

A P P E N D I X 1

DESIGN GUIDELINES FOR MAJOR ROADWAYS COUNTYWIDE



Countywide Transportation Plan
July 5, 1995

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INTRODUCTION

The purpose of this document is to provide County staff, the development community and the general public with a guide for the planning, design, and coordination of improvements to the major roadways within Loudoun County. The County understands that in order for the actual roadway improvement or construction to be accepted into the state system, VDOT must approve the roadway design; therefore, VDOT standards must be utilized in conjunction with these guidelines. If any differences occur between this document and the adopted transportation maps, the maps govern.

For each roadway or roadway segment, there may be up to three phasing conditions: existing, interim, and ultimate. The conditions are not linked to a specific implementation schedule or time horizon (i.e., 10, 20, or more years). The following components are outlined in each condition for each roadway segment:

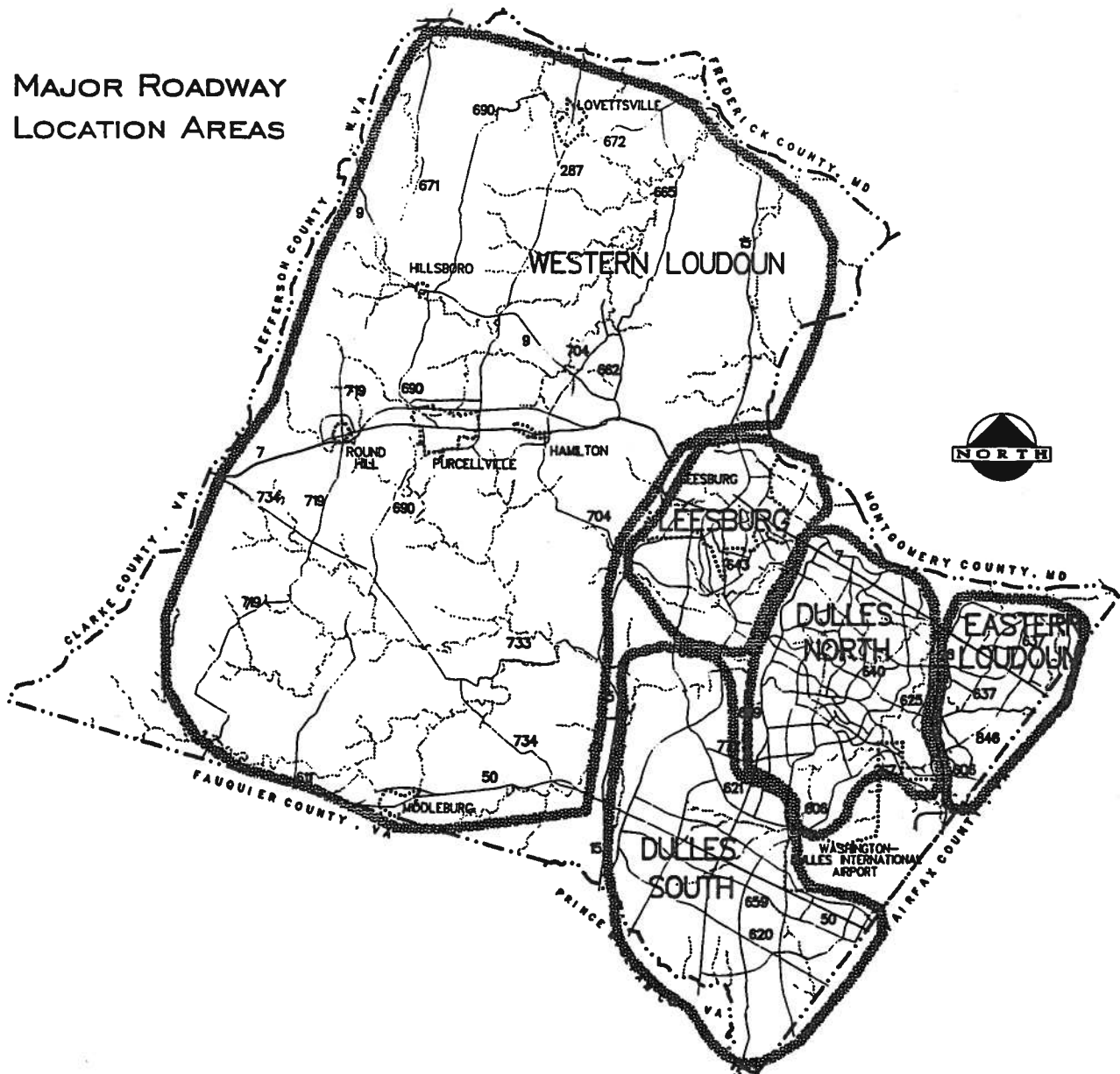
1. The *LOCATION* of the road segment (i.e., Eastern Loudoun Area and Dulles North Area) and a brief explanation of the alignment of the road *SEGMENT* in question (i.e., for Route 625/640 - Route 28 northwest to Route 641). The location/segment remains the same for each condition, unless specified otherwise.
2. The *FUNCTIONAL CLASSIFICATION* of each road segment, which ranges from minor collector to principal arterial. The functional classification for the existing roadways is consistent with the current VDOT classification system. The classification for the planned roadways expands upon the VDOT classification system. The range and definitions of the functional classifications are provided in the Glossary within this document. The Town of Leesburg has a different classification system; therefore, has classified the roadways within the town limits differently than the County (See Leesburg Town Plan).
3. The total *NUMBER OF LANES* and *RIGHT-OF-WAY (ROW)* required on each roadway segment (i.e. Four lanes/120 feet ROW). The roadways in the Town of Leesburg may have different ROW requirements (See Leesburg Town Plan).
4. A *DESCRIPTION* of the roadway segment, which includes the typical cross-section (undivided vs. divided and curb vs. ditch), design speed, and for future conditions, other additional improvements (i.e., turn lanes and interchanges).

Appendix 1: Design Guidelines for Major Roadways

The *ultimate condition* for each roadway or roadway segment stated in this document is foreseen by the County as the final condition. Also, ultimate condition may include roadway link improvements, such as increasing the number of lanes, and intersection improvements, such as turn lanes and/or interchanges. These improvements may or may not occur at the same time.

The design guidelines are not intended to propose roadway improvements within the incorporated towns beyond those identified in the town plans.

MAJOR ROADWAY LOCATION AREAS



GLOSSARY

- R2 - Rural two-lane undivided section with shoulders and ditches
- U2 - Urban two-lane undivided section with curb and gutter
- R4 - Rural four-lane undivided section with shoulders and ditches
- U4 - Urban four-lane undivided section with curb and gutter
- R4R - Rural four-lane median divided section with shoulders and ditches
- U4R - Urban four-lane median divided section with curb and gutter
- R6R - Rural six-lane median divided section with shoulders and ditches
- U6R - Urban six-lane median divided section with curb and gutter
- ROW - Right-of-Way

LOCAL ACCESS - Relatively unrestricted individual parcel access directly onto roadway. Individual residential parcel access highly discouraged, with access provided through interparcel connections and consolidated access points.

CONTROLLED ACCESS - Access onto divided roadways concentrated at median crossovers. Individual parcel access highly discouraged, with access provided through interparcel connections and consolidated access points.

LIMITED ACCESS - Access onto roadway restricted to grade separated interchanges. No at-grade access is allowed.

MINOR COLLECTOR - A roadway that carries traffic from local subdivision streets and rural secondary roads to major collectors and/or arterials.

MAJOR COLLECTOR - A roadway that carries traffic through the county, provides a connection between arterials, and is accessed by minor collectors and/or rural secondary roads.

MINOR ARTERIAL - A roadway that serves commuter traffic with access from major and minor collectors.

Appendix 1: Design Guidelines for Major Roadways

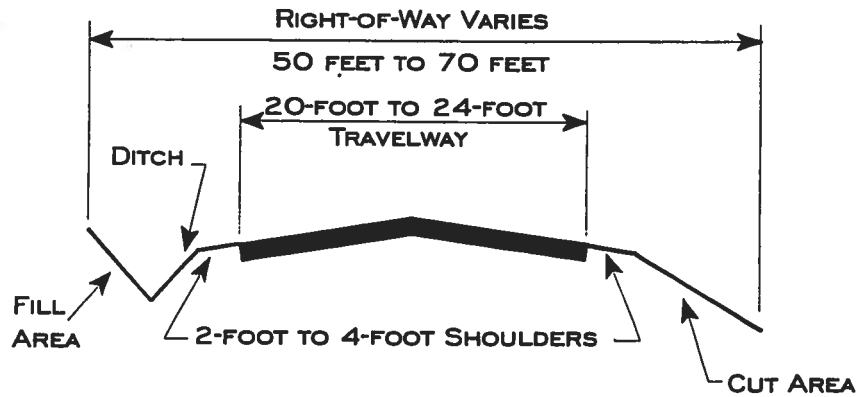
PRINCIPAL ARTERIAL - A roadway that serves regional and intrastate traffic with access from minor arterials and major collectors.

DESIGN SPEED - Recommended speed which sets the design standards for new and/or improved road sections. The design speed is usually 5 to 10 mph more than the posted speed limit. The design speed should be flexible to minimize the impact of the improvement on the existing corridor, while maintaining safety.

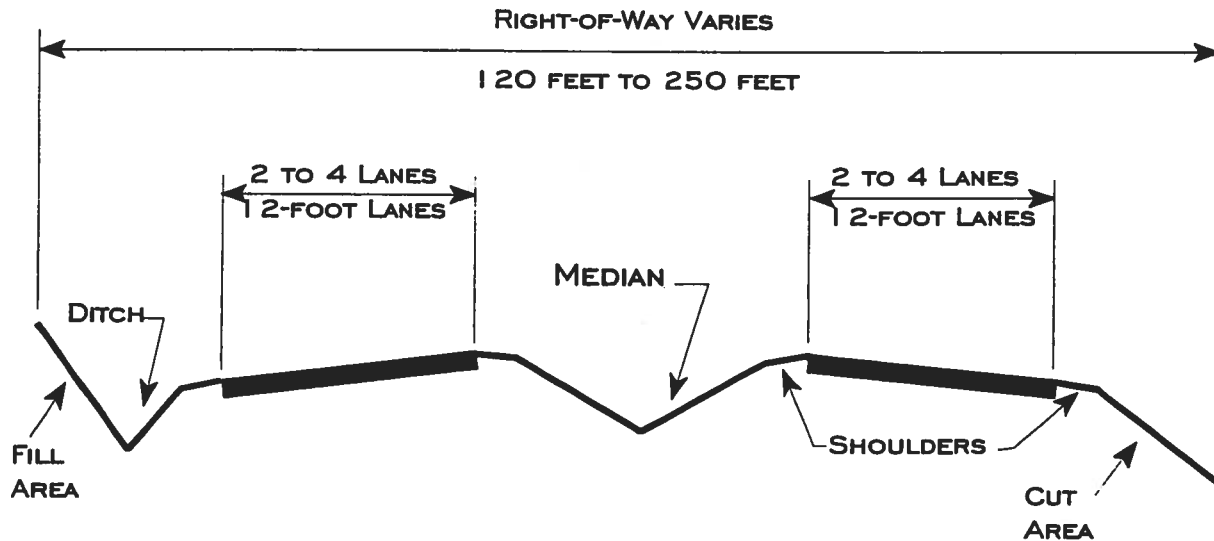
TYPICAL CROSS-SECTIONS

(NOT TO SCALE)

