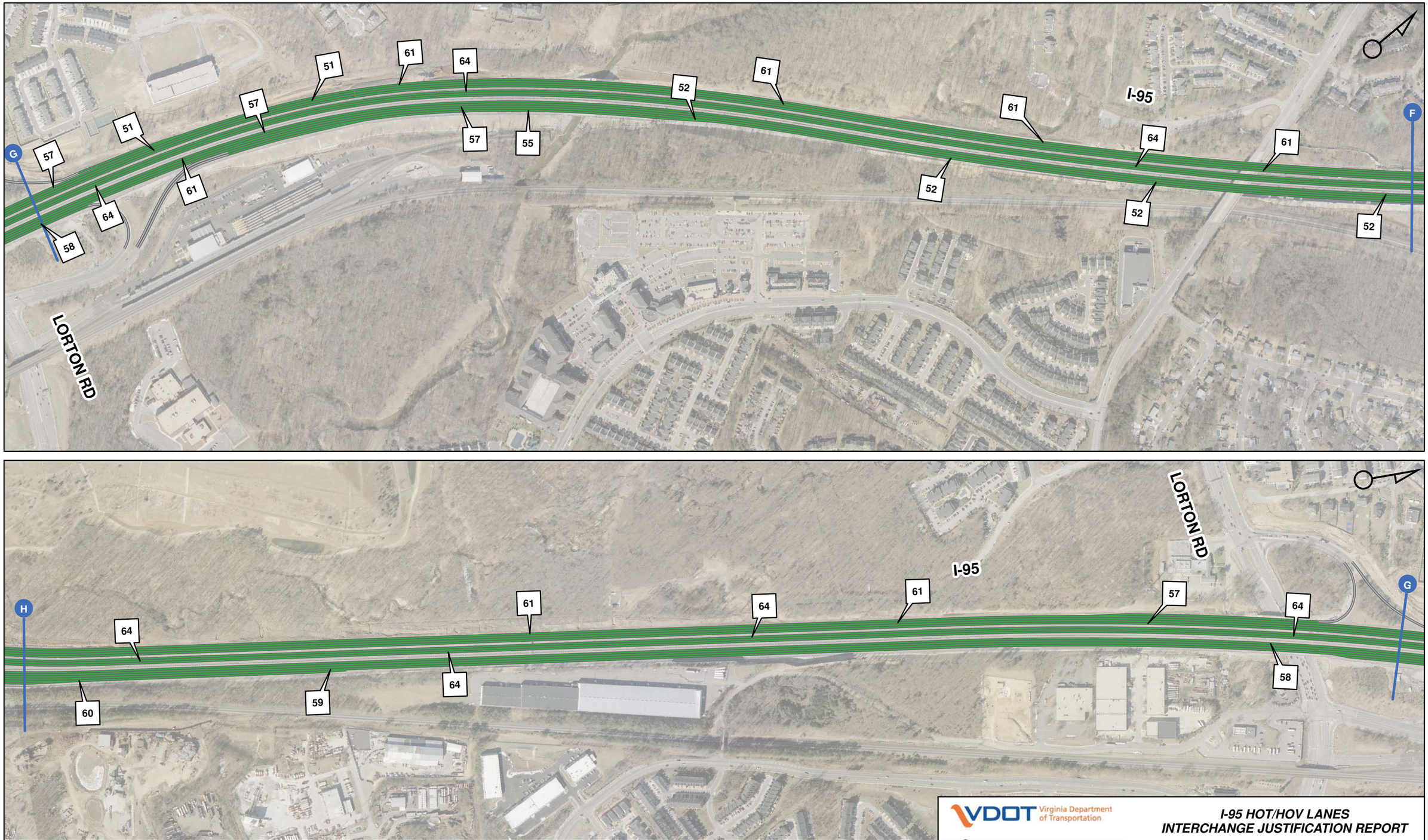


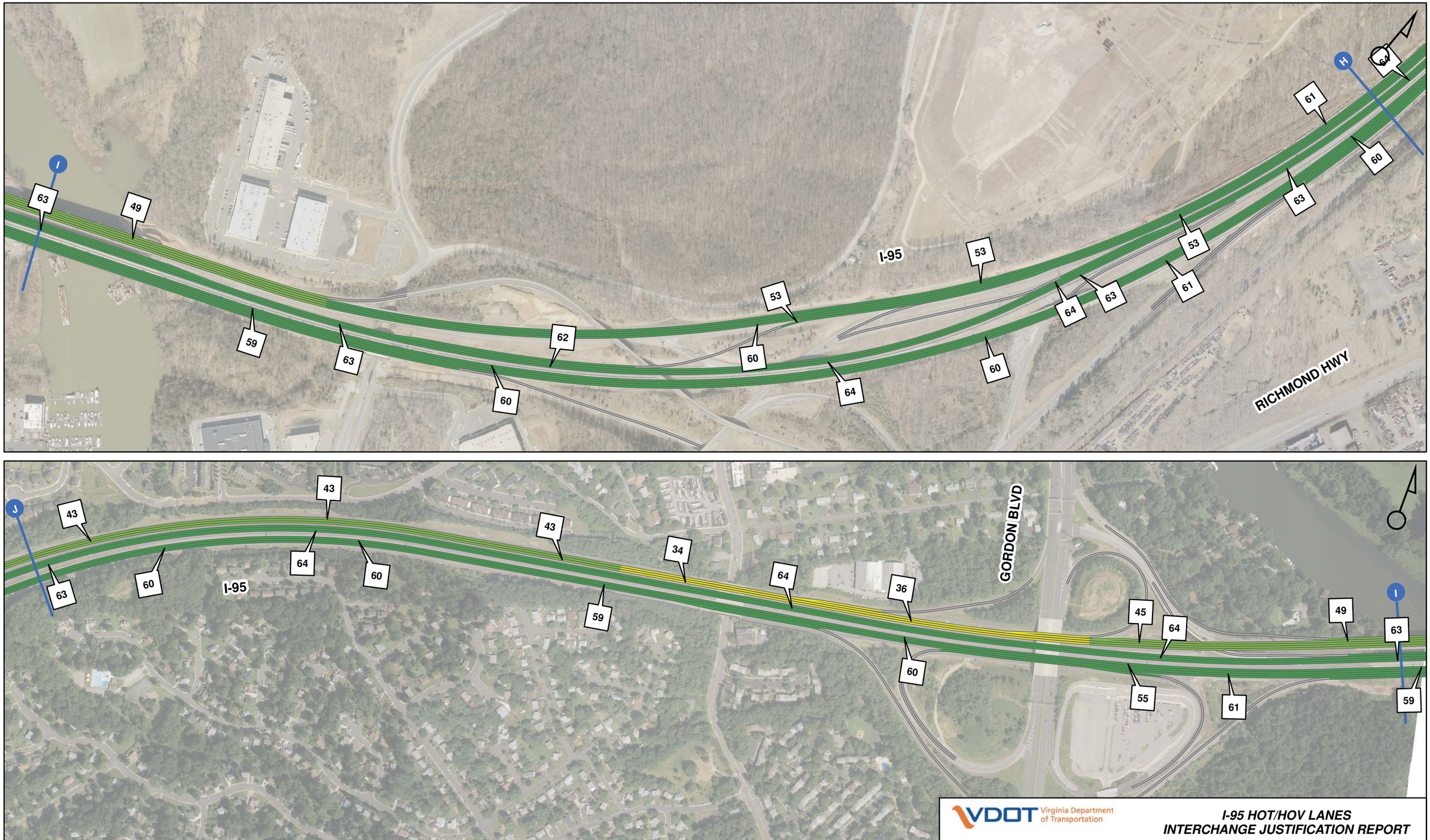
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
FAIRFAX COUNTY PKWY TO LORTON RD

Figure: 9-19 D | Scale: 1" = 500' | Date: November 21, 2011 | *FINAL*



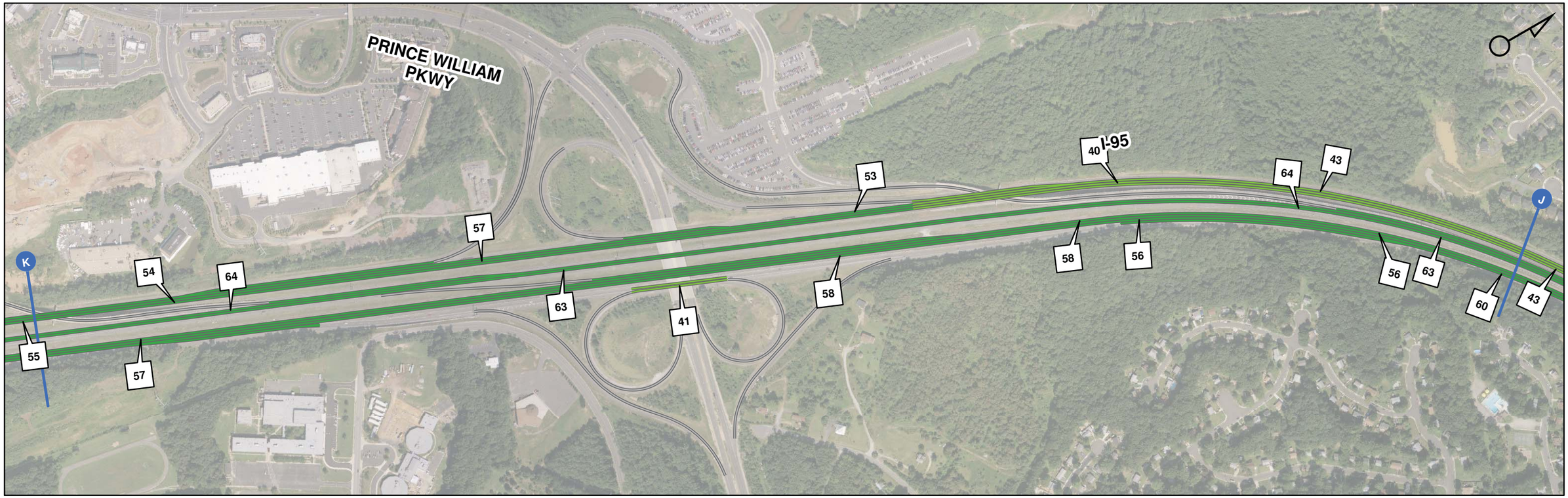
VDOT Virginia Department of Transportation

