remaining contribution necessary to fully fund traffic signals necessary at the joint entrances with WorldCom on Routes 640/625.
14. A noise analysis should be conducted for the hotel consistent with Policy 5.6 of the CTP.
15. Comprehensive Planning /Economic Development should comment on the assumed buildout year as to whether it is consistent with absorption trends and expectation for development in this area.

CONCLUSION

This office will provide appropriate conclusions once the issues discussed above are appropriately resolved.

ATTACHMENTS (2)

1. Project Vicinity Map
2. CTP Roads Service the Proposed Project