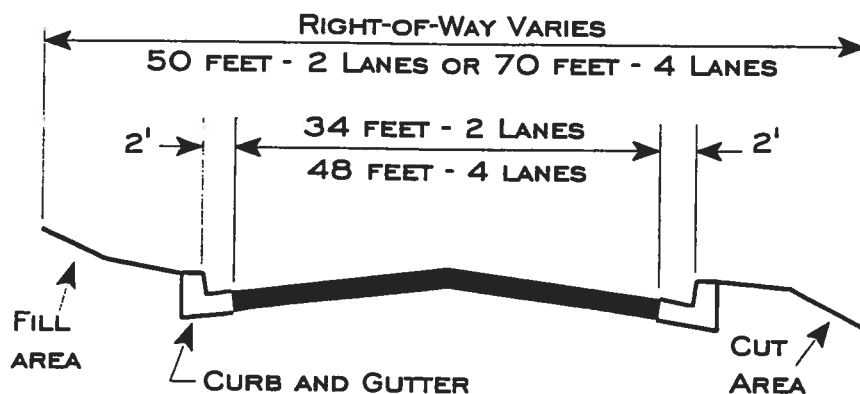
RURAL TWO-LANE SECTION



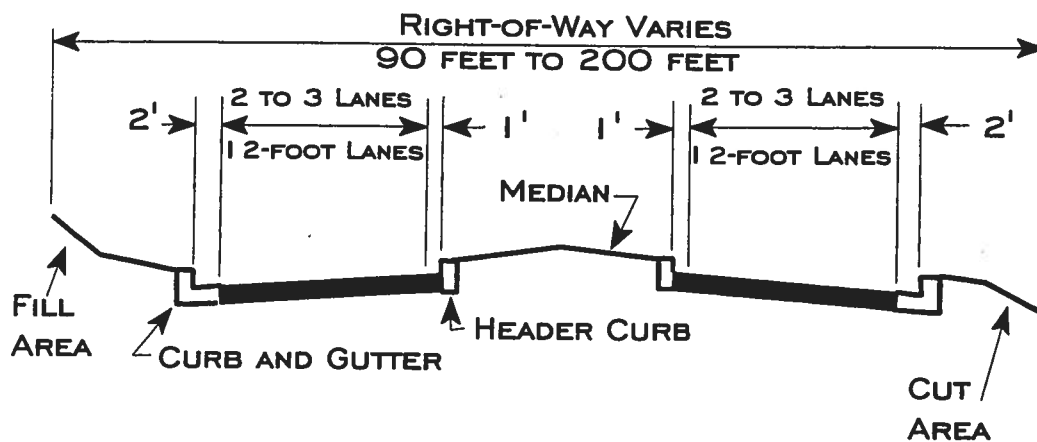
RURAL DIVIDED SECTION



URBAN UNDIVIDED SECTION



URBAN DIVIDED SECTION



ROUTE 7 (HARRY BYRD HIGHWAY)

Location/Segment: Eastern Loudoun Area/Fairfax County Line west to Countryside Boulevard

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Varies from four to six lanes/ROW Varies

Description: R4R/U4R/U6R. Local access median divided arterial with grade separated interchange at Cascades Parkway. Individual site access occurs along section. Design speed and median crossover spacing vary.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/ROW Varies, plus additional land dedication may required for right turn lanes at intersection which currently do not have right turn lanes.

Description: U6R. Controlled access median divided urban arterial with grade separated interchange at Cascades Parkway. Individual site access will be terminated. Left and right turn lanes at all intersections. Median crossovers will not increase from Existing Condition. Design speed to be determined by VDOT.

ROUTE 7 (HARRY BYRD HIGHWAY/EAST MARKET STREET)

Location/Segment: Eastern Loudoun, Dulles North, and Leesburg Areas/Countryside Boulevard west to Route 7/15 Bypass

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Varies from four to six lanes/ROW Varies

Description: R4R/U6R. Controlled access median divided arterial with grade separated interchanges at Route 28 and Route 7/15 Bypass. Left and right turn lanes at all intersections. Design speed and median crossover spacing vary.

INTERIM CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/200 foot ROW

Description: U6R. Controlled access median divided arterial with grade separated interchanges at Route 28 and Route 7/15 Bypass. Left and right turn lanes at all intersections. Median crossovers will not increase from Existing Condition. Design Speed to be determined by VDOT.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/200 foot ROW, plus land dedication required for interchanges.

Description: U6R. Limited access median divided urban arterial with grade separated interchanges at 1) Algonkian Parkway; 2) Route 607; 3) East Spine Road; 4) West Spine Road; 5) Route 659; 6) Crosstrail Blvd; and 7) Battlefield Pkwy. All at-grade access is terminated. Design Speed to be determined by VDOT.

ROUTE 7 (HARRY BYRD HIGHWAY)

Location/Segment: Western Loudoun Area/Route 7 (West Market Street) interchange west to Route 9 (Charles Town Pike) interchange

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Controlled access median divided rural arterial. Left and right turn at all intersections. Left and Right turn lanes at all intersections. Design speed varies and median crossover spacing no less than 900 feet.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/ 200 foot ROW

Description: R6R. Limited access median divided rural arterial. All at-grade access is terminated. Design speed to be determined by VDOT.

ROUTE 7 (HARRY BYRD HIGHWAY)

Location/Segment: Western Loudoun Area/Route 9 (Charles Town Pike) interchange west to Route 7 (Business) interchange at Round Hill

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Limited access median divided rural arterial with grade separated interchanges at 1) Route 9; 2) Route 704 (Hamilton Station Road); 3) Route 287 (Berlin Turnpike); and 4) Route 7 (Business) at Round Hill. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/ 200 foot ROW

Description: R6R. Limited access median divided rural arterial with Existing Condition upgraded to six lanes and grade separated interchange at Route 690. Design speed to be determined by VDOT.

ROUTE 7 (HARRY BYRD HIGHWAY)

Location/Segment: Western Loudoun Area/Route 7 (Business) interchange at Round Hill west to Clarke County Line

EXISTING/ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Controlled median divided rural arterial. Left and Right turn lanes at all intersections. Design speed varies and median crossover spacing no less than 900 feet.

ROUTE 7 (LEESBURG BYPASS)

Location/Segment: Leesburg Area/Dulles Greenway interchange west and north to Route 7 (West Market Street) interchange

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Limited access median divided rural arterial. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/ 200 foot ROW

Description: U6R. Limited access median divided urban arterial with Existing Condition upgraded to six lanes. Design speed to be determined by VDOT.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 7/15 (LEESBURG BYPASS)

Location/Segment: Leesburg Area/Route 7 (East Market Street) interchange south and west to the Dulles Greenway interchange

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Controlled access median divided rural arterial. Left and right turn lanes at Sycolin Road intersection. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/ 200 foot ROW

Description: U6R. Limited access median divided urban arterial with Sycolin Road crossing over/under, existing intersection is terminated. Design speed to be determined by VDOT.

ROUTE 15 (LEESBURG BYPASS)

Location/Segment: Leesburg Area/Route 7 (East Market Street) interchange north to Route 15 Business

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Two and Four lanes/200 foot ROW

Description: R2/R4R. Control access undivided/median divided rural arterial. Design speed varies.

INTERIM CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/200 foot ROW

Description: R4R. Control access median divided rural arterial. Left and right turn lanes at all intersections. Design speed and median spacing to be determined by VDOT.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/ 200 foot ROW

Description: U4R. Limited access median divided urban arterial with grade separated interchanges at Edwards Ferry Road and Battlefield Parkway. All existing at grade intersections will be terminated. Design speed to be determined by VDOT.

ROUTE 15 (JAMES MONROE HIGHWAY)

Location/Segment: Western Loudoun and Leesburg Areas/Prince William County Line north to Leesburg Town Line

EXISTING CONDITION:

Functional Classification: Minor Arterial/Scenic Byway (Route 50 north)

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access rural arterial. Right turn lanes at major intersections. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial/Scenic Byway (Route 50 north)

Lanes/Right of Way: Two lanes/ROW varies, plus land dedication may be required for Route 50 interchange and turn lanes

Description: R2. Local access undivided rural arterial with grade separated interchange at Route 50. Left and right turn lanes required at all major at-grade intersections. Design speed varies.

ROUTE 15 (KING STREET)

Location/Segment: Leesburg Area/Leesburg Town Line north to Route 15/7 Bypass

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes and four lanes/ROW varies

Description: R2/R4R. Local and controlled access rural arterial. Left and right turn lanes at major intersections. Design speed varies.

ROUTE 15 (JAMES MONROE HIGHWAY)

Location/Segment: Western Loudoun Area/Route 15 Business (King Street) in Leesburg north to Maryland State Line

EXISTING CONDITION:

Functional Classification: Principal Arterial/Scenic Byway

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access rural arterial. Right turn lanes at major intersections. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Principal Arterial/Scenic Byway

Lanes/Right of Way: Two lanes/ROW varies, plus land dedication may be required for turn lanes

Description: R2. Local access undivided rural arterial. Left and right turn lanes required at all major intersections. Design speed varies.

ROUTE 28 (SULLY ROAD)

Location/Segment: Eastern Loudoun Area/Fairfax County line north to Route 7

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/180-foot ROW

Description: R6R. Controlled access median divided arterial with grade separated interchanges at Route 267 (Dulles Toll/Access Road) and Route 7. Left and right turn lanes at all intersections. Design speed and median crossover spacing vary.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes north of Route 606 and Eight lanes south of Route 606/180 foot ROW, plus land dedication required for interchanges.

Description: R6R. Limited access median divided rural arterial with additional grade separated interchanges at 1) Innovation Ave.; 2) Route 606; 3) Route 846; 4) Route 625; and 5) Route 638/Route 647. All at-grade access is terminated. Design speed to be determined by VDOT.

ROUTE 50 (JOHN MOSBY HIGHWAY)

Location/Segment: Dulles South Area/Fairfax County Line west to Route 15

EXISTING CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes from County line to just west of Route 616 and two lanes from four lane section to Route 15/ROW Varies

Description: R4R/R2. Local access Median divided/undivided rural arterial. Individual site access occurs along section. Design speed varies and median crossover spacing varies on four lane section.

INTERIM CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/200 foot ROW

Description: R6R. Controlled access median divided rural arterial. Left and right turn lanes required at all intersections. Design speed to be determined by VDOT and median crossovers will not increase from Existing condition.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/200 foot ROW, plus land dedication required for interchanges

Description: R6R. Limited access median divided rural arterial with grade separated interchanges at 1) Dulles South Blvd; 2) South Riding Spine Road; 3) Route 606; 4) West Spine Road (Old Route 659); 5) Route 659 Relocated; 6) The Lenah Connector (West Dulles Boulevard); 7) Route 860; and 8) Route 15. All at-grade access will be terminated. Design speed to be determined by VDOT.

ROUTE 50 (JOHN MOSBY HIGHWAY)

Location/Segment: Western Loudoun Area/Route 15 west to Falquier County Line just west of Middleburg

EXISTING CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural arterial. Individual site access occurs along section. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ ROW varies, plus land dedication for Route 15 interchange and dedication of 120-foot ROW will be required for bypass alignments

Description: R4R. Controlled access divided rural arterial with grade separated interchange at Route 15. Left and right turn lanes required at all at-grade intersections. Design speed and desirable median crossover spacing to be determined by VDOT.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 50 BUSINESS (JOHN MOSBY HIGHWAY)

Location/Segment: Western Loudoun Area/Existing alignments in Town of Middleburg and Village of Aldie

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural arterial. Individual site access occurs along section. Design speed varies.

ROUTE 267 (DULLES GREENWAY)

Location/Segment: Dulles North and Leesburg Areas/Route 28 at Fairfax County line northeast to Route 15/7 Bypass

EXISTING CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Four lanes/250-foot ROW

Description: R4R. Limited access median divided rural toll arterial with grade separated interchanges at 1) Route 28; 2) Route 607 Extended; 3) East Spine Road; 4) West Spine Road; 5) Route 659; and 6) Route 15/7 Bypass. ≥ 60 mph design speed.

ULTIMATE CONDITION:

Functional Classification: Principal Arterial

Lanes/Right of Way: Six lanes/250-foot ROW

Description: R6R. Limited access median divided rural toll arterial with additional grade separated interchanges at 1) Crosstrail Boulevard; 2) Route 643; and 3) Battlefield Parkway. ≥ 60 mph design speed.

EASTERN LOUDOUN AREA

ROUTE 7 STERLING NORTH COLLECTOR

Location/Segment: Eastern Loudoun Area/Augusta Drive east to Lakeland Drive

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: U2. Local access undivided urban collector. Two lane section consist of 19 feet travel lanes to accommodate parking on one side of street and turn turning movements. 40 mph design speed.