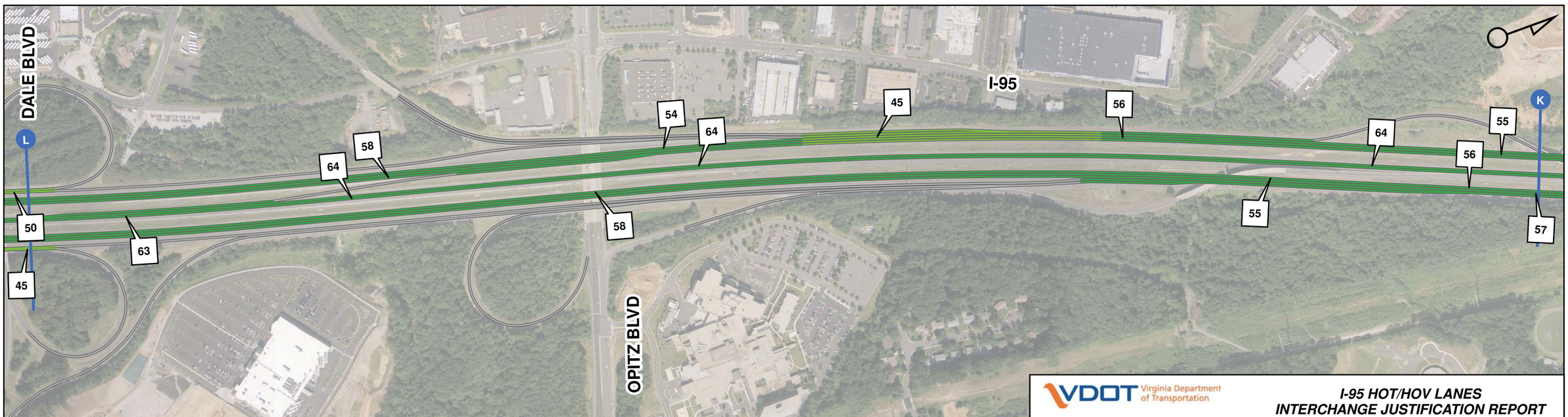
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
US 1 TO GORDON BLVD

Figure: 9-19 E | Scale: 1" = 500' | Date: November 21, 2011 | FINAL





0 250 500 1,000 Feet

Average Speed - miles per hour (MPH)

123 — 10 - 20 MPH — 20 - 30 MPH — 30 - 40 MPH — 40 - 50 MPH — > 50 MPH

VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
PRINCE WILLIAM PKWY TO DALE BLVD

Figure: 9-19 F **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***

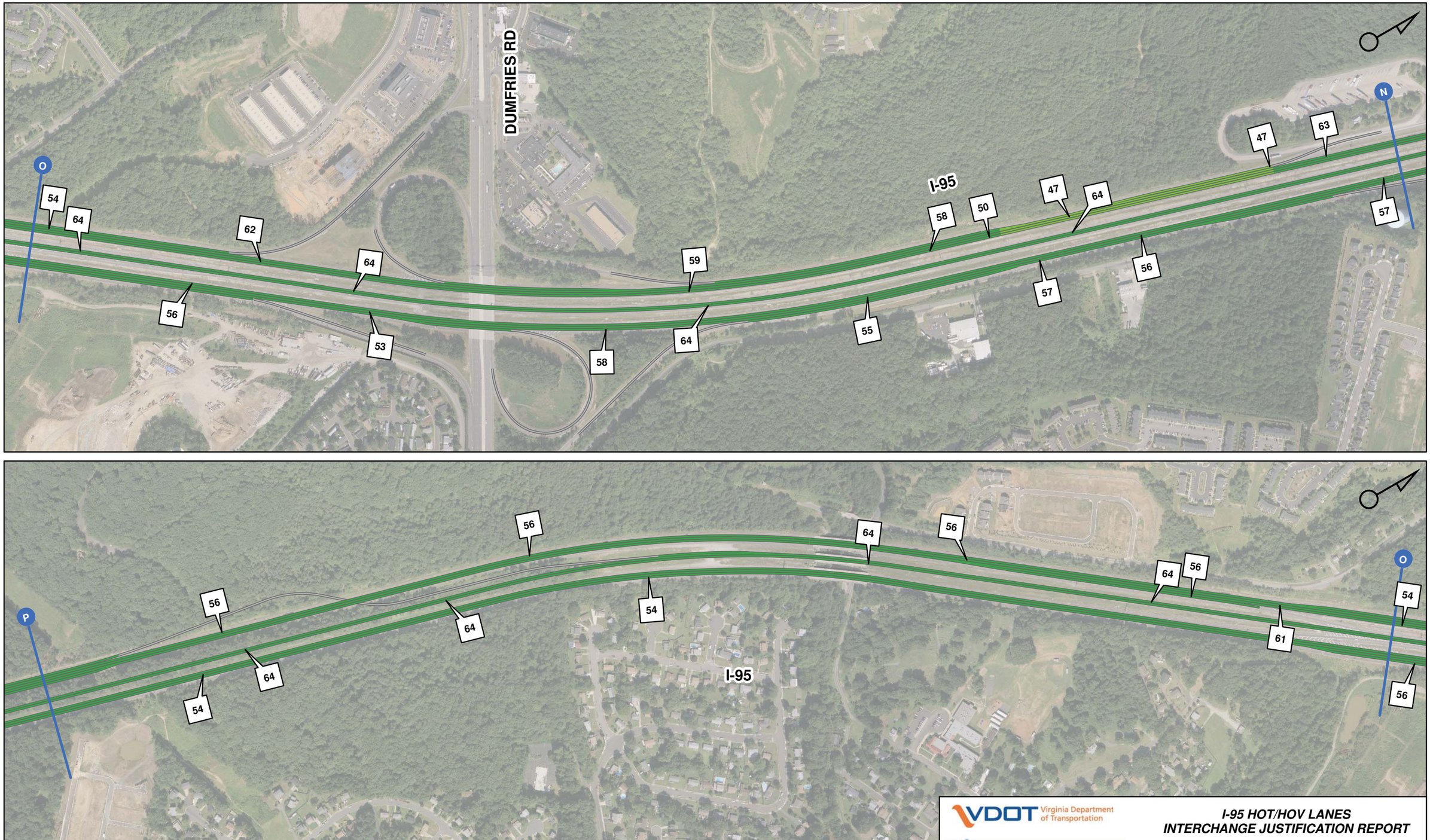
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
DALE BLVD INTERCHANGE

Figure: 9-19 G | Scale: 1" = 500' | Date: November 21, 2011 | FINAL



Feet
0 250 500 1,000

Average Speed - miles per hour (MPH)

123 — 10 - 20 MPH — 20 - 30 MPH — 30 - 40 MPH — 40 - 50 MPH — > 50 MPH

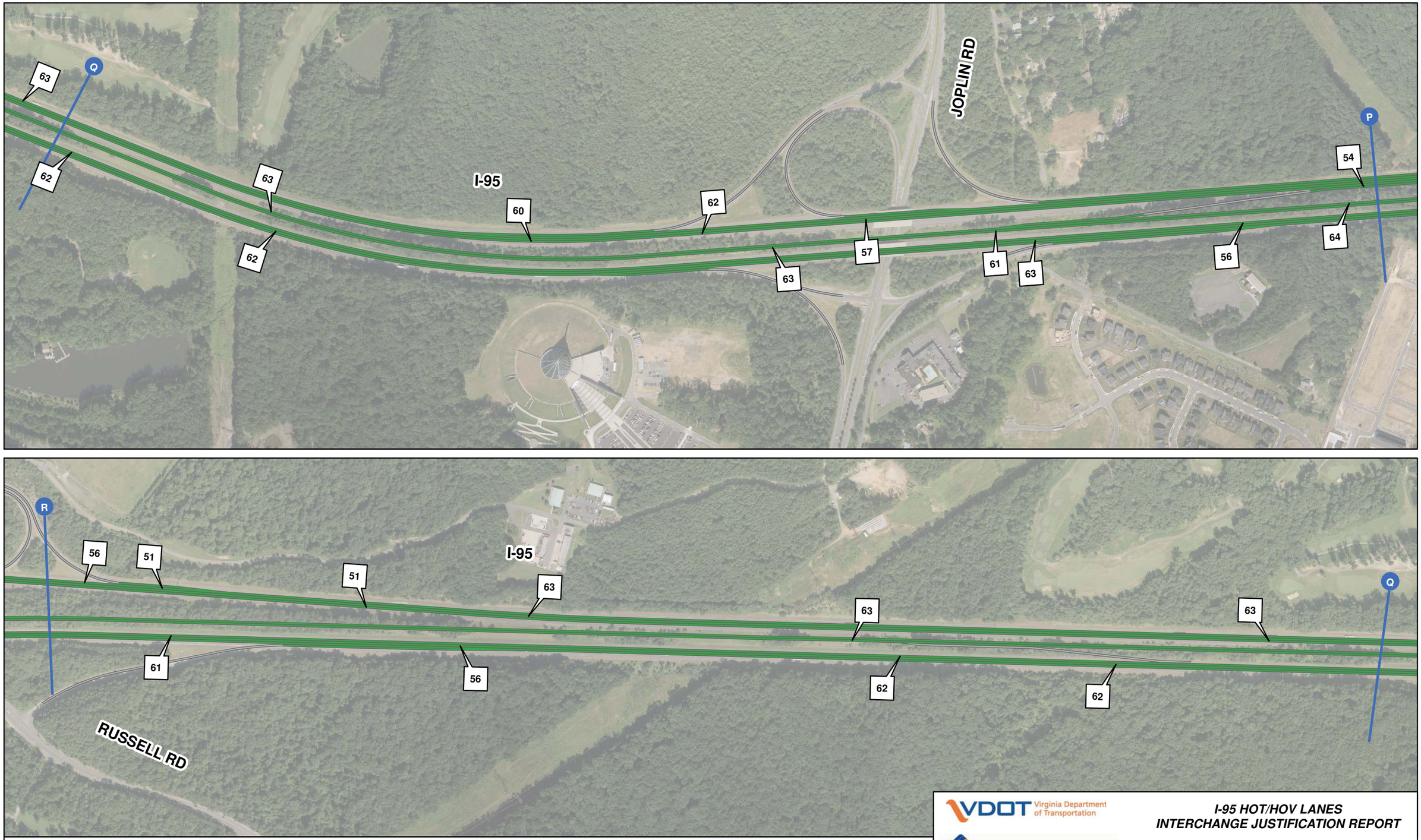
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
DUMFRIES RD INTERCHANGE

Figure: 9-19 H **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***



VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
JOPLIN RD TO RUSSEL RD

Figure: 9-19 I | Scale: 1" = 500' | Date: November 21, 2011 | *FINAL*

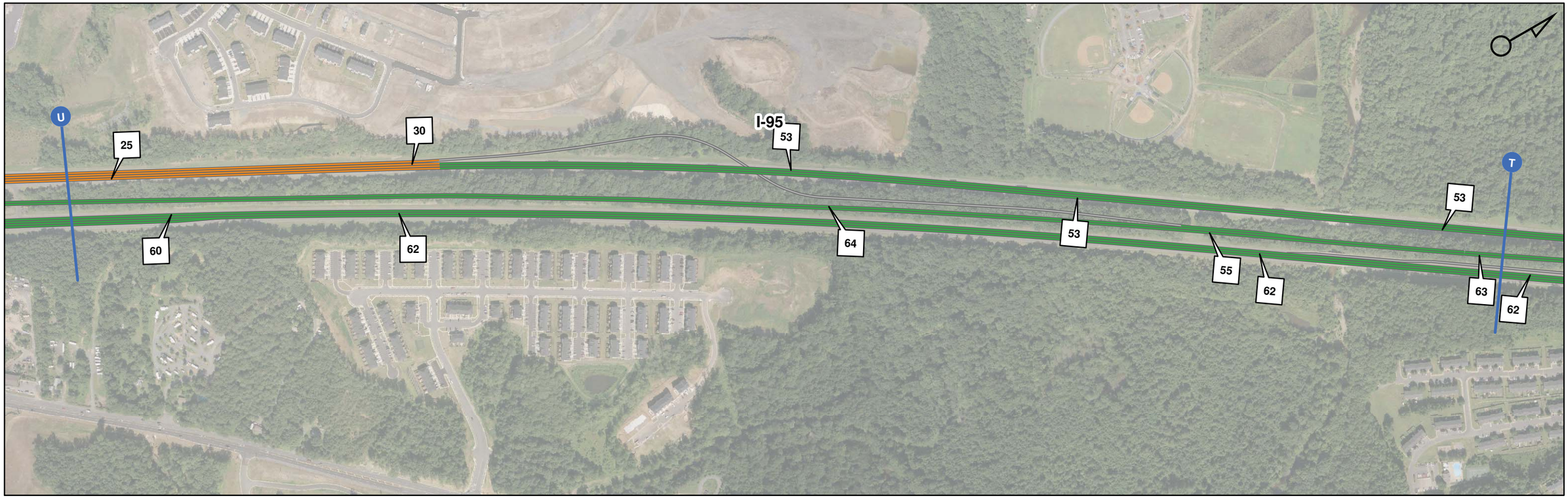
VDOT Virginia Department of Transportation

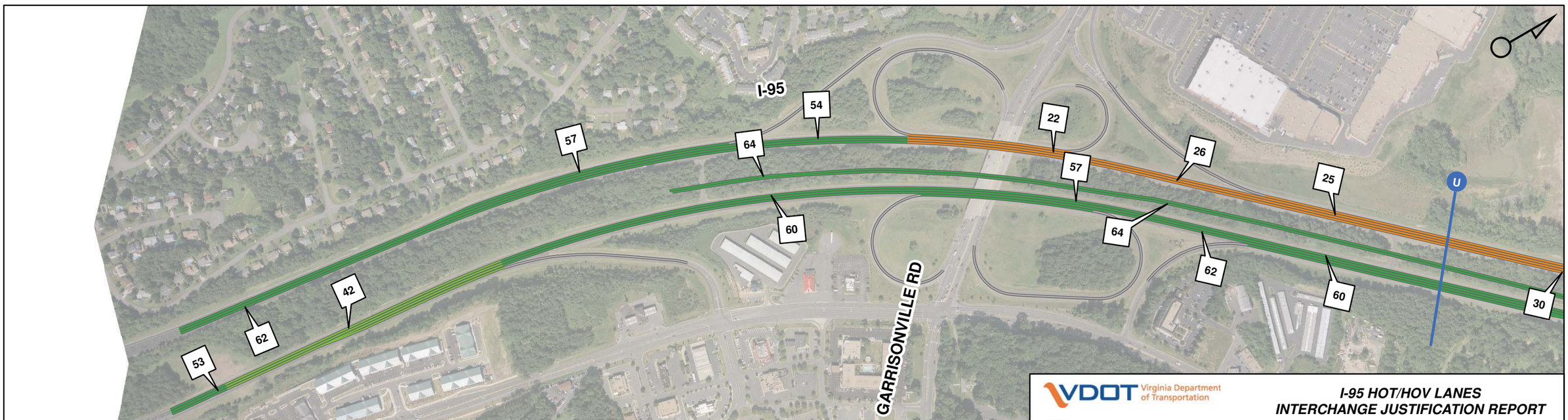
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
RUSSEL RD TO GARRISONVILLE RD

Figure: 9-19 J | Scale: 1" = 500' | Date: November 21, 2011 | FINAL





0 250 500 1,000 Feet

Average Speed - miles per hour (MPH)

123 | 10 - 20 MPH | 20 - 30 MPH | 30 - 40 MPH | 40 - 50 MPH | > 50 MPH

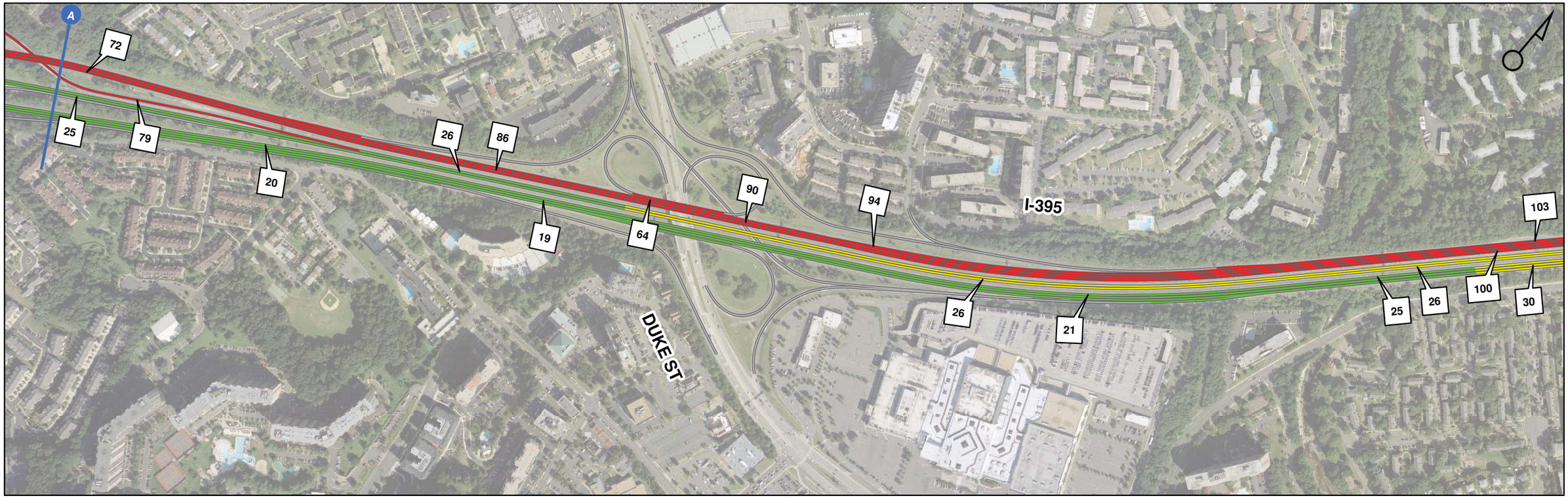
VDOT Virginia Department of Transportation

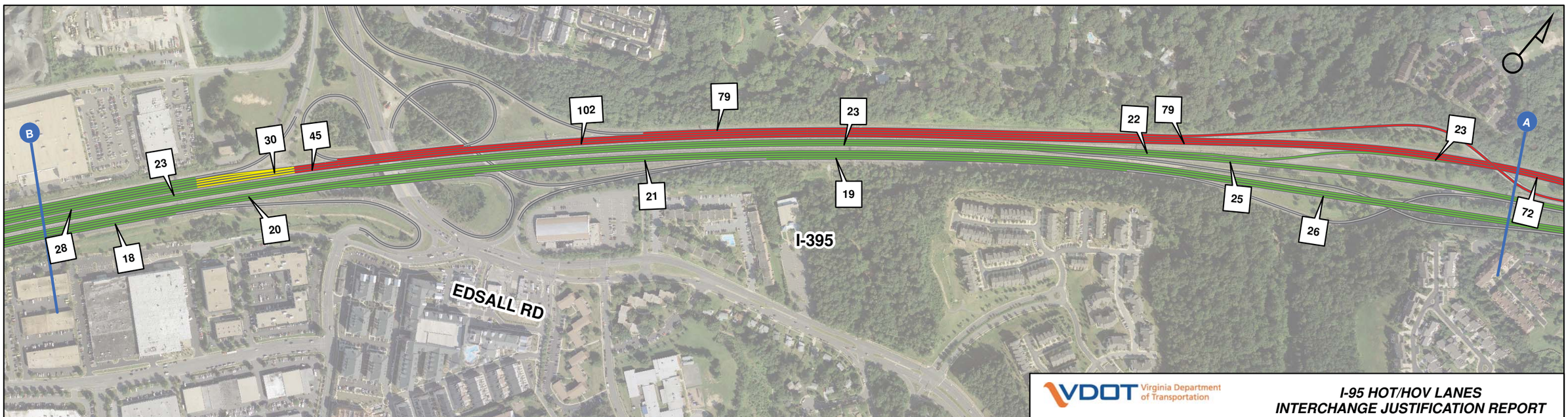
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM - AVERAGE SPEED
GARRISONVILLE RD INTERCHANGE