ROUTE 28 EAST COLLECTOR (ATLANTIC BOULEVARD)

Location/Segment: Eastern Loudoun Area/Route 625 north to Route 7

EXISTING CONDITION:

Segment: From just south of Steeplechase Drive north to just north of East Severn Way

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90 foot ROW

Description: U4R. Controlled access median divided urban collector will share grade separated interchange at Route 7 with Algonkian Parkway. Left and right turn lanes required at all intersections. 40 mph design speed and median crossover spacing no less than 600 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90 foot ROW, plus land dedication required for Route 7 interchange.

Description: U4R. Controlled access median divided urban collector will share grade separated interchange at Route 7 with Algonkian Parkway. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet for new segments.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 28 EAST COLLECTOR (DAVIS DRIVE)

LOCATION/SEGMENT: EASTERN LOUDOUN AREA/ROUTE 606 NORTH TO ROUTE 625

EXISTING CONDITION:

Segment: From approx 3,300 feet south of Route 846 north to just north of Shepard Drive

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector with left and right turn lanes required at major intersections. 40 mph design speed.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector with left and right turn lanes required at major intersections. 40 mph design speed for new segments.

ROUTE 209 (INNOVATION AVENUE)

Location/Segment: Eastern Loudoun Area/Route 28 east to Fairfax County line

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ROW Varies

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes at Route 28 and all other intersections. 40 mph design speed and median crossover spacing no less than 600 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90 foot ROW, plus land dedication required for Route 28 interchange.

Description: U4R. Controlled access median divided urban collector with grade separate interchange at Route 28 and connection to Rock Hill Road in Fairfax County. Left and right turn lanes at all other at-grade intersections. Design speed and median crossover spacing same as Existing Condition.

ROUTE 604 (SUGARLAND ROAD)

Location/Segment: Eastern Loudoun Area/Fairfax County line west to Route 625

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access rural collector.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 605 (ROCK HILL ROAD)

Location/Segment: Eastern Loudoun Area/Route 606 south into Fairfax County

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural collector. Design speed varies.

Ultimate Condition:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector possible connection to Innovation Avenue in Fairfax County. Left and right turn lanes required at major intersections. 40 mph design speed.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 625 (CHURCH ROAD)

Location/Segment: Eastern Loudoun Area/Route 604 (Sugarland Road) west to Route 846 (Sterling Blvd)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access urban collector with parking one side. 20 feet - 44 feet travel ways. Design speed varies.

ROUTE 625 (CHURCH ROAD)

Location/Segment: Eastern Loudoun Area/Route 846 (Sterling Blvd) west to Route 637 (Potomac View Road)

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: U2. Local access urban collector with parking on one side. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 625 (CHURCH ROAD)

Location/Segment: Eastern Loudoun Area/Route 637 (Potomac View Blvd) west to Ruritan Circle (west)/Atlantic Boulevard

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural collector. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/100 foot ROW

Description: U4R. Local access undivided urban collector with left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 625 (CHURCH ROAD)

Location/Segment: Eastern Loudoun Area/Ruitan Circle (west)/Atlantic Boulevard west to Route 28

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ROW Varies

Description: U4. Local access undivided urban collector. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW, plus land dedication required for new alignment and Route 28 interchange

Description: U4R. Limited access divided urban collector with grade separated interchange at Route 28. Road alignment shifted north of existing alignment to provide desirable interchange design. Left and right turn lanes required at Atlantic Blvd. intersection. 50 mph design speed.

ROUTE 634 (MORAN ROAD)

LOCATION/SEGMENT: Eastern Loudoun Area/Route 625 south to Route 789

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural unpaved secondary road. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

LOCATION/SEGMENT: Eastern Loudoun Area/Pacific Boulevard south to Route 789

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector. Access to Route 625 will be terminated. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 636 (SHAW ROAD)

Location/Segment: Eastern Loudoun Area/Innovation Drive north to Route 606

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural unpaved secondary road. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 636 (SHAW ROAD)

Location/Segment: Eastern Loudoun Area/Route 606 north to Route 625 (Church Road)

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided rural collector. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector realigned to the east to Davis Drive just south of Route 625 (Church Road). Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 637 (POTOMAC VIEW ROAD)

Location/Segment: Eastern Loudoun Area/Route 625 north to Cascades Parkway (at Nokes Blvd)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90 foot ROW

Description: U4R. Controlled access median divided urban collector. Single left and right turn lanes required at all intersections. 40 mph design speed and minimum 600 feet median crossover spacing.

ROUTE 637 (POTOMAC VIEW ROAD)

Location/Segment: Eastern Loudoun Area/Cascades Parkway (at Nokes Blvd) east and north to Route 7

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access rural collector with 8 feet wide travel lanes

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two and four lanes/70-foot ROW

Description: R2/U4. Local access undivided rural collector with 12 feet wide travel lanes and four-lane undivided urban collector between Benedict Drive and Route 7. 40 mph design speed.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 637 (POTOMAC VIEW ROAD)

Location/Segment: Eastern Loudoun Area/Route 7 north to Algonkian Parkway

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/110-foot ROW

Description: R4R. Controlled access median divided rural collector with left and right turn lanes at all intersections. 45 mph design speed and crossover spacing greater than or equal minimum 650 feet.

ROUTE 638 RELOCATED (NOKES BOULEVARD)

Location/Segment: Eastern Loudoun Area/Atlantic Boulevard east to Route 637/Cascades Parkway

EXISTING CONDITION:

Segment: Route 637/Cascades Parkway intersection west approx. 2,700 feet (within Loudoun Tech Center)

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/110-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at major intersections. 45 mph design speed and median crossover spacing greater than or equal to 650 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/110-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at major intersections. 45 mph design speed and desirable median crossover spacing 800 feet for new segment.

ROUTE 638 RELOCATED (NOKES BOULEVARD)

Location/Segment: Eastern Loudoun Area/Route 28 (at Gloucester Pkwy) east to Atlantic Boulevard

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at Route 28 and Atlantic Blvd. intersections. 45 mph design speed.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 28 interchange and at Atlantic Blvd. intersection for turn lanes.

Description: U6R. Limited access median divided urban collector with grade separated interchange at Route 28. Left and right turn lanes at Atlantic Blvd. intersection. 45 mph design speed.

ROUTE 679 (WOODLAND ROAD)/ROUTE 847 (EAST SEVERN WAY)

Location/Segment: Eastern Loudoun Area/Route 28 east to Route 637 (Potomac View Blvd)

EXISTING CONDITION:

Segment: Woodland Road - Route 637 (Potomac View Road) west to terminus just west of Cedar Lane; and E. Severn Way -Route 28 east to Atlantic Blvd

Functional Classification: Minor Collector

Lanes/Right of Way: Two and Four lanes/min 70-foot ROW

Description: R2/U4. East Severn Way is a local access undivided rural/urban collector from Route 28 east to Atlantic Blvd. Design speed varies. U4. Woodland Road is a local access undivided urban collector from just east of Atlantic Blvd east to Route 637. 40 mph design speed.

INTERIM/ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, 90 foot ROW within 225 feet of major intersections

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed. When Route 28 becomes limited access, at-grade intersection with Route 28 will be terminated.

ROUTE 846 (STERLING BOULEVARD)

Location/Segment: Eastern Loudoun Area/Route 28 north to Davis Drive

EXISTING CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/110-foot ROW

Description: U4R. Controlled access median divided urban arterial. Left and right turn lanes at all intersections. 40 mph design speed and median crossovers at Shaw Road., Glenn Dr., and Davis Dr. intersections.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 28 interchange and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban arterial. Left and right turn lanes required at existing intersections. Section to be realigned to the north at Route 28 interchange. 40 mph design speed and median crossovers at existing intersections.

ROUTE 846 (STERLING BOULEVARD)

Location/Segment: Eastern Loudoun Area/Davis Drive north to Route 7

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ROW Varies

Description: U4R. Controlled access median divided urban arterial. 40 mph design speed and median crossover locations same as Existing Condition.

ROUTE 1570 (COUNTRYSIDE BOULEVARD)

Location/Segment: Eastern Loudoun Area/Route 7 north to Algonkian Parkway

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/approx. 120-foot ROW

Description: U4R. Controlled access divided urban collector. Left and right turn lanes at all intersections. 40 mph design speed and median crossover spacing greater than or equal to 600 feet.

ROUTE 1582 (ALGONKIAN PARKWAY)

Location/Segment: Eastern Loudoun Area/Broad Run Access Road east to Route 7 (at Holly Knoll Dr. in Fairfax County)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R/R4R. Controlled access median divided urban and rural arterial with left and right turn lanes at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

ROUTE 1582 (ALGONKIAN PARKWAY)

Location/Segment: Eastern Loudoun Area/Route 7 (at Atlantic Blvd) north to terminus of existing segment of Algonkian Pkwy. at the Broad Run Access Road.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ 120-foot ROW, plus land dedication required for Route 7 interchange.

Description: R4R. Limited access median divided rural arterial with a shared interchange with Atlantic Blvd. at Route 7. Left and right turn lanes required at the Broad Run Access Road. intersection. 50 mph design speed.

ROUTE 1794 (CASCADES PARKWAY)

Location/Segment: Eastern Loudoun Area/Route 637 (at Nokes Blvd) north to Algonkian Parkway

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Route 7. Left and right turn lanes at all at-grade intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

ROUTE 1795 (PALISADE PARKWAY)

Location/Segment: Eastern Loudoun Area/Route 637 (Potomac View Road) west to Route 777 (at Route 7)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120 feet ROW

Description: U4R. Controlled access divided urban collector. Left and right turn lanes at major intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

Appendix 1: Design Guidelines for Major Roadways

AUGUSTA DRIVE

Location/Segment: Eastern Loudoun Area/Route 7 north to Seneca Ridge Drive

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70 feet ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes at major intersections. 40 mph design speed.

CITY CENTER BOULEVARD (DULLES TOWN CENTER DEVELOPMENT)

Location/Segment: Eastern Loudoun Area/Route 638 Relocated (Nokes Blvd) north to Route 7 at Countryside Boulevard

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

DULLES NORTH AREA

ROUTE 7 NORTH COLLECTOR (RIVERSIDE PARKWAY)

Location/Segment: Dulles North and Leesburg Areas/ Panorama/Loudoun Parkway west to California Road/River Creek Pkwy (west of Goose Creek)

EXISTING CONDITION:

Segment: Claiborne Parkway east to Woodridge Parkway (within Lansdowne)

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

INTERIM CONDITION:

Segment: Panorama/Loudoun Parkway west to just east of Goose Creek

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet for new segments.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes east of Goose Creek and Four lanes west of creek/ 120-foot ROW

Description: U4R/U6R. Controlled access median divided urban collector with bridge over Goose Creek and existing and interim conditions upgraded to six lanes. Left and right turn lanes at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet for new segment.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 7 SOUTH COLLECTOR (RUSSELL BRANCH PARKWAY)

LOCATION/SEGMENT: Dulles North Area/Pacific Boulevard west to Route 659

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW

Description: U6R. Controlled access median divided urban collector upgraded to six lanes. Left and right turn lanes at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 28 WEST COLLECTOR (PACIFIC BOULEVARD)

Location/Segment: Dulles North Area/Route 606 north to just south of W&OD trail crossing

EXISTING CONDITION:

Segments: Route 606 north to approx. 1000 feet north of Indian Creek Drive and Prentice Drive north to Route 625 and north to northern Auto World Drive intersection

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/110-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and median crossover spacing no less than 600 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/110-foot ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet on new segments.

ROUTE 28 WEST COLLECTOR (PACIFIC BOULEVARD)

Location/Segment: Dulles North Area/South of W&OD ROW north to Route 7 South Collector (Russell Branch Parkway)

EXISTING CONDITION:

Segment: West Severn Way north approx. 700 feet

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed on new segments.

ROUTE 606 (OLD OX ROAD)

Location/Segment: Eastern Loudoun Area/Fairfax County Line west to Shaw Road

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 45 mph design speed and median crossover spacing no less than 650 feet.

ROUTE 606 (OLD OX ROAD)

Location/Segment: Eastern Loudoun and Dulles North Areas/Shaw Road west to Pacific Boulevard

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes at all at-grade intersections. 45 mph design speed and median crossovers only at major intersections, spacing no less than 650 feet.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 28 interchange and for turn lanes at intersections.

Description: U6R. Limited access median divided urban collector with grade separated interchange at Route 28. Left and right turn lanes required at Shaw Road and Pacific Blvd. intersections. 50 mph design speed.