Figure: 9-19 K **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

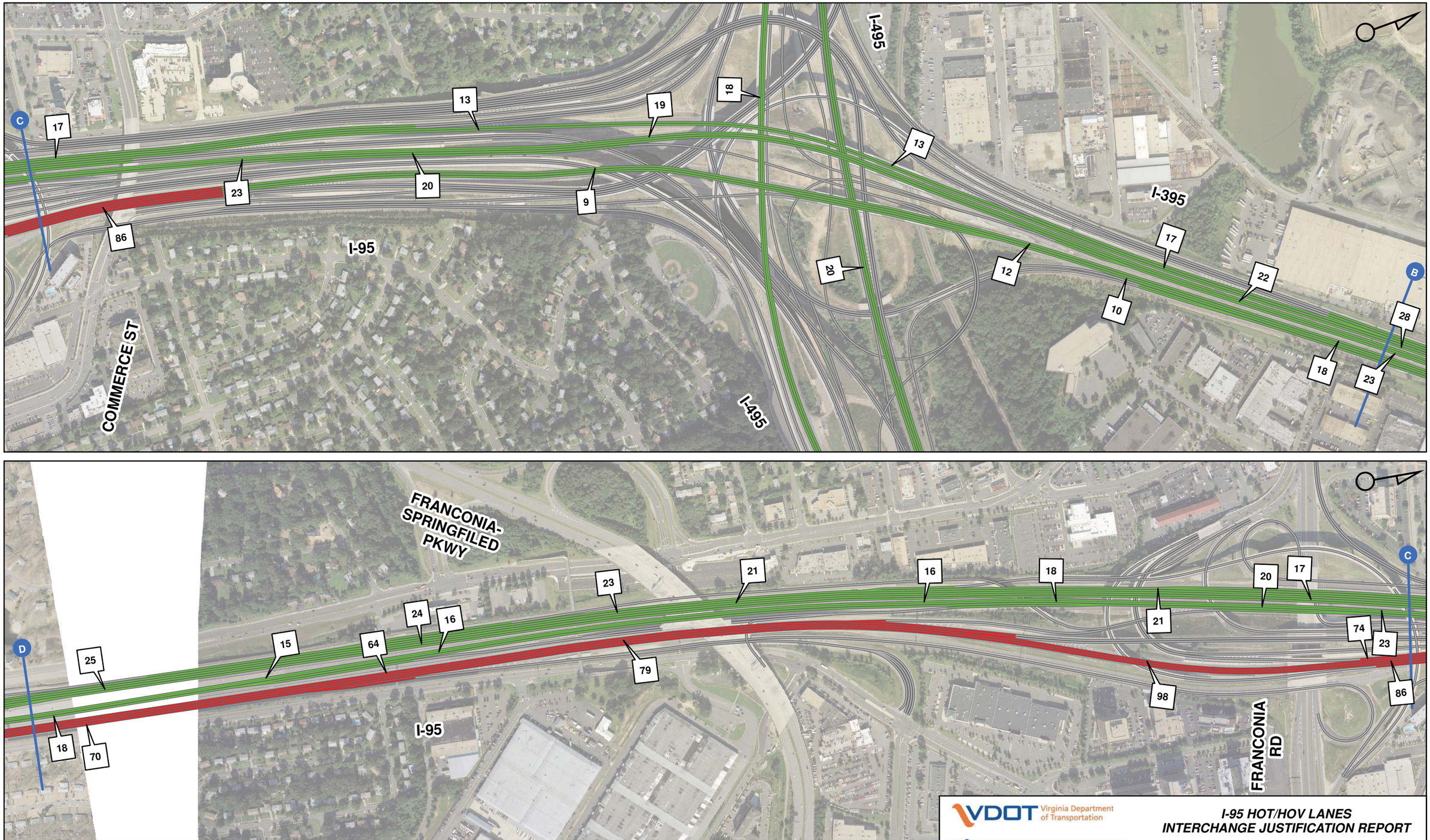
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
DUKE ST TO EDSALL RD

Figure: 9-20 A | **Scale: 1" = 500'** | **Date:** November 21, 2011 | ***FINAL***



0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

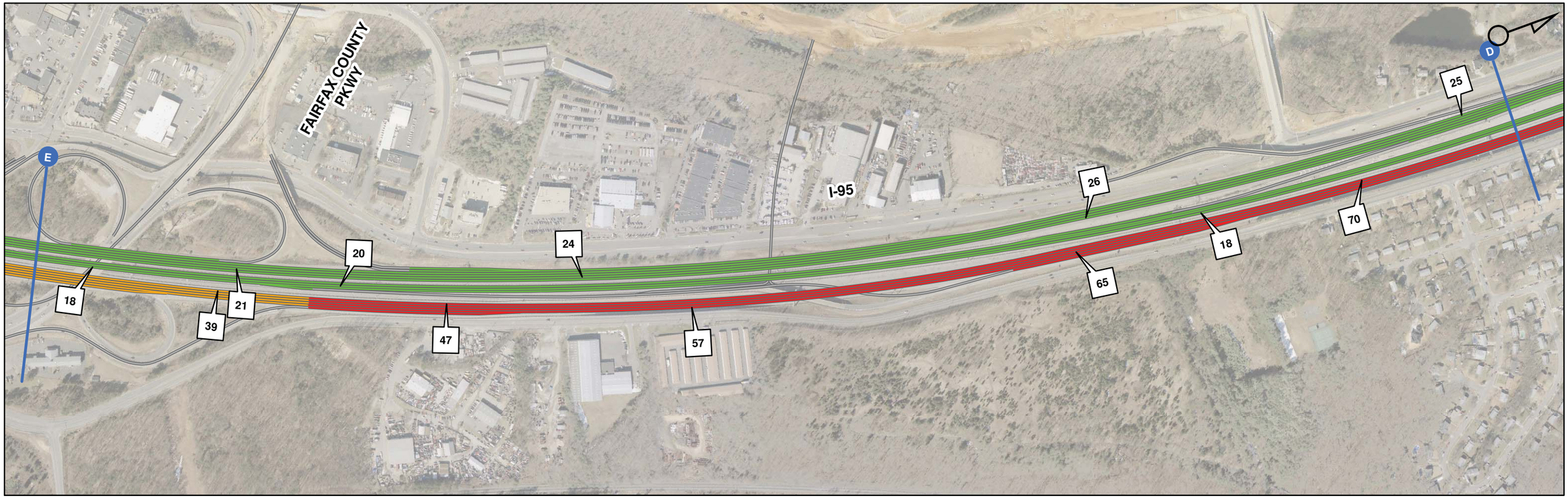
VDOT Virginia Department of Transportation

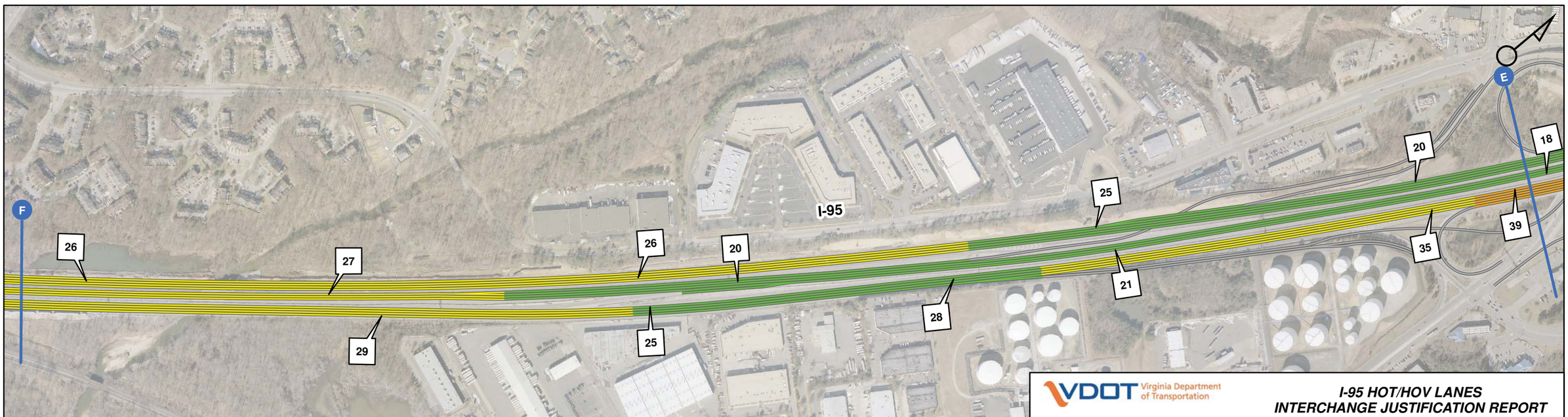
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
I-95/I-395/I-495 INTERCHANGE

Figure: 9-20 B | **Scale: 1" = 500'** | **Date:** November 21, 2011 | ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

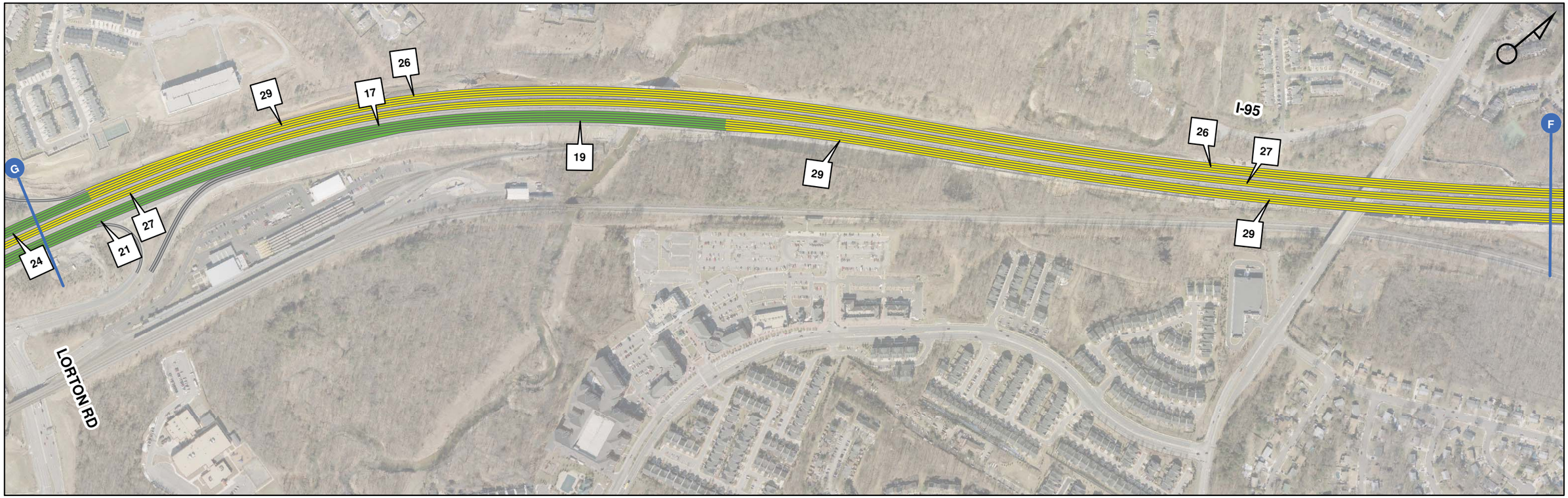
VDOT Virginia Department of Transportation

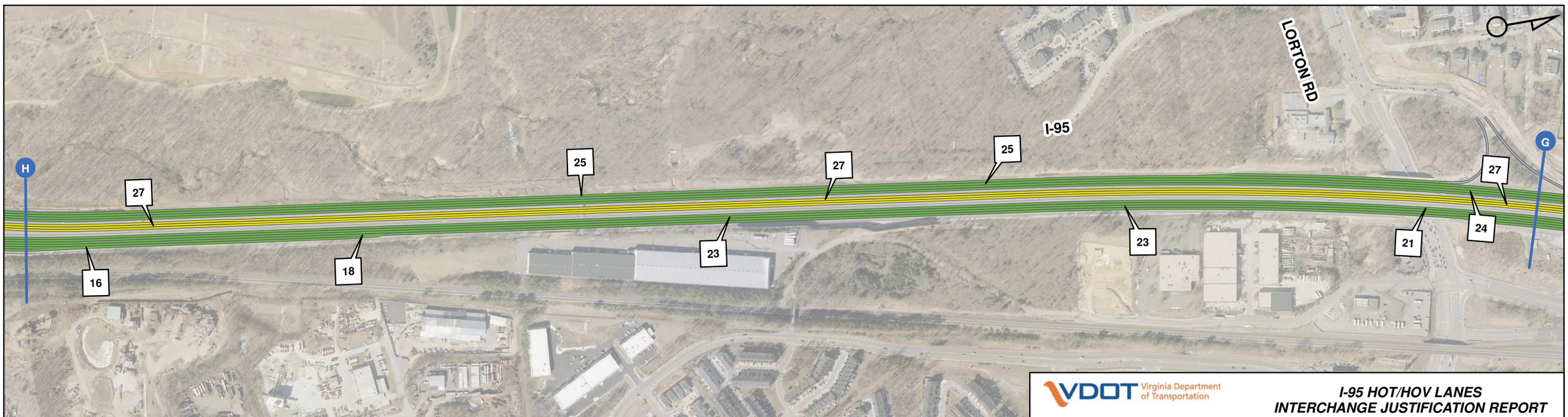
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
I-95/I-395/I-495 INTERCHANGE TO
FAIRFAX COUNTY PKWY

Figure: 9-20 C **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

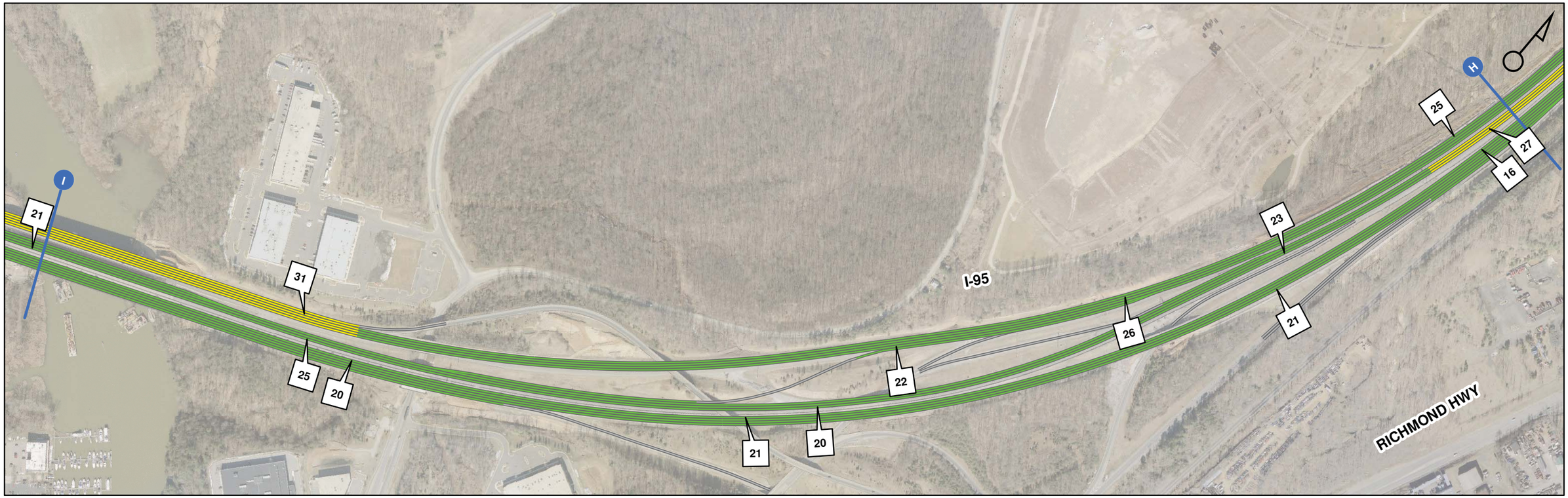
VDOT Virginia Department of Transportation

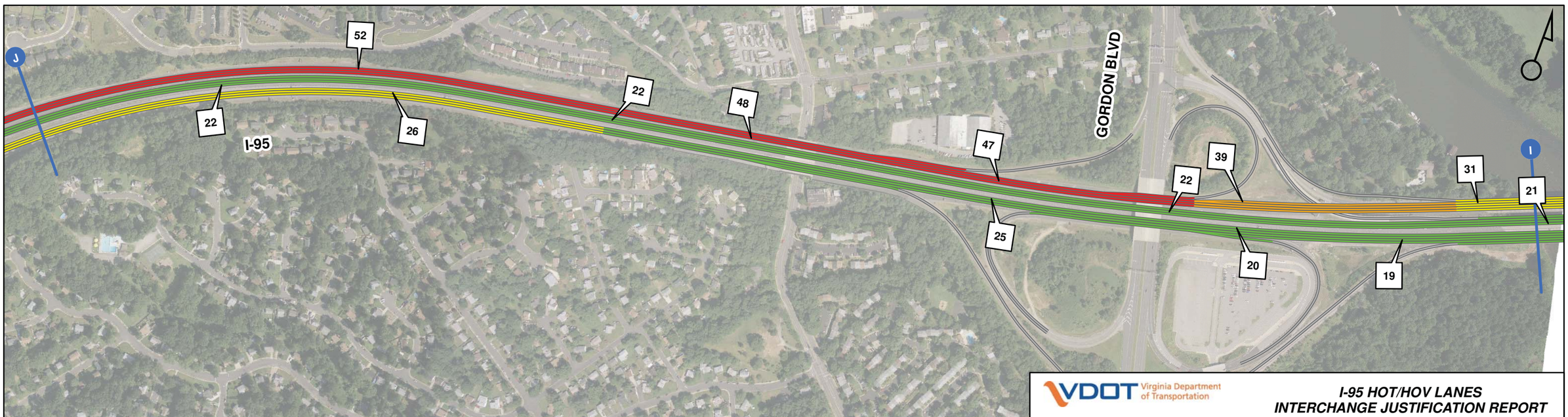
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
FAIRFAX COUNTY PKWY TO LORTON RD

Figure: 9-20 D **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

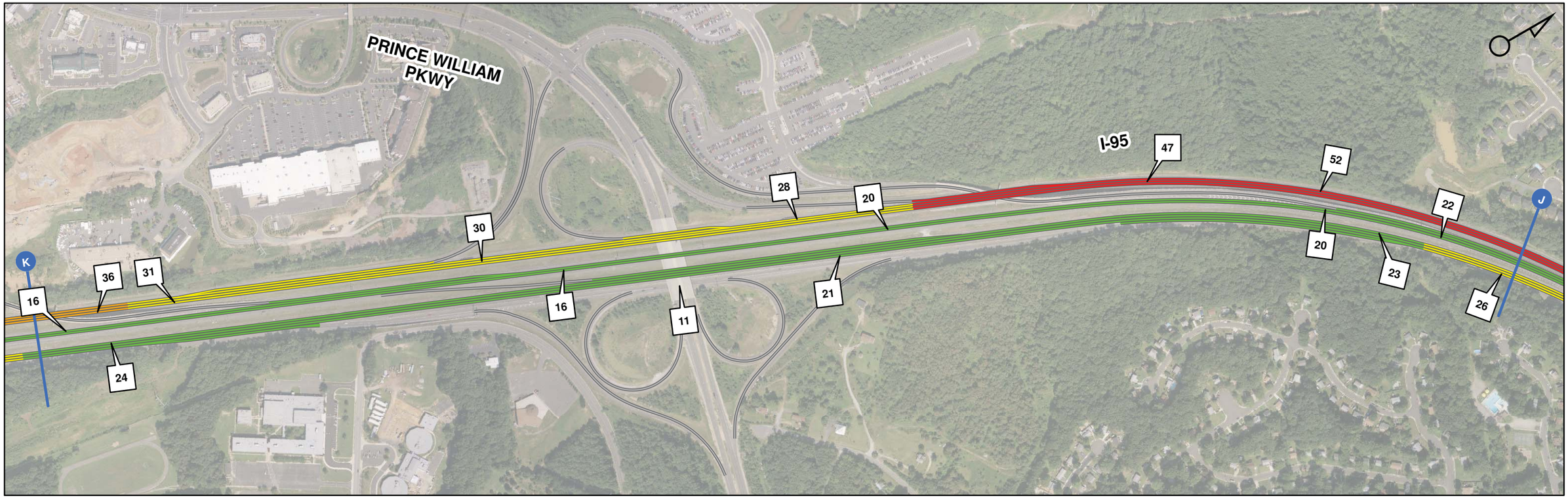
VDOT Virginia Department of Transportation