ROUTE 606 (OLD OX ROAD)

Location/Segment: Dulles North and Dulles South Areas/Pacific Boulevard west and south to Route 50

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW varies 80 feet-90 feet and Four lanes/ 120-foot ROW

Description: R2/U4R. Controlled access median divided collector with left and right turn lanes at all intersections east of grade separated interchange at Dulles Greenway and local access undivided rural collector west of the interchange. Design speed varies on two-lane segment and 50 design speed on four-lane segment.

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at the Dulles Greenway. Left and right turn lanes required at all at-grade intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 50 interchange and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector with grade separated interchange at the Dulles Greenway and Route 50. Left and right turn lanes at all at-grade intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

ROUTE 607 (PANORAMA/LOUDOUN PARKWAY)

Location/Segment: Dulles North Area/Route 7 North Collector (Riverside Parkway) south to Route 625

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two and Four lanes/ 30 feet Easement and 120-foot ROW

Description: R2. Local access unpaved rural road with 7 feet travel lanes from just north of Russell Branch south to Redskin Drive. U4R. Controlled access median divided urban arterial from Route 7 south to just north of Russell Branch and from Redskin Drive south to Route 625. Left and right turn lanes at major intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

INTERIM CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban arterial with left and right turn lanes required at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet for upgraded segment between existing four lane segments.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for Route 7 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban arterial upgraded to six lanes with grade separated interchange at Route 7. Left and right turn lanes at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet for new segments.

ROUTE 607 (PANORAMA/LOUDOUN PARKWAY)

Location/Segment: Dulles North Area/Route 625 south to Dulles Greenway

INTERIM CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban arterial with grade separated interchange at Dulles Greenway. Left and right turn lanes required at all at-grade intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication may be required for turn lanes at intersections.

Description: U6R. Controlled access median divided urban arterial upgraded to six lanes with grade separated interchange at Dulles Greenway. Left and right turn lanes at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

OLD ROUTE 607 (SMITH SWITCH ROAD)

Location/Segment: Dulles North Area/Route 640 north and east to Route 607 (Panorama/Loudoun Pkwy)

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access unpaved/paved rural secondary road.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 625 (WAXPOOL ROAD)

Location/Segment: Dulles North Area/Route 28 west to Pacific Boulevard

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ROW Varies

Description: U4R. Controlled access divided urban collector. Left and right turn lanes at all intersections. 40 mph design speed and median crossover spacing no less than 600 feet.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for new alignment and Route 28 interchange

Description: U6R. Limited access divided urban collector with grade separated interchange at Route 28. Road alignment shifted north of existing alignment to provide desirable interchange design. Left and right turn lanes required at Pacific Boulevard. 50 mph design speed.

ROUTE 625 (WAXPOOL ROAD)/ROUTE 640 (FARMWELL ROAD)

Location/Segment: Dulles North Area/Pacific Boulevard west to Route 641 (Ashburn Road)

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ROW Varies

Description: U4R. Controlled access divided urban collector. Left and right turn lanes at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/min 120-foot ROW

Description: U6R. Controlled access divided urban collector. Left and right turn lanes at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

ROUTE 625 (WAXPOOL ROAD)

EXISTING CONDITION:

Location/Segment: Dulles North Area/Route 640 (Farmwell Road) & Old Route 607 (Smith Switch Road) intersection west through Village of Ryan to Route 659

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved and unpaved rural collector with 7- to 11-foot travel lanes.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Segment: Ryan Bypass west through Village of Ryan to Dulles Greenway overpass

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW, plus land dedication for turn lanes at major intersections

Description: U4. Local access undivided urban collector with left and right turn lanes required at major intersections. 40 mph design speed.

ULTIMATE CONDITION:

Segments: Route 640 west to Ryan Bypass and Dulles Greenway overpass west to Route 659 (Belmont Ridge Road)

Functional Classification: Major Collector, east of Ryan Bypass and
Minor Collector, west of Dulles Greenway

Lanes/Right of Way: Four lanes/90 foot ROW, plus land dedication for turn lanes at major intersections

Description: U4R. Local access divided urban collector. New alignment shifting north and west just east of Route 659 to bypass the village of Waxpool, and existing alignment through Waxpool to remain local road. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 641 (ASHBURN ROAD)

Location/Segment: Dulles North Area/Route 7 south to approx. 2,400 feet south of Gloucester Parkway, just north of the Village of Ashburn

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Three lanes/ROW Varies

Description: Local access paved rural collector with one southbound and two northbound lanes.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided rural collector. Route 7 intersection terminated when West Spine Road/Route 7 interchange is constructed. Cul-de-sac will be just south of Route 7. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 641 (ASHBURN ROAD)

Location/Segment: Dulles North Area/Approx. 2,400 feet south of Gloucester Parkway south through the Village of Ashburn to Beaverdam bridge.

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural collector with 9-foot travel lanes.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: U2. Local access undivided rural collector with on street parking. Left and right turn lanes may be required at major intersections. 40 mph design speed.

ROUTE 641 (ASHBURN ROAD)

Location/Segment: Dulles North Area/Beaverdam bridge south to Route 643

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural collector with 9-foot travel lanes.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided rural collector. Extended from Route 643 south to intersect with Route 625. Left and right turn lanes required at major intersections. 40 mph design speed.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 642 (HAY ROAD)

Location/Segment: Dulles North Area/Route 659 east to just east of West Spine Road

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural secondary road with 7- to 9-foot travel lanes

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 642 (HAY ROAD)

Location/Segment: Dulles North Area/Just east of West Spine Road east to Route 641

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural secondary road with 7- to 9-foot travel lanes

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: U2. Local access undivided urban collector with 38-foot wide cross section. Left and right turn lanes may be required at major intersections. 40 mph design speed.

ROUTE 643 (SHELLHORN ROAD)

Location/Segment: Dulles North Area/Village of Ryan southeast to Route 607 Extended (Panorama/Loudoun Parkway)

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access unpaved rural secondary road with 7-foot travel lanes, and cul-de-sacs approximately two miles southeast of the Village of Ryan.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/70 feet to 120-foot ROW

Description: U4/U4R. Controlled access median divided urban collector from just south of town to Panorama/Loudoun Parkway. U4. Local access collector in town to just south connecting to the U4R section. Alignment in the town will be shifted east of existing Route 625/Route 772/Route 643 intersection. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 643 COLLECTOR ROAD

Location/Segment: Dulles North Area/Route 643 west to Greenway Transit Connector, Cul-de-sac just to the west of intersection (north side of Dulles Greenway)

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 643 EXTENDED (LOUDOUN PARKWAY CENTER DEVELOPMENT)

Location/Segment: Dulles North Area/Route 607 Extended (Panorama/Loudoun Parkway) southeast to Greenway Loop Road

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Appendix 1: Design Guidelines for Major Roadways

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 645 (CROSON LANE)

Location/Segment: Dulles North Area/East Spine Road (Route 772 Relocated) west to Route 659

EXISTING CONDITION:

Segment: Route 772 west to just east Route 659

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access unpaved rural secondary road with 6-foot travel lanes.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 645 EXTENDED (WESTWIND DRIVE)

Location/Segment: Dulles North Area/Route 606 north/west to East Spine Road (Route 772 Relocated)

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with bridge over Broad Run. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 659 (BELMONT RIDGE ROAD)

Location/Segment: Dulles North Area/Route 7 south to just north of Route 772

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided paved rural collector with 9- to 10-foot travel lanes. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

INTERIM CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at the Dulles Greenway. Left and right turn lanes required at all at-grade intersections. 60 mph design speed and desirable median crossover spacing 1000 feet.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 7 interchange, new alignment, and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchange at Route 7 and the Dulles Greenway. Route 7 interchange location will be east of existing Route 659/Xerox Dr/Route 7 at-grade intersection. Left and right turn lanes at all at-grade intersections. 60 mph design speed and desirable median crossover spacing 1000 feet.

ROUTE 659 EXTENDED (LANSDOWNE DEVELOPMENT)

Location/Segment: Dulles North Area/Route 7 North Collector (Riverside Parkway) south to Route 7

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided rural road.

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes required at all at-grade intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication required for Route 7 interchange, new alignment, and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six with grade separated interchange at Route 7. Interchange location will be east of existing Route 659/Route 7 at-grade intersection. Left and right turn lanes at all at-grade intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

ROUTE 772 (RYAN ROAD)

Location/Segment: Dulles North Area/Route 607 (Panorama/Loudoun Parkway) west to Route 659 Realigned

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural road with 8-foot travel lanes.

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. Prior to Loudoun Parkway construction south of Route 772, Route 772 and Loudoun Parkway (east/west segment between Route 772 and Greenway) will be mainline. Once Loudoun Parkway is constructed south of Route 772, Loudoun Parkway will become the mainline and Route 772 will "T" into Loudoun Parkway. 50 mph design speed and desirable median crossover spacing 900 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchanges at Route 7 and Dulles Greenway. Left and right turn lanes at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

ROUTE 772 (RYAN ROAD)

Location/Segment: Dulles South Area/Route 659 Realigned to Route 621

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural road with 8-foot travel lanes.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70-foot ROW

Description: U4. Local access undivided rural collector. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 772 RELOCATED (EAST SPINE ROAD)

Location/Segment: Dulles North Area/Route 640 south and west to Route 772/Route 607 (Panorama/Loudoun Parkway)

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Dulles Greenway. Left and right turn lanes required at all at-grade intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchange at Dulles Greenway. Left and right turn lanes at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 789 EXTENDED (RYAN BYPASS)

Location/Segment: Dulles North Area/Existing Route 789 (east of Broad Run) northwest over Broad Run to Route 625 (Waxpool Road)

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90 foot ROW

Description: U4R. Controlled access divided urban collector with left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 846 EXTENDED (STERLING BOULEVARD)

Location/Segment: Dulles North Area/Pacific Boulevard east to Route 28 (at Sterling Blvd)

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW, plus land dedication required for Route 28 interchange

Description: U4R. Limited access divided urban collector with grade separated interchange at Route 28. Left and right turn lanes at Pacific Blvd. intersection. 40 mph design speed.

ROUTE 900 (ASHBURN FARM PARKWAY)

Location/Segment: Dulles North Area/Route 641 (Ashburn Road) west to Route 659 (Belmont Ridge Road)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access divided urban collector. Left and right turn lanes at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

ROUTE 90 I (CLAIBORNE PARKWAY)/LANSDOWNE BOULEVARD

Location/Segment: Dulles North and Dulles South Areas/Route 7 North Collector (Riverside Parkway) south to Loudoun Parkway

EXISTING CONDITION:

Segments: Riverside Parkway south to Route 7 and Hay Road south to Dulles Greenway

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Dulles Greenway on segment within Ashburn Farm. Left and right turn lanes at all at-grade intersections. 50 mph design speed and median crossover spacing no less than 700 feet.

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW, plus land dedication for Route 7 interchange

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Dulles Greenway and Route 7. Left and right turn lanes at all at-grade intersections. 50 mph design speed and median crossover spacing no less than 700 feet. 50 mph design speed and desirable median crossover spacing 900 feet on new segments.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for Route 7 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchanges at Route 7 and Dulles Greenway. Left and right turn lanes at all intersections. 50 mph design speed and median crossover spacing no less than 700 feet on existing segments and desirable spacing of 900 feet on interim segments.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 2020 (ASHBURN VILLAGE BOULEVARD)

Location/Segment: Dulles North Area/Route 7 south to Route 640

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: R4R. Controlled access median divided rural collector with left and right turn lanes required at all intersections. 45 mph design speed and median crossover spacing no less than 650 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for Route 7 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchanges at Route 7. Route 7 interchange location will be just east of existing Ashburn Village Blvd/Route 7 at-grade intersection. Left and right turn lanes at all intersections. 45 mph design speed and median crossover spacing no less than 650 feet.