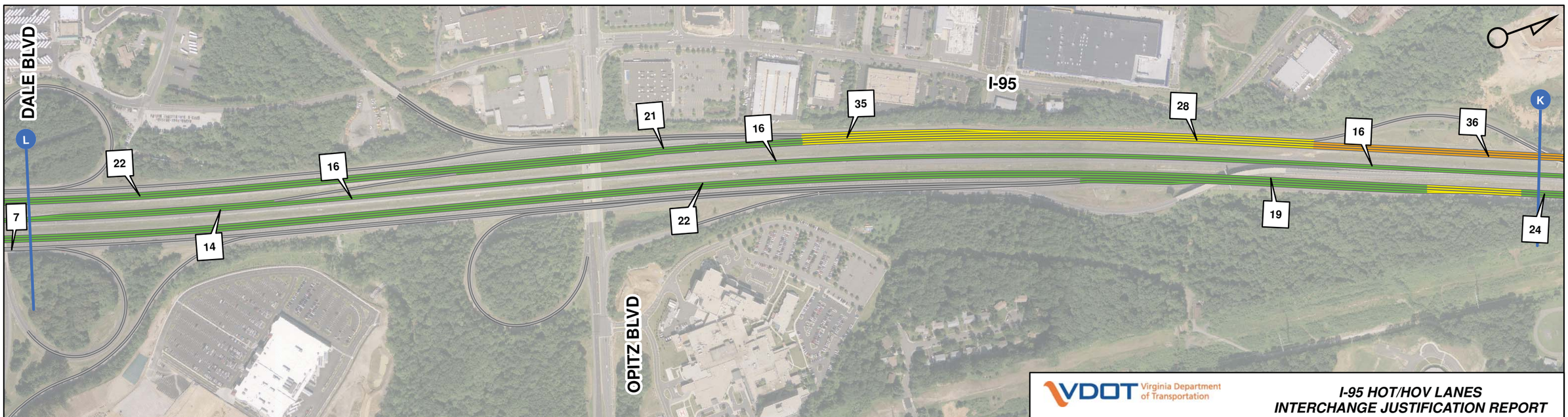
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
US 1 TO GORDON BLVD

Figure: 9-20 E **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
PRINCE WILLIAM PKWY TO DALE BLVD

Figure: 9-20 F | **Scale: 1" = 500'** | **Date:** November 21, 2011 | ***FINAL***

0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C D E F

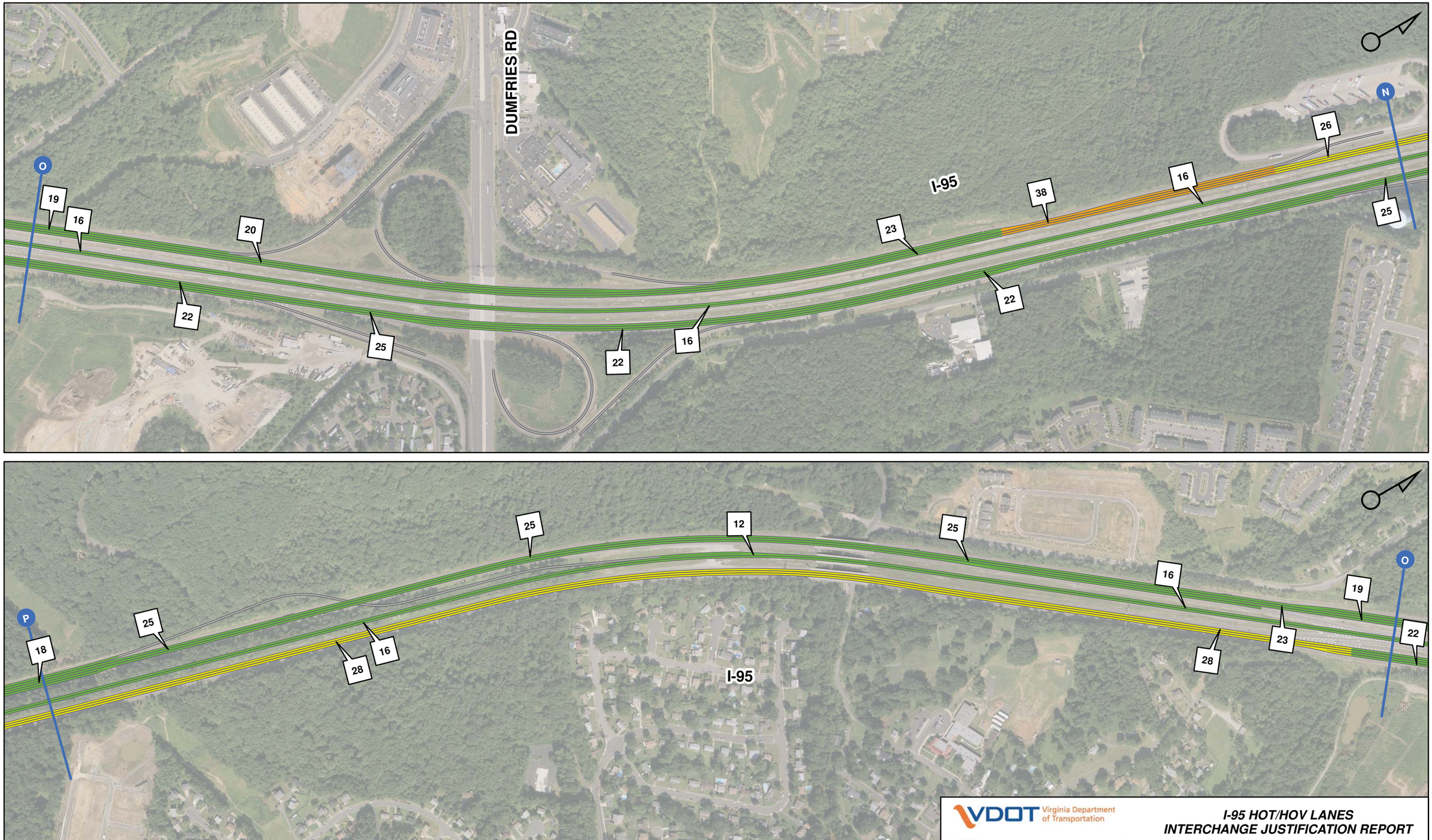
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
DALE BLVD INTERCHANGE

Figure: 9-20 G **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***



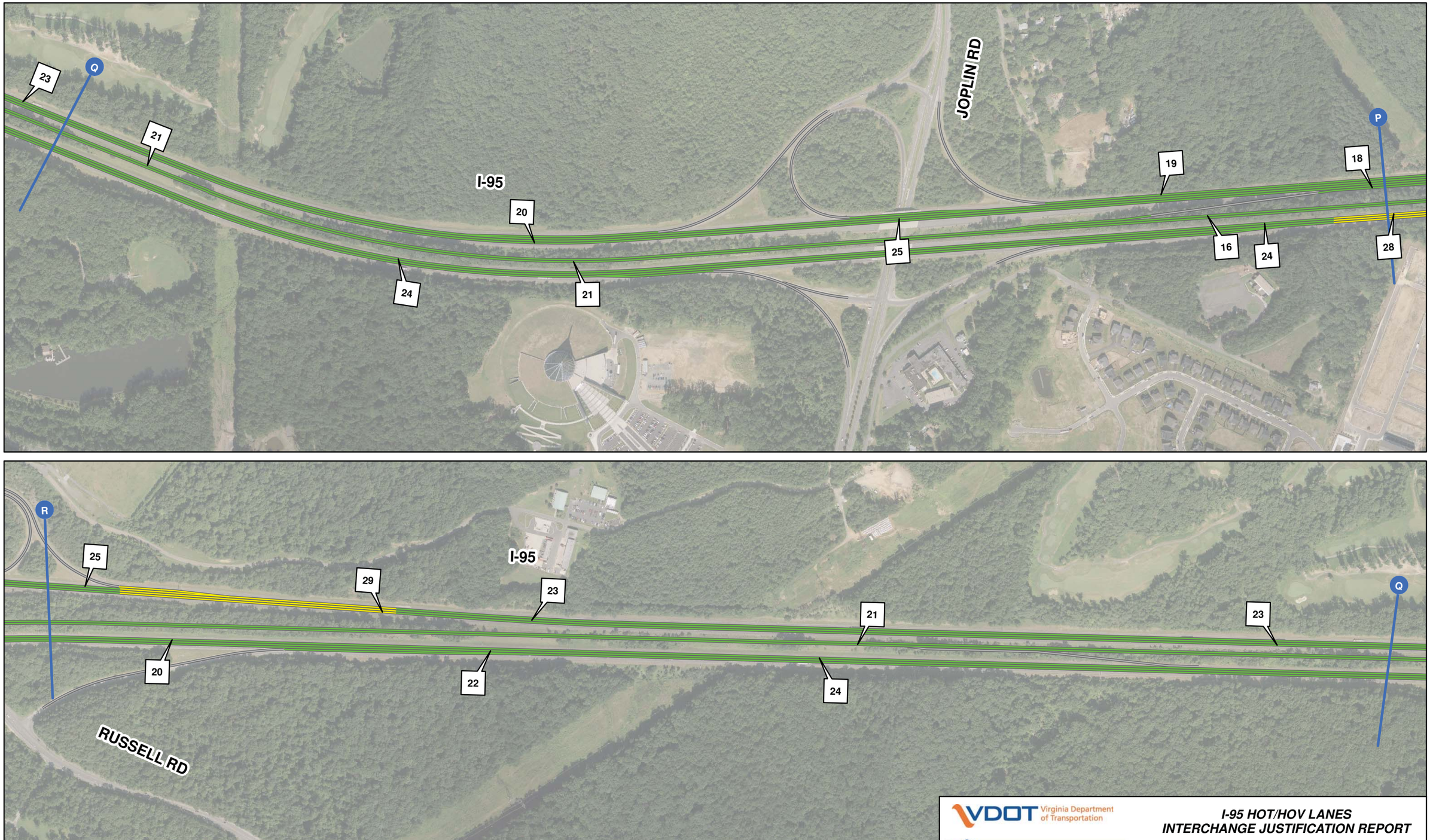
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
DUMFRIES RD INTERCHANGE