ROUTE 2020 EXTENDED (ASHBURN VILLAGE BOULEVARD)

Location/Segment: Dulles North Area/Route 7 North Collector (Riverside Parkway) south to Route 7

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes required at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/ 120-foot ROW, plus land dedication for Route 7 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchange at Route 7. Route 7 interchange location will be just east of existing Ashburn Village Blvd/Route 7 at-grade intersection. Left and right turn lanes at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

GLOUCESTER PARKWAY

Location/Segment: Dulles North Area/Route 28 (at Nokes Blvd) west to Route 659

EXISTING/INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/ 120-foot ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes required at all at-grade intersections. Existing segment, between Route 641 and just east of Ashburn Village Blvd, has design speed of 45 mph and median crossover spacing no less than 650 feet. 45 mph design speed and desirable median crossover spacing 800 feet on new segments between Route 659 and Route 641, and just east of Ashburn Village Blvd and Route 28.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120 foot ROW, plus land dedication required for Route 28 interchange and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector with grade separated interchange at Route 28. Left and right turn lanes at all intersection. 45 mph design speed and desirable median crossover spacing 800 feet.

GREENWAY EAST-WEST CONNECTOR

Location/Segment: Dulles North Area/Claiborne Parkway east to Greenway Transit Connector

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90 foot ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

Appendix 1: Design Guidelines for Major Roadways

GREENWAY LOOP ROAD

Location/Segments: Dulles North Area/Route 645 Extended (Westwind Drive) east to Route 607 Extended (Panorama/Loudoun Parkway), and north to Route 789 Extended

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70- 90-foot ROW, plus land dedication required for turn lanes at major intersections

Description: U4 (through Dulles Parkway Center and Loudoun Parkway Center). Local access undivided/divided urban collector which crosses under/over the Dulles Greenway. U4R (through Dulles Berry and Glennwood East). Controlled access median divided collector. Left and right turn lanes required at major intersections. 40 mph design speed on both sections, and desirable median crossover spacing 700 feet on divided section.

GREENWAY TRANSIT CONNECTOR

Location/Segment: Dulles North Area/Route 645 Extended north over Dulles Greenway to Route 643

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed. Access Road for potential rail station.

LOUDOUN PARKWAY

Location/Segment: Dulles North Area and Dulles South Area/ Dulles Greenway west and south to Route 606 and follow Route 606 alignment to Route 50 (at Tri-County Parkway intersection)

INTERIM CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban arterial with grade separated interchange at Dulles Greenway. Left and right turn lanes required at all at-grade intersections. Prior to Loudoun Parkway construction to the south of Route 772, Route 772 and Loudoun Parkway (east/west segment between Route 772 and Greenway) will be mainline. Once Loudoun Parkway is constructed to the south of Route 772, Loudoun Parkway will become the mainline and Route 772 will "T" into

Appendix 1: Design Guidelines for Major Roadways

Loudoun Parkway. 50 mph design speed and desirable median crossover spacing 900 feet.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication for Route 50 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban arterial upgraded to six lanes with grade separated interchanges at Route 7, Route 50 and Dulles Greenway. Left and right turn lanes at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

RIVERSIDE PARKWAY (UNIVERSITY CENTER DEVELOPMENT)

Location/Segment: Dulles North Area/Route 7 South Collector (Russell Branch Pkwy) north and west to Panorama/Loudoun Pkwy/Route 7 North Collector Road intersection.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4. Local access undivided urban collector with existing at grade intersection at Route 7 and ultimately bridge over Route 7. Left and right turn lanes required at major intersections. 40 mph design speed.

RYAN BYPASS (BROADLANDS BOULEVARD)

Location/Segment: Dulles North Area/Route 625 northwest to Route 659

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access divided urban collector will bypass Village of Ryan, rejoin existing Route 643 alignment and then shift west and pass under/over the Dulles Greenway. Left and right turn lanes required at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

DULLES SOUTH AREA

ROUTE 50 NORTH COLLECTOR ROAD

Location/Segment: Dulles South Area/Route 609 (Dulles South Boulevard) west to Route 860, approximately ½ mile north of Route 50

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for turn lanes at intersections

Description: U6R. Controlled access median divided urban with collector interim condition upgraded to six lanes. Left and right turn lanes at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 50 SOUTH COLLECTOR ROAD (TALL CEDARS PARKWAY)

Location/Segment: Dulles South Area/Route 609 (Dulles South Boulevard) west to Route 860, approximately ½ mile south of Route 50

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for turn lanes at intersections

Description: U6R. Controlled access median divided urban with collector interim condition upgraded to six lanes. Left and right turn lanes at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 606 EXTENDED/ROUTE 621 (TRI-COUNTY PARKWAY)

Location/Segment: Dulles South Area/Route 50 south to Fairfax County Line

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban collector that closely follows existing Route 621 alignment. Left and right turn lanes required at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for Route 50 interchange and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector with grade separated interchange at the Route 50. Route 50 interchange location will at existing Route 606/Route 50 at-grade intersection. Left and right turn lanes at all at-grade intersections. Alignment will connect to the planned Route 28 Bypass in Fairfax County. 45 mph design speed and desirable median crossover spacing 800 feet.

ROUTE 609 (PLEASANT VALLEY ROAD)

Location/Segment: Dulles South Area/Route 50 North Collector to Route 50 South Collector

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access paved rural secondary road. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW, plus land dedication may be require for left and right turn lanes at major intersections

Description: U4. Local access undivided urban collector with left and right turn lanes required at major intersections. 40 mph design speed

Appendix 1: Design Guidelines for Major Roadways

ROUTE 620/ROUTE 705 (BRADDOCK ROAD)

EXISTING CONDITION:

Location/Segment: Dulles South Area/Fairfax County Line west to Route 15

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access unpaved rural secondary road with 9-foot travel lanes.

ULTIMATE CONDITION:

Location/Segment: Dulles South Area/Fairfax County Line west to the Lenah Connector (West Dulles Boulevard)

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

ROUTE 621 (EVERGREEN MILLS ROAD)

Location/Segment: Dulles South and Leesburg Areas/Route 606 northwest to Battlefield Parkway

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided paved rural collector. Right turn lanes at major intersections. Design speed varies.

ULTIMATE CONDITION:

Location/Segment: Dulles South Area/Route 606 northwest to just north of Broad Run bridge (at Route 621 Relocated)

Functional Classification: Local Secondary Road; down graded once Route 621 Relocated is constructed

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided paved rural collector. Right turn lanes at major intersections. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Location/Segment: Leesburg Area/Just north of Broad Run bridge (at Route 621 Relocated) northwest to Battlefield Parkway

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: R4R. Controlled access median divided rural collector with left and right turn lanes required at all intersections. Design speed and median crossover spacing to be determined by VDOT.

ROUTE 621 (EVERGREEN MILLS ROAD)

Location/Segment: Leesburg Area/Battlefield Parkway north and west to Route 15

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided paved rural collector. Right turn lanes at major intersections. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector with left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 621 RELOCATED (BRAMBLETON DEVELOPMENT)

Location/Segment: Dulles South Area/Just north of Broad Run bridge (at Route 621) east to Loudoun Parkway

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: R4R. Controlled access median divided rural collector with left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 659 (BELMONT RIDGE ROAD)

Location/Segment: Dulles South Area/North of Route 772 south through the Village of Arcola to Route 50

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access undivided paved rural collector with 9- to 10-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Location/Segment: Dulles South Area/North of Route 772 south to Route 621 Relocated (Arcola Bypass)

Functional Classification: Minor Collector (when Route 659 Relocated is constructed)

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector. 40 design speed. Segment south of Route 621 Bypass remain existing condition. Route 50 intersection terminated when Route 50 becomes limited access.

ROUTE 659 RELOCATED

Location/Segment: Dulles South Area/Route 659 just north of Route 772 south to Prince William County Line

INTERIM CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban arterial with left and right turn lanes required at all intersections. 60 mph design speed and desirable median crossover spacing 1100 feet.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for Route 50 interchange and for turn lanes at intersections.

Description: U6R. Controlled access median divided urban arterial upgraded to six lanes with grade separated interchange at Route 50. Route 50 interchange location will be west of existing Route 659/Route 50 at-grade intersection. Left and right turn lanes at all at-grade intersections. 60 mph design speed and desirable median crossover spacing 1100 feet.

This will be a major north/south corridor running between Route 7 and Route 50 and will connect to the planned Route 234 Bypass in Prince William County.

OLD ROUTE 659 (WEST SPINE ROAD)

Location/Segment: Dulles South Area/Route 50 south to Prince William County

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access paved rural collector with 8- to 10-foot travel lanes.

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW, plus land dedication for Route 50 interchange

Description: U4R. Controlled access median divided urban collector. Route 50 intersection will be just east of existing Route 659/Route 50 intersection. Continue south approximately along current Route 659 alignment to Prince William County. Left and right turn lanes required at all at-grade intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication for Route 50 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchange at Route 50. Left and right turn lanes at all at-grade intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 774 (CREIGHTON ROAD)

Location/Segment: Dulles South Area/Existing Route 659 east to Loudoun Parkway

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access paved rural secondary road. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector with left and right turn lanes at major intersections. 40 mph design speed.

ROUTE 860/ROUTE 648 RELOCATED

Location/Segment: Leesburg and Dulles South Areas/Route 643 intersection southwest to Route 15 near Prince William County Line

INTERIM CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: R4R. Controlled access median divided rural collector with bridge over the Dulles Greenway. Left and right turn lanes required at all intersections. May utilize sections of existing Route 860 alignment between Route 621 and Route 50. Just south of Dulles Greenway, Route 648 Relocated will intersect Route 643. Alignment will create a "T" intersection with Route 643 becoming the north and east leg of the intersection and Route 648 Relocated will become the south leg of the intersection. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120' ROW, plus ROW required for Route 50 interchange

Description: R4R. Controlled access median divided rural collector with grade separated interchange at Route 50 and bridge over the Dulles Greenway. Left and right turn lanes required at all at-grade intersections. May utilize sections of existing Route 860 alignment between Route 621 and Route 50. Just south of Dulles Greenway, Route

648 Relocated will intersect Route 643. Alignment will create a "T" intersection with Route 643 becoming the north and east leg of the intersection and Route 648 Relocated will become the south leg of the intersection. 40 mph design speed and desirable median crossover spacing 700 feet.

DULLES SOUTH BOULEVARD

Location/Segment: Dulles South Area/Route 50 North Collector (approximately 3,000 feet west of Route 609) south and west to Route 659 Relocated

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW and Two lanes/50-foot ROW

Description: U2/U4R. 2-Lane Segment - Local access undivided collector between South Collector Road and westside of planned school site in South Riding. 4-Lane Segment - Controlled access median divided urban collector with left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

SOUTH RIDING BOULEVARD

Location/Segment: Dulles South Area/Route 50 North Collector south to Route 50 South Collector Road (South Riding)

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW, plus land dedication for turn lanes at intersections

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW, plus land dedication required for turn lanes at intersections and Route 50 interchange

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Route 50. Left and right turn lanes at all at-grade intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

Appendix 1: Design Guidelines for Major Roadways

WEST DULLES BOULEVARD

Location/Segment: Dulles South Area/Route 621 south to Route 50 and south to Prince William County Line

INTERIM CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: R4R. Controlled access median divided rural collector with left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet. May incorporate portions of existing Route 600 and Route 624 alignments.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/120' ROW, plus land dedication required for Route 50 interchange

Description: R4R. Controlled access median divided rural collector with grade separated interchange at Route 50. Left and right turn lanes required at all at-grade intersections. 40 mph design speed and desirable median crossover spacing 700 feet. May incorporate portions of existing Route 600 and Route 624 alignments.

WEST SPINE ROAD

Location/Segment: Dulles South Area/ Route 606 and Loudoun Pkwy intersection (near existing Route 842/Route 606 intersection) south/west to Route 50

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes required at all intersections. Route 50 intersection will be just east of existing Route 659/Route 50 intersection. 50 mph design speed and desirable median crossover spacing 900 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication for Route 50 interchange and turn lanes at intersections.

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchange at Route 50. Route 50 interchange will be just east of existing Route 659/Route 50 intersection. Left and right turn lanes at all intersections. 50 mph design speed and desirable median crossover spacing 900 feet.

LEESBURG AREA

(For roadways within the Leesburg Town limits described herein, reference the Leesburg Town Plan for the functional classification, right-of-way, and design speed. For the roadways that are planned in both the Town and the County, the functional classification, right-of-way, or design speed shown refers to roadway segments outside town limits. The # lanes and the cross-section descriptions are consistent with the Leesburg Town Plan.)

ROUTE 643 (SYCOLIN ROAD)

Location/Segment: Leesburg Area/Route 659 northwest to Battlefield Pkwy

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access unpaved/paved rural collector with unpaved section between Route 659 and Route 653 and paved between Route 653 and Route 15/7 Bypass. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access median divided urban collector with grade separated interchange at the Dulles Greenway. Left and right turn lanes required at all at-grade intersections. Just south of Dulles Greenway, Route 643 will intersect with Route 648 Relocated; alignment shifts to the south of existing alignment to create "T" intersection, with Route 643 becoming the north and east approaches. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 643 (SYCOLIN ROAD)

Location/Segment: Leesburg Limits/Battlefield Pkwy north to Route 7/15 Bypass

EXISTING CONDITION:

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access unpaved/paved rural road with unpaved section between Route 659 and Route 653 and paved between Route 653 and Route 15/7 Bypass. Design speed varies.

ULTIMATE CONDITION:

Lanes: Four lanes

Description: U4. Local access undivided urban road with left and right turn lanes at major intersections and bridge over/under Route 7/15 bypass.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 653 (COCHRAN MILL ROAD)

EXISTING CONDITION:

Location/Segment: Leesburg Area/Route 7 southwest to Route 621

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access paved/unpaved rural secondary road with 6-to-10-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Segment: Crosstrail Blvd southwest to Route 643

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector. Route 7 intersection terminated with construction of Crosstrail Blvd and Route 643 intersection to shift just to the south of existing location. Left and right turn lanes required at major intersections. 40 mph design speed.

ROUTE 653 RELOCATED (CROSSTRAIL BOULEVARD)

Location/Segment: Leesburg Area/Route 7 southwest to the Dulles Greenway and Route 704 Extended

INTERIM CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW,

Description: U4R. Controlled access median divided urban collector with grade separated interchange at Dulles Greenway. Left and right turn lanes required at all at-grade intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for turn lanes at intersections and Route 7 interchange

Description: U6R. Controlled access median divided urban collector upgraded to six lanes with grade separated interchanges at Route 7 and the Dulles Greenway. Left and right turn lanes at all at-grade intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 704 EXTENDED (CROSSTRAIL BOULEVARD)

Location/Segment: Leesburg Area/Dulles Greenway & Crosstrail Boulevard interchange west to Route 15

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/120' ROW

Description: U4R. Controlled access median divided urban collector will share grade separated interchange at the Dulles Greenway with Crosstrail Blvd. Left and right turn lanes required at all at-grade intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 773 (CALIFORNIA ROAD/RIVER CREEK PARKWAY)

Location/Segment: Leesburg Area/Edwards Ferry Road south to Fort Evans Road intersection

EXISTING CONDITION:

Functional Classification: Local Secondary Road

Lanes/Right of Way: Two lanes/ROW varies

Description: R2. Local access unpaved rural secondary road with 7-foot travel lanes. Design speed varies.

INTERIM/ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two-Four lanes/50- to 70' ROW

Description: R2/U4. Local access undivided rural/urban collector. Interim R2 section and Ultimate U4 section approx. between Edwards Ferry Rd and Cattail Branch bridge. Left and right turn lanes required at major intersections. 45 mph design speed.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 773 (EDWARDS FERRY ROAD)

Location/Segment: Leesburg Limits/Route 15 Bypass east to Battlefield Parkway

EXISTING CONDITION:

Lanes: Four lanes and Two lanes

Description: R2/U4R. 4-Lane Segment - Median divided urban road with left and right turn lanes at all intersections. 2-Lane segment (just west of planned Battlefield Parkway) - Undivided paved/unpaved road.

ULTIMATE CONDITION:

Lanes: Four lanes

Description: U4R. Median divided urban road with grade separated interchange at Route 15 Bypass.

ROUTE 773 (FORT EVANS ROAD)

Location/Segment: Leesburg Limits/River Creek Parkway west to Battlefield Parkway

EXISTING CONDITION:

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved/unpaved road.

ULTIMATE CONDITION:

Lanes: Four lanes

Description: U4R. Median divided urban road with left and right turn lanes at major intersections.

AIRPORT AREA CONNECTOR

Location/Segment: Leesburg Area/Battlefield Parkway south to Crosstrail Boulevard, just east of the Dulles Greenway

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided urban collector. Left and right turn lanes required at major intersections. 40 mph design speed.

BATTLEFIELD PARKWAY

Location/Segment: Leesburg Limits/Route 15 Bypass east and south to Fort Evans Road and south to Route 7 and east to Route 15 north of Virts Corner

INTERIM CONDITION:

Lanes/Right of Way: Four lanes/Land dedication required for turn lanes at intersections

Description: U4R. Median divided urban road with left and right turn lanes at all intersections.

ULTIMATE CONDITION:

Lanes/Right of Way: Four and Six lanes/Land dedication required for turn lanes at intersections and Route 15 bypass and Route 7 interchanges

Description: U4R (between Route 15 Bypass and Edwards Ferry Road)/U6R. Controlled access median divided urban road with grade separated interchanges at Route 15 Bypass, Route 7 and the Dulles Greenway. Left and right turn lanes at all at-grade intersections.

KINCAID BOULEVARD EXTENDED

Location/Segment: Leesburg Area/Battlefield Parkway south to Crosstrail Boulevard

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

MARY HOPE PARKWAY

Location/Segment: Leesburg Limits/Battlefield Parkway north and east to Route 643

ULTIMATE CONDITION:

Lanes: Four lanes

Description: U4. Local access undivided urban road. Left and right turn lanes required at major intersections.

Appendix 1: Design Guidelines for Major Roadways

MILLER DRIVE

Location/Segment: Leesburg Area/Battlefield Parkway south and east to Crosstrail Boulevard

EXISTING CONDITION:

Segment: Approximately 1200 feet south of Tolbert Lane south and east to Route 643

Lanes: Four lanes

Description: U4. Local access undivided urban road. Left and right turn lanes required at major intersections.

ULTIMATE CONDITION:

Segment: Battlefield Parkway south to terminous of existing segment

Lanes: Four lanes

Description: U4. Local access undivided urban road. Left and right turn lanes required at major intersections.

ULTIMATE CONDITION:

Segment: Route 643 at existing Miller Drive intersection southeast to Crosstrail Boulevard

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access median divided urban collector. Left and right turn lanes required at all intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

RIVER CREEK PARKWAY

Location/Segment: Leesburg Limits/Fort Evans Road south to Route 7/Crosstrail Boulevard intersection

INTERIM CONDITION:

Lanes/Right of Way: Four lanes/120' ROW,

Description: U4R. Median divided urban road with left and right turn lanes required at all intersections. 45 mph design speed.

ULTIMATE CONDITION:

Lanes/Right of Way: Six lanes/120' ROW, plus land dedication required for turn lanes at intersections and Route 7 interchange

Description: U6R. Median divided urban road upgraded to six lanes with grade separated interchange at Route 7. Left and right turn lanes at all at-grade intersections. 45 mph design speed.

RUSSELL BRANCH PARKWAY

Location/Segment: Leesburg Limits/ Crosstrail Boulevard west to Trail View Boulevard

ULTIMATE CONDITION:

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Undivided urban road with Battlefield Parkway over/under-pass.

TRAIL VIEW BOULEVARD

Location/Segment: Leesburg Area/Route 659 and Gloucester Parkway intersection west over Goose Creek to Cardinal Park Drive

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access median divided urban collector with left and right turn lanes required at all intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

WESTERN LOUDOUN AREA

ROUTE 7 BUSINESS (E. COLONIAL STREET/W. MAIN STREET)

Location/Segment: Western Loudoun Area/Route 9 west to Route 7 Bypass through Hamilton, Purcellville and Round Hill

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2/U2. Local access undivided collector with grade separated interchange at Route 7. Individual site access occurs along section with curb sections with in towns. Design speed varies.

ROUTE 9 (CHARLES TOWN PIKE)

Location/Segment: Western Loudoun Area/West Virginia State Line east to Route 7 at Clarkes Gap

EXISTING CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural arterial with 10 - to 11-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes/ROW Varies, plus land dedication may be required for turn lanes and minor widening

Description: R2. Local access undivided paved rural arterial with 12-foot travel lanes and grade separated interchange at Route 7. Left and right turn lanes at major intersections. Design speed to be determined by VDOT.

ROUTE 287 (BERLIN TURNPIKE)

Location/Segment: Western Loudoun Area/Route 7 Business north to Maryland State Line and Route 17

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10- to 12-foot travel lanes and grade separated interchange at Route 7. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/Existing ROW, additional land dedication may be required for turn lanes and bypass alignment (70' ROW); and Four lanes/90' ROW

Description: R2. Local access undivided paved rural collector with 12-foot travel lanes and grade separated interchange at Route 7. Bypass around Lovettsville on west side with 12' travel lanes. Left and Right turn lanes required at major intersections. 60 design speed. U4R. Between Route 7 Business and Route 7 Bypass will be controlled access median divided urban collector with left and right turn lanes at major intersections. 40 mph design speed and desirable median crossover spacing 700 feet.

ROUTE 287 BUSINESS (LOVETTSVILLE)

Location/Segment: Western Loudoun Area/Route 287 north through Lovettsville to Route 287 north of town line (segment between Bypass connections)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector; down graded to Minor Collector once Bypass is constructed

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10.5' travel lanes. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 340 (JEFFERSON PIKE)

Location/Segment: Western Loudoun Area/Maryland State Line west to West Virginia State Line

EXISTING/ULTIMATE CONDITION:

Functional Classification: Minor Arterial

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural arterial with 12' travel lanes. Design speed varies.

ROUTE 611 (ST. LOUIS ROAD)

Location/Segment: Western Loudoun Area/Route 50 north to Route 734

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8- to 12' travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

ROUTE 623 (WILLISVILLE ROAD)

Location/Segment: Western Loudoun Area/Route 743 south to Route 50

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 9-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

ROUTE 662 (CLARKES GAP ROAD)

Location/Segment: Western Loudoun Area/Route 9 north to Route 665

EXISTING CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector. Improvements constructed as per Scenic Design Guidelines (Chapter 4).

ROUTE 663 (TAYLORSTOWN ROAD)

Location/Segment: Western Loudoun Area/Route 665 west to Route 668 in Taylorstown

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 9-foot travel lanes within village. Design speed varies.

ROUTE 665 (HIGH STREET)

Location/Segment: Western Loudoun Area/Route 662 (Factory Street) north and east through Waterford to Route 666 (Browns Lane)

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 6- to 7-foot travel lanes. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 665 (LOYALTY ROAD)

Location/Segment: Western Loudoun Area/Route 666 north to Route 663 in Taylorstown

EXISTING CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 7-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector. Improvements constructed as per Scenic Design Guidelines (Chapter 4).

ROUTE 668 (TAYLORSTOWN ROAD)

Location/Segment: Western Loudoun Area/Route 663 north to Route 672

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 9-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

ROUTE 671 (HARPERS FERRY ROAD)

Location/Segment: Western Loudoun Area/Route 9 north to Route 340

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. Design speed varies.

ROUTE 672 (LOVETTSVILLE ROAD)

Location/Segment: Western Loudoun Area/Route 15 west to Lovettsville Town Line

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. Design speed varies.

ROUTE 673/ROUTE 690 (IRISH CORNER ROAD/MOUNTAIN ROAD)

Location/Segment: Western Loudoun Area/Route 287 Business west and south to Route 9 just east of Hillsboro

EXISTING CONDITION:

Functional Classification: Minor Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 7- to 10-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector. Improvements constructed as per the Scenic Design Guidelines (Chapter 4).

Appendix 1: Design Guidelines for Major Roadways

ROUTE 690 (HILLSBORO ROAD)

Location/Segment: Western Loudoun Area/Route 7 Business in Purcellville north to Route 9

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8- to 9-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/50-foot ROW, plus land dedicated required for Route 7 interchange

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders and grade separated interchange at Route 7.

ROUTE 690 (SILCOTT SPRINGS ROAD)

Location/Segment: Western Loudoun Area/Route 734 north to Route 7 Business in Purcellville

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. Design speed varies.