Figure: 9-20 H | Scale: 1" = 500' | Date: November 21, 2011 | FINAL



0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C D E F

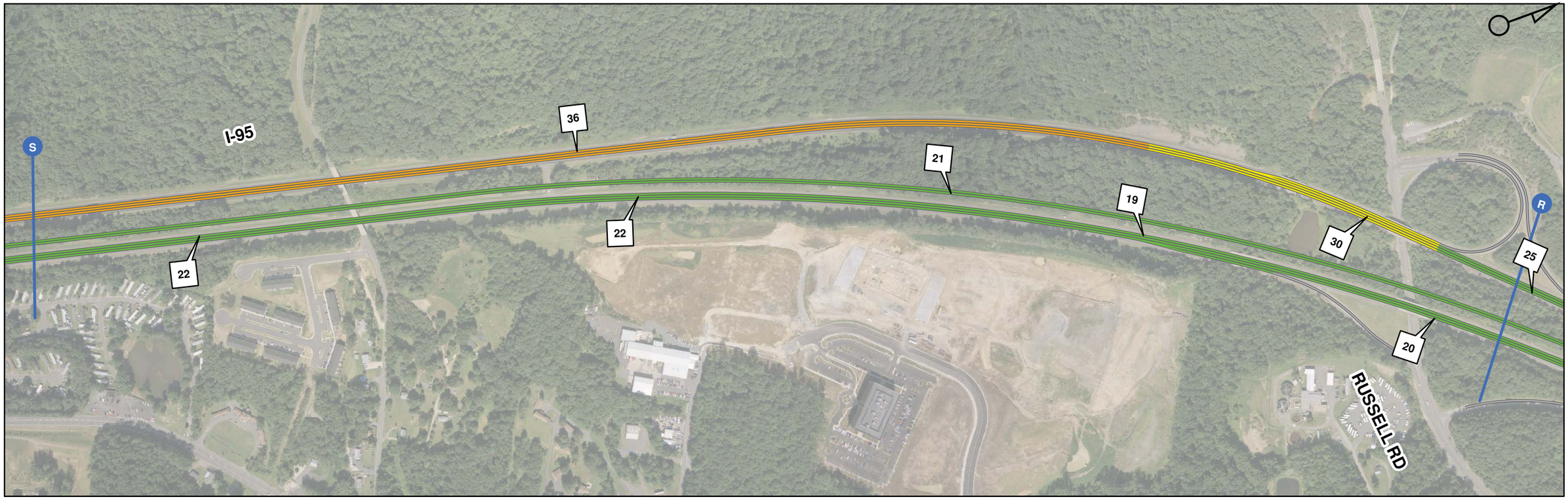
VDOT Virginia Department of Transportation

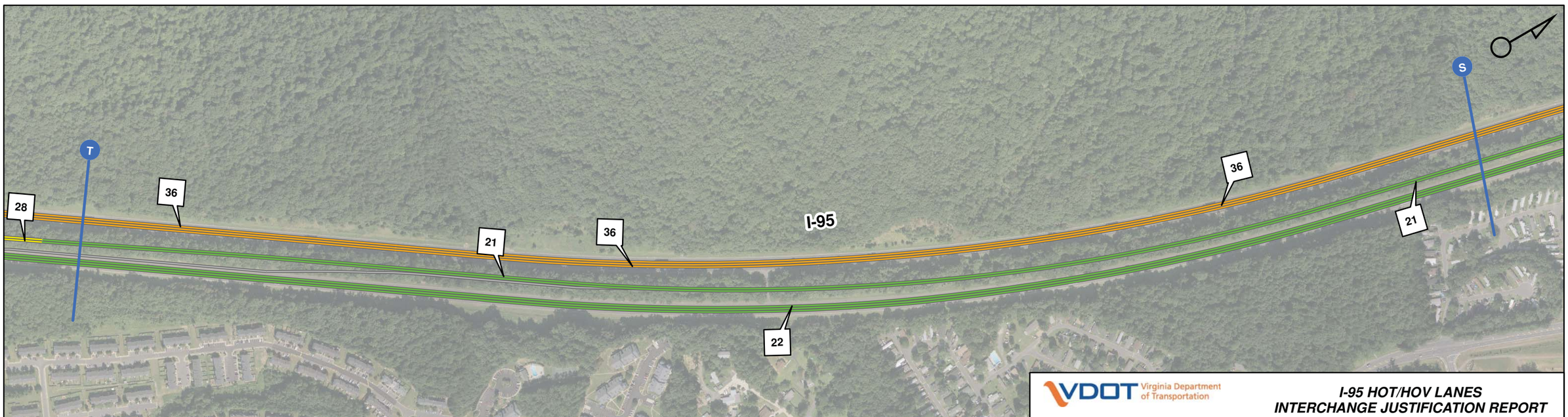
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
JOPLIN RD TO RUSSEL RD

Figure: 9-20 I **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

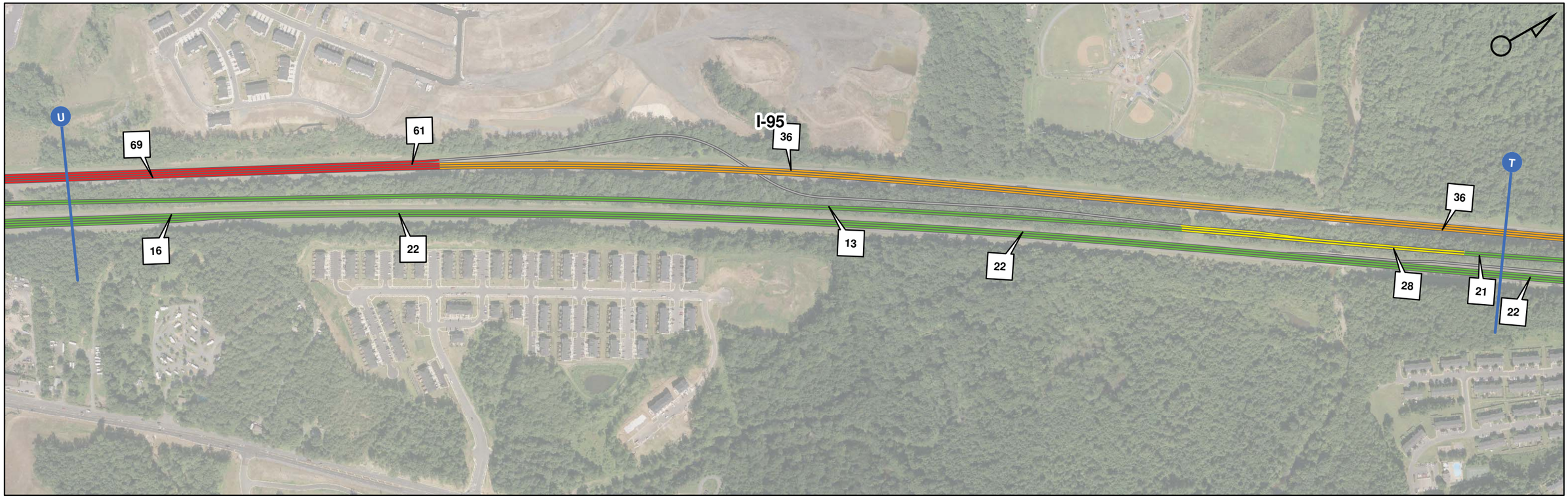
VDOT Virginia Department of Transportation

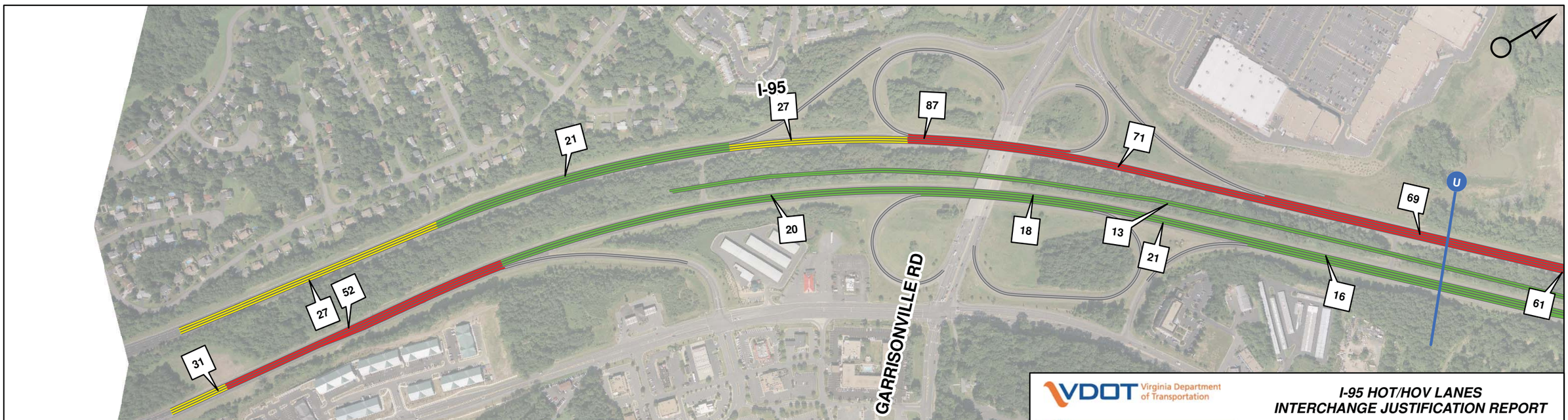
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
RUSSEL RD TO GARRISONVILLE RD