ROUTE 704 (HAMILTON STATION ROAD)

Location/Segment: Western Loudoun Area/Route 7 Business at Hamilton north to Route 662 south of Waterford

EXISTING CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8-foot travel lanes and 12-foot lanes near grade separated interchange at Route 7. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders and grade separated interchange at Route 7.

ROUTE 704 (HARMONY CHURCH ROAD)

Location/Segment: Western Loudoun Area/Route 15 west and north to Route 7 Business at Hamilton

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. Design speed varies.

ROUTE 719 (AIRMONT ROAD)

Location/Segment: Western Loudoun Area/Route 734 north to northern Round Hill Town Line

EXISTING/ULTIMATE CONDITION:

Functional Classification: Major Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. Lane widths varies from 8 feet to 9 feet within town limits. Design speed varies.

Appendix 1: Design Guidelines for Major Roadways

ROUTE 719 (GREENGARDEN ROAD/AIRMONT ROAD)

Location/Segment: Western Loudoun Area/Route 743 north to Route 734

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

ROUTE 719 (WOODGROVE ROAD/STONY POINT ROAD)

Location/Segment: Western Loudoun Area/Northern Round Hill Town Line north and east to Route 9 at Hillsboro

EXISTING CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8- to 10-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector. Improvements constructed as per Scenic Design Guidelines (Chapter 4).

ROUTE 733 (LIME KILN ROAD)

Location/Segment: Western Loudoun Area/Route 15 west to Route 734

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided unpaved/paved rural collector with 5- to 8-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

ROUTE 734 (SNICKERSVILLE TURNPIKE)

Location/Segment: Western Loudoun Area/Route 50 northwest to Route 7

EXISTING CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 8- to 9-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Major Collector/Scenic Byway

Lanes/Right of Way: Two lanes/ROW same as Existing Condition with additional land required to accommodate design upgrades

Description: R2. Local access undivided rural collector. Improvements constructed as per the Scenic Design Guidelines (Chapter 4)

Appendix 1: Design Guidelines for Major Roadways

ROUTE 743 (MILLVILLE ROAD)

Location/Segment: Western Loudoun Area/Route 719 east to Route 623

EXISTING CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ROW Varies

Description: R2. Local access undivided paved rural collector with 9-foot travel lanes. Design speed varies.

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/ 50-foot ROW

Description: R2. Local access undivided paved rural collector with 10- to 11-foot travel lanes and 2- to 4-foot shoulders.

HAMILTON SOUTHERN COLLECTOR

Location/Segment: Western Loudoun Area/Route 7 Business at eastern Route 704 intersection south and west around the south side of the town to Purcellville Bypass

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided paved rural collector with 12' travel lanes. 40 mph design speed.

PURCELLVILLE ROUTE 7 NORTH COLLECTOR

Location/Segment: Western Loudoun Area/Route 287 west to Route 690

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/70' ROW

Description: U4. Local access undivided paved rural collector with 12' travel lanes. 40 mph design speed.

PURCELLVILLE SOUTHERN COLLECTOR

Location/Segment: Western Loudoun Area/Route 287/Route 7 Business intersection south and west to Route 690

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/ 70' ROW

Description: U4. Local access undivided urban collector with 12' travel lanes. 40 mph design speed.

ROUND HILL NORTHERN COLLECTOR (EVENING STAR DRIVE)

Location/Segment: Western Loudoun Area/Route 7 Business, west of Route 7 interchange, north and west around the north side of the town and south to just east of existing Route 7 and Route 7 Business intersection

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Four lanes/90' ROW

Description: U4R. Controlled access divided paved urban collector with left and right turn lanes required at major intersections. 45 mph design speed and desirable median crossover spacing 800 feet.

WATERFORD WESTERN BYPASS

Location/Segment: Western Loudoun Area/Route 681, just north of Route 698, south around the western side of Village to Route 704

ULTIMATE CONDITION:

Functional Classification: Minor Collector

Lanes/Right of Way: Two lanes/50-foot ROW

Description: R2. Local access undivided paved rural collector with 10-foot travel lanes. 40 mph design speed.

**COUNTYWIDE TRANSPORTATION PLAN
AMENDMENT**

Case Number	Project Name	Date Adopted
CPAM 1997-0005	Route 50 Corridor Study - Eastern Segment	December 17, 1997



Loudoun County, Virginia

Office of the County Administrator

1 Harrison Street, S.E., 5th Floor, P.O. Box 7000, Leesburg, VA 20177-7000
703/777-0200 • Metro: 703/478-8439 • Fax: 703/777-0325

At a meeting of the Board of Supervisors of Loudoun County, Virginia, held in the County Administration Building, Board of Supervisors' Meeting Room, 1 Harrison St., S.E., Leesburg, Virginia, on Wednesday, December 17, 1997 at 9:00 a.m.

PRESENT: Dale Polen Myers, Chairman (Absent for the Vote)
Joan G. Rokus, Vice Chairman
Lawrence S. Beerman II
James G. Burton
Helen A. Marcum
David G. McWatters
Eleanore C. Towe
Steven D. Whitener
Scott K. York

IN RE: TRANSPORTATION/PUBLIC SAFETY COMMITTEE
REPORT/COMPREHENSIVE PLAN AMENDMENT 1997-0005/ROUTE 50
CORRIDOR STUDY/EASTERN SEGMENT (MERCER DISTRICT)

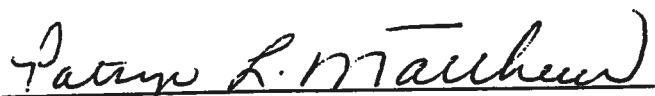
Mrs. Marcum moved that the Board of Supervisors approve the recommendation of the Transportation Public Safety Committee to accept, with approval, Comprehensive Plan Amendment 1997-0005, Planning Commission Report of October 29, 1997, for the Route 50 Corridor Study: Eastern Segment, with text modifications.

Mrs. Marcum further moved that two separate Comprehensive Plan Amendments be processed for the Arcola Community, and CLI zoned parcels along the Route 50 Corridor, and/or Zoning Ordinance Amendments for the CLI issue.

Seconded by Mr. McWatters.

Voting on the Item: Supervisors Beerman, Burton, Marcum, McWatters, Towe, York and Whitener - Yes; Rokus - No; Myers - Absent for the vote.

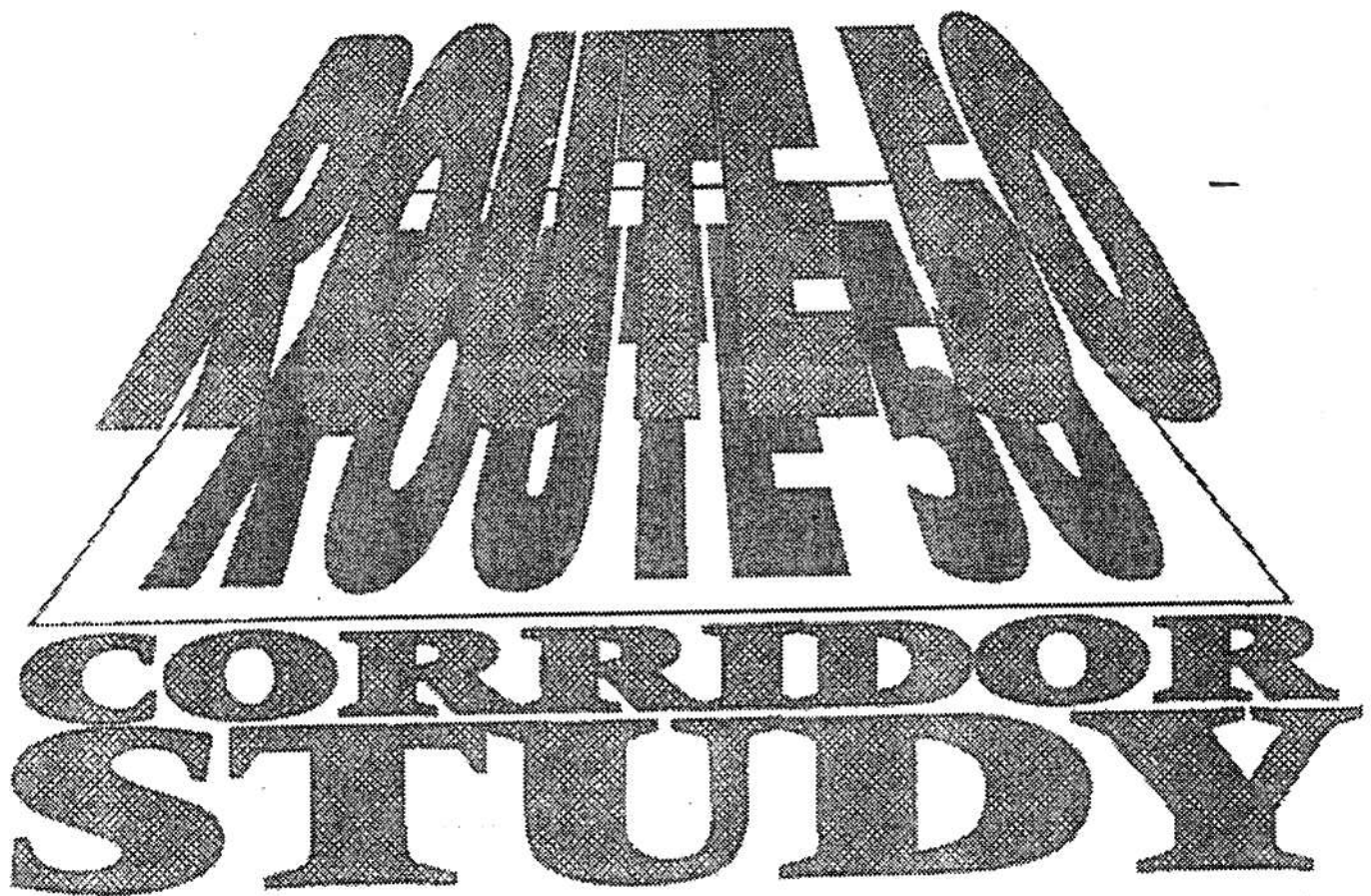
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DEPUTY CLERK FOR THE LOUDOUN
COUNTY BOARD OF SUPERVISORS

PLM:REDEC17C.97

ROUTE 50 Corridor Study

Eastern Segment:
Route 659 to Fairfax County Line



December 17, 1997

**ROUTE 50 CORRIDOR STUDY:
EASTERN SEGMENT
DECEMBER 17, 1997 REPORT**

<u>Section</u>	<u>Page</u>
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Design Guidelines for Major Roadways	8
Corridor Maps	9

I. BACKGROUND

On March 19, 1997, the Board of Supervisors directed the Planning Commission and staff to restart the Eastern Segment of the Route 50 Corridor Study between the Fairfax County line and Route 659. The basic goal of the Corridor Study is to present a road network which will promote short-term development opportunities while providing sufficient system capacity in the long-term to serve anticipated levels of development in the future.

The initial Route 50 Corridor Study began on October 26, 1994. The three segments of the Route 50 Corridor were defined as follows:

East Segment: Fairfax County Line to Route 659

Middle Segment: Route 659 to Route 15 (Gilberts Corner)

West Segment: Route 15 (Gilberts Corner) to the west end of Middleburg Bypass

Public meetings for the Corridor Study were held on December 1, 1994 and January 12, 1995. A draft Background Report was distributed at the December meeting and an updated Background Report at the January meeting. An initial round of public work sessions were held in each of the three segments. Following these work sessions and the nature of the identified issues, the degree of perceived consensus as well as the time frame for impending development and road improvement projects, it was determined to focus first on resolution of issues in the Eastern Segment of the Corridor. This segment runs between the Fairfax County Line to the vicinity of the existing Route 659 and is shown in the Segment Map on the next page. A total of three work sessions were held on the Eastern Segment and a Community Meeting was held on April 20, 1995, at which time staff discussed its preliminary recommendations for roads and interchanges in the Eastern Segment. The Route 50 Corridor Study Subcommittee of the Planning Commission endorsed a number of these recommendations of the staff, but took no action on others.

In early May 1995, the Planning Commission suspended work on the Route 50 Corridor Study as it completed prioritization of major work elements it needed to complete by the end of its term.

In the same time frame, the Board of Supervisors was completing its work in reviewing the draft Countywide Transportation Plan (CTP). The CTP process had a full public participation process including community meetings and public hearings before the Planning Commission and Board of Supervisors. These Eastern Segment recommendations, which were endorsed by the PC Subcommittee, were subsequently included in the Countywide Transportation Plan and approved by the Board of Supervisors on July 5, 1995. This included endorsed road alignments and typical sections for some key roads. The Route 50 Corridor Study material, included in the CTP, received no opposition in the CTP

public process. The remainder of the approved CTP road network for the Eastern Segment of the Route 50 Corridor came from the transportation element of the Dulles South Area Management Plan (DSAMP). This was done with the understanding that future modifications to this road network could be accomplished when the Route 50 Corridor Study was restarted; which is now.

At the February 11, 1997 meeting of the Board of Supervisors Transportation/Public Safety Committee, Mr. Lou Canonico and Mr. Robert Buchanan made a presentation for the alignment and type of Route 50 North Collector Road east of Route 606. Currently this road is shown on the Countywide Transportation Plan (CTP) Map, and is included in the Dulles South Area Management Plan (DSAMP). It is specified as a 4-6 lanes, median divided road. The proposal relocated the road closer to Route 50 to serve the smaller parcels, generally zoned CLI, fronting on the north side of Route 50, and narrowed the typical section to four undivided lanes.

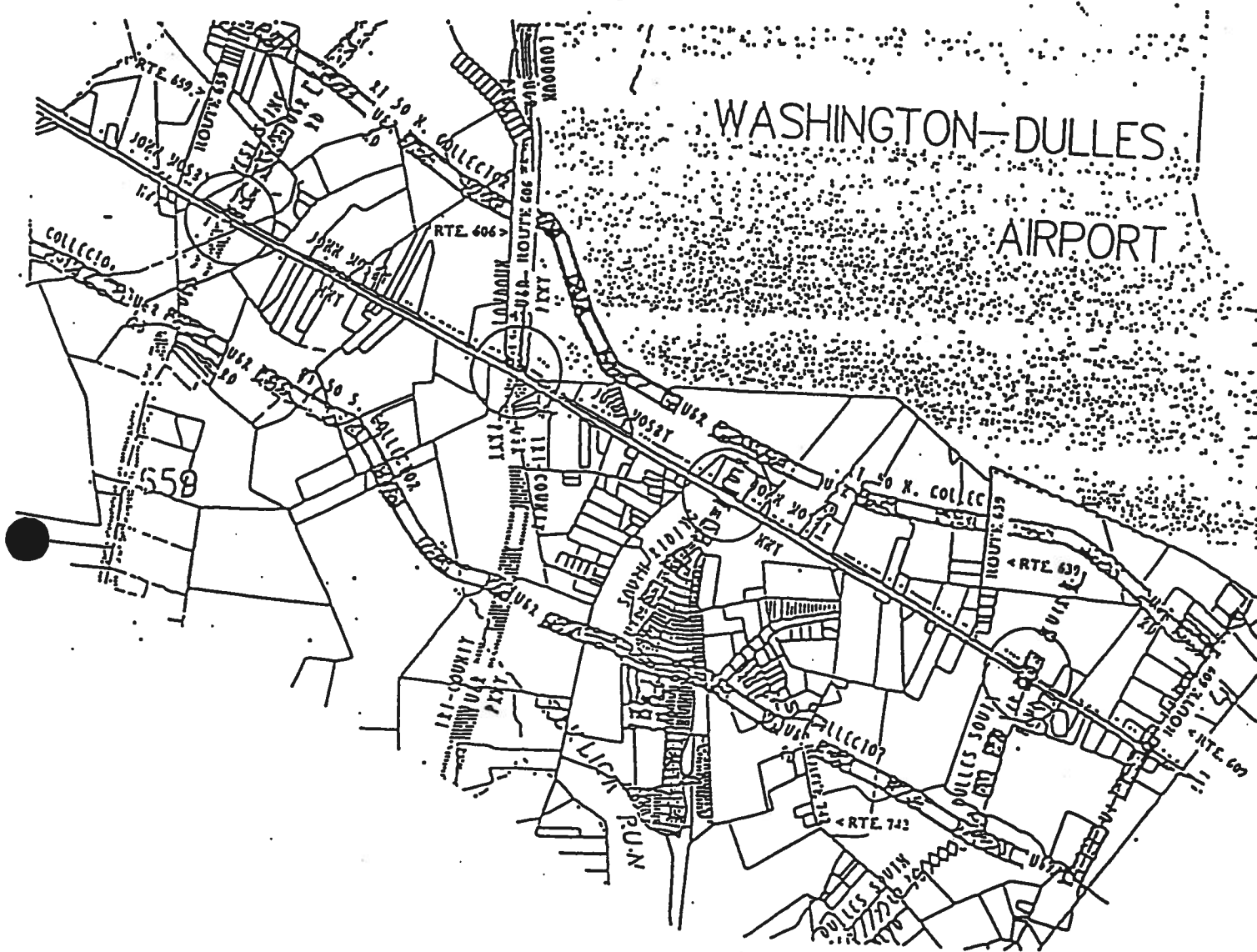
Following the presentation, the Committee directed the staff to bring back the Route 50 Corridor Study with the focus on the Eastern Segment for the review by the Committee. The issues to be considered would include all of those which were unresolved as of May 1995 plus any new issues which might be identified.

During the period in which it has participated in the Corridor Study process, the Planning Commission has held three public input meetings, a public hearing and five work sessions. It has received numerous comments, proposals and suggestions from the landowners and residents of the Route 50 Corridor. The Commission has carefully considered these inputs as it has crafted the proposed Corridor Transportation system shown in this report. This system should provide responsive, phased transportation service for many years as development, planned and zoned, in the Corridor occurs.

However, the planning efforts for the corridor must continue into the future. The complex problem of providing adequate access to CLI zoned parcels on both sides of Route 50, as well as incentives for development, needs continuing coordinated planning between the County and the Economic Development Commission to produce a balanced pro-active program. Planning coordination must also continue between Loudoun County, Fairfax County and the Metropolitan Washington Airports Authority to receive the full benefits of a limited access Route 50 east to Route 28 and perhaps beyond.

The CPAM 1997-0005 Vicinity Map, on the next page, shows the limits of the Route 50 Corridor Study Eastern Segment along with the road segments and alignments specified in the current County Transportation Plan. This Corridor Study recommends changes to this road network which are detailed in this report.

CORRIDOR VICINITY MAP



Above map shows general area of the Corridor Study and the current (December 1, 1997) Countywide Transportation Plan Road Network in the Study Area.

ROUTE 50 CORRIDOR STUDY: EASTERN SEGMENT

GOALS AND OBJECTIVES

December 17, 1997

GOAL: To provide a transportation network which will promote short-term development opportunities while providing sufficient system capacity in the long-term to serve anticipated levels of development, with Route 50 ultimately becoming a limited access road.

OBJECTIVES:

- To provide a transportation system which can accommodate interim term development and planned longer term development in the Route 50 Corridor.
- To provide sufficient flexibility and options for connections with the transportation network bordering the Corridor including Fairfax County.
- To enhance the process of planning and implementing public transportation improvements in the Route 50 Corridor.
- To protect residential communities and streets from inappropriate commercial, industrial and cut-through traffic.
- To support the policies of the Dulles South Area Management Plan to make Route 50 a Gateway Corridor including landscaping, buffering and associated activities to promote a parkway theme.

ROUTE 50 CORRIDOR PLAN SUMMARY

This Corridor Study provides a blueprint for the expansion of the transportation system in the Eastern Segment of the Route 50 Corridor over a considerable length of time. The centerpiece of the system is Route 50 itself. Route 50 in Loudoun County, east of existing Route 659, is primarily a median divided four-lane, rural, minor arterial. Currently, it has only one traffic signal in operation at Route 606 and there are numerous entrances to parcels fronting on the road. In addition, many of these entrances do not meet current VDOT standards and are not accessed by right turn lanes. The location of existing median crossovers are not necessarily connected with expected locations for growth. A modest doubling of Route 50's current daily traffic volumes in its Eastern Loudoun County Segment (currently 15,000 - 20,000 average daily traffic) will result in poor and increasingly unsafe road operations.

However, under this Corridor Study's plan, Route 50 will be converted in an interim timeframe to a six-lane median divided controlled access road. Traffic capacity at level of service (LOS) D (moderate congestion) will increase toward 60,000 average daily traffic. Finally, in the longer-term (20 years and more) interchanges will be added and Route 50 will become a limited access road. These interchanges will be constructed at the West Spine Road, Route 606 (the future Tri-County Parkway), South Riding Boulevard and just east of Route 639. This Corridor Study also provides the flexibility to construct an interchange at Route 609 if Fairfax County decides to implement limited access on its section of Route 50 east to Route 28 and/or expand to eight lanes.

Parallel Collector Roads will be added north and south of Route 50 as development occurs. The character of the North Collector Road and the South Collector Road will be considerably different because the nature of land uses in the areas served by these two roads are not the same and they produce different levels and types of traffic. The eastern section of the North Collector Road will run from Route 609 to the Dulles Airport Boundary in the vicinity of current Route 621 where it will terminate in a cul-de-sac. The road will have a four-lane undivided (called a U4) section. It will serve the mostly industrial traffic of that subarea.

The western section of the North Collector Road will begin at Route 606 and run westward to Route 659 and beyond. It will be a wider four to six-lane median divided road because of the commercial/retail development planned for the area.

The Route 50 South Collector Road will begin at the future Route 639 interchange vicinity and will curve to the southwest and then parallel Route 50. It will be a four to six-lane median divided road. It will serve the South Riding Town Center and continue west to the Tri-County Parkway and Route 659. The alignment and typical section of the South Collector Road west of Route 659 will be determined by a future corridor study and beyond. The next phase of the Route 50 Corridor Study will consider the alignments and size of these collector roads as well as Route 50's future cross section west of Route 659 out to Route 15.

The following are other highlights of the Route 50 Corridor Study Transportation Network:

1. **Access to Dulles Airport from U.S. Route 50:** Route 639 will be slightly realigned and expanded to a four-lane undivided road. It will provide a major entrance to commercial, industrial and cargo areas of Dulles Airport, but not the main passenger terminal. A secondary entrance will be provided at Route 609, which will also be expanded to a four-lane undivided road. The Airport will also be able to conveniently access Route 606 at its intersection with the North Collector Road.
2. **Retail Plan:** The realignment of the North Collector Road and the West Spine Road will facilitate retail development in the area north of Route 50 and east of Arcola.
3. **Future connections to Fairfax County and the Smithsonian Air and Space Museum Facility:** The Corridor Study provides the flexibility to reserve a right-of-way to extend the North Collector Road to connect with possible future roads in Fairfax County. This connection will be important if the two Counties work together to extend limited access on Route 50 east to Route 28. The Corridor Study allows the addition of a diamond interchange at Route 609/Route 50, if necessary, to support this desirable regional effort. The Corridor Study also allows for a second connecting road closer to Route 50. The current access plan for the Smithsonian Facility shows all public access will be from Route 28 via an interchange in the vicinity of Barnsfield Road. Should this access need to be expanded in the future, the planned ability for Loudoun and Fairfax Counties to upgrade Route 50 and to connect other local roads between the two jurisdictions will be useful to the Smithsonian facility.
4. **Protection of Residential Communities and Streets from Commercial, Industrial and Cut-Through Traffic:** This Corridor Study has responded to the requests of the South Riding Community and severed a direct connection between Edgewater Street and the planned Route 639/Route 50 interchange via the Dulles South Boulevard. Route 742 has been planned as a two-lane residentially oriented road which can be improved through the Six-Year Secondary Road Improvement Program with the full participation of the local citizens. It is planned that commercial, industrial and regional through traffic be served by the Tri-County Parkway and West Spine when these roads are constructed.
5. **Planning and Implementing Public Transportation Improvements in the Route 50 Corridor:** In response to requests from the South Riding Community, the Corridor Study recommends that the extension of community bus service to the Route 50 Corridor be studied as part of the bus operations plan being developed for the Western Regional Park-and-Ride Lot. Commuter bus service should be extended to Route 50 as soon as