Figure: 9-20 J **Scale: 1" = 500'** **Date:** November 21, 2011 ***FINAL***





0 250 500 1,000 Feet

Density - vehicles per hour per lane

123

Level of Service

A - C | D | E | F

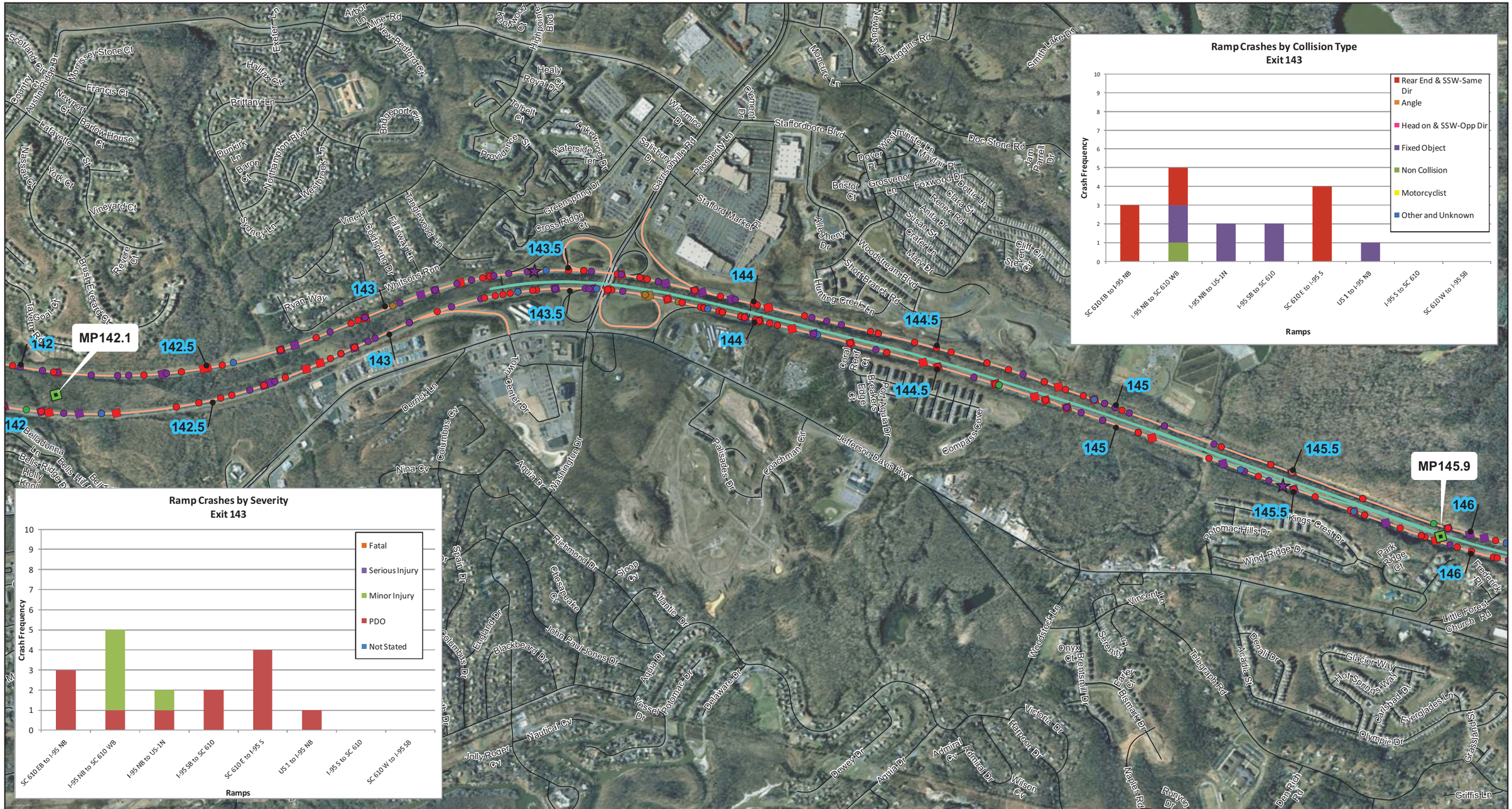
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

2035 BUILD PM LEVEL OF SERVICE
GARRISONVILLE RD INTERCHANGE

Figure: 9-20 K | **Scale: 1" = 500'** | **Date:** November 21, 2011 | ***FINAL***



Crash Severity

- ☆ Fatal
- △ Serious Injury
- □ Minor Injury
- ○ PDO

Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

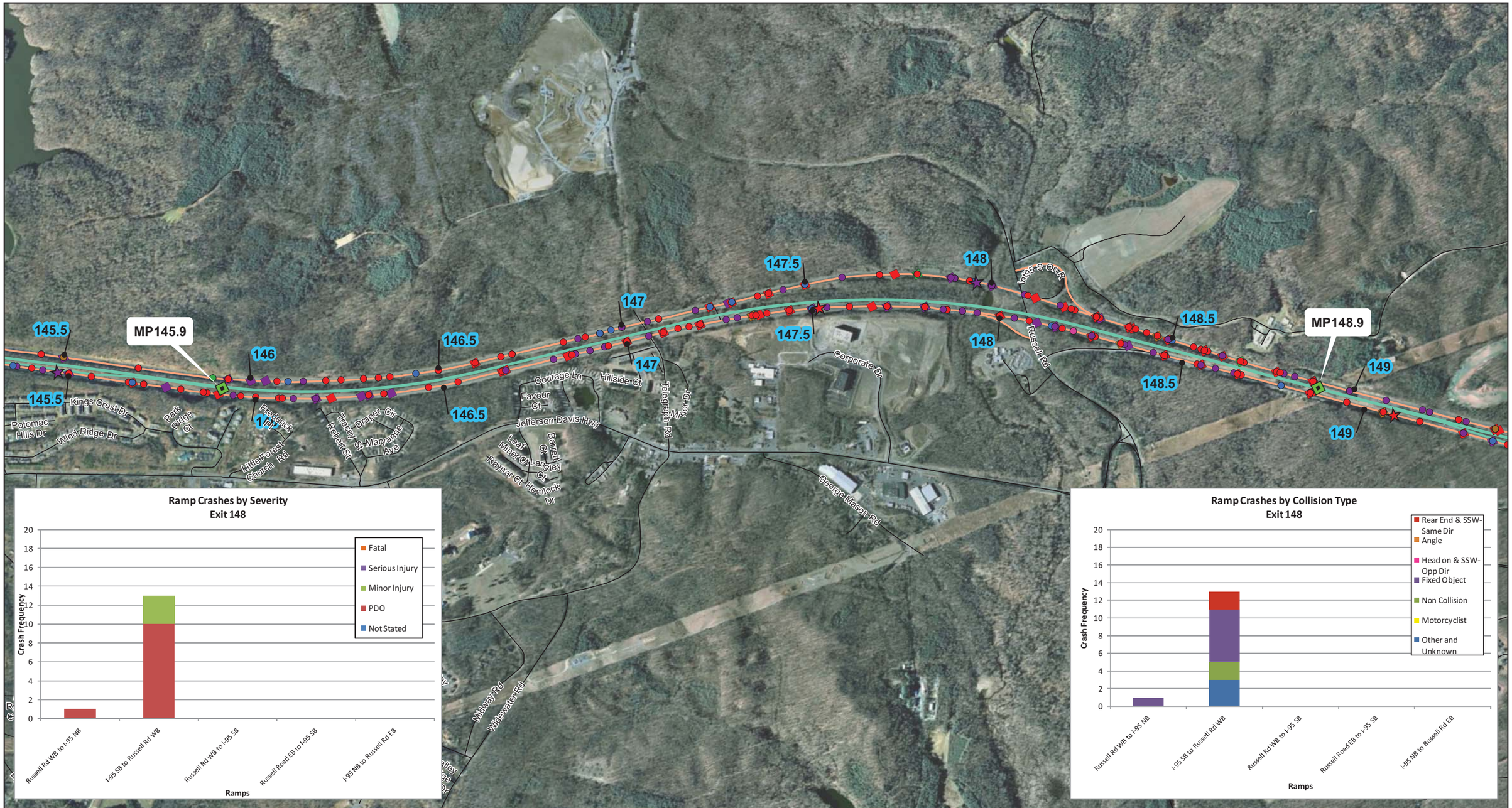
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 1 of 14

November 21, 2011



Crash Severity

- ☆ Fatal
- △ Serious Injury
- □ Minor Injury
- ○ PDO

Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

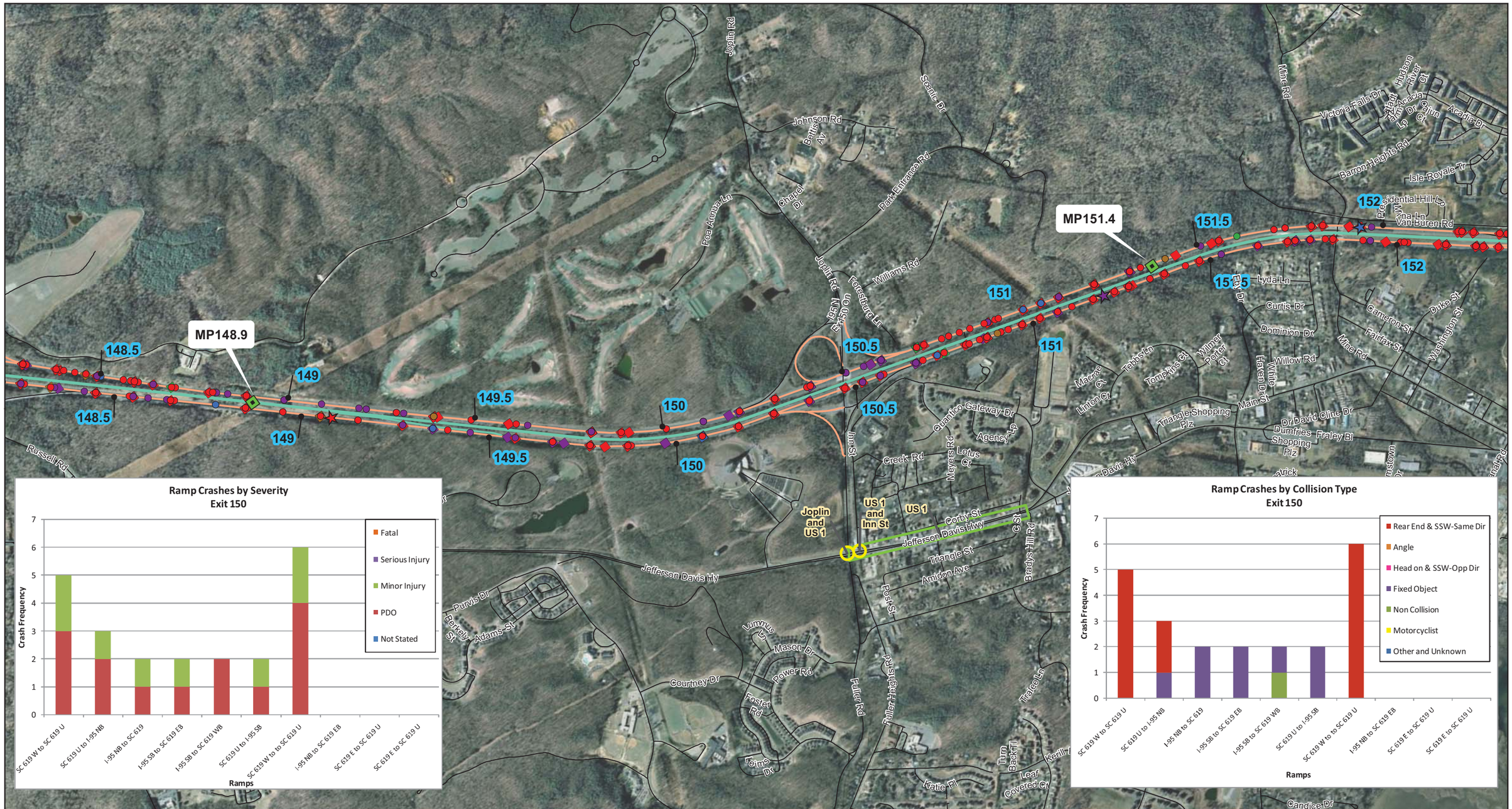
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 2 of 14

November 21, 2011



Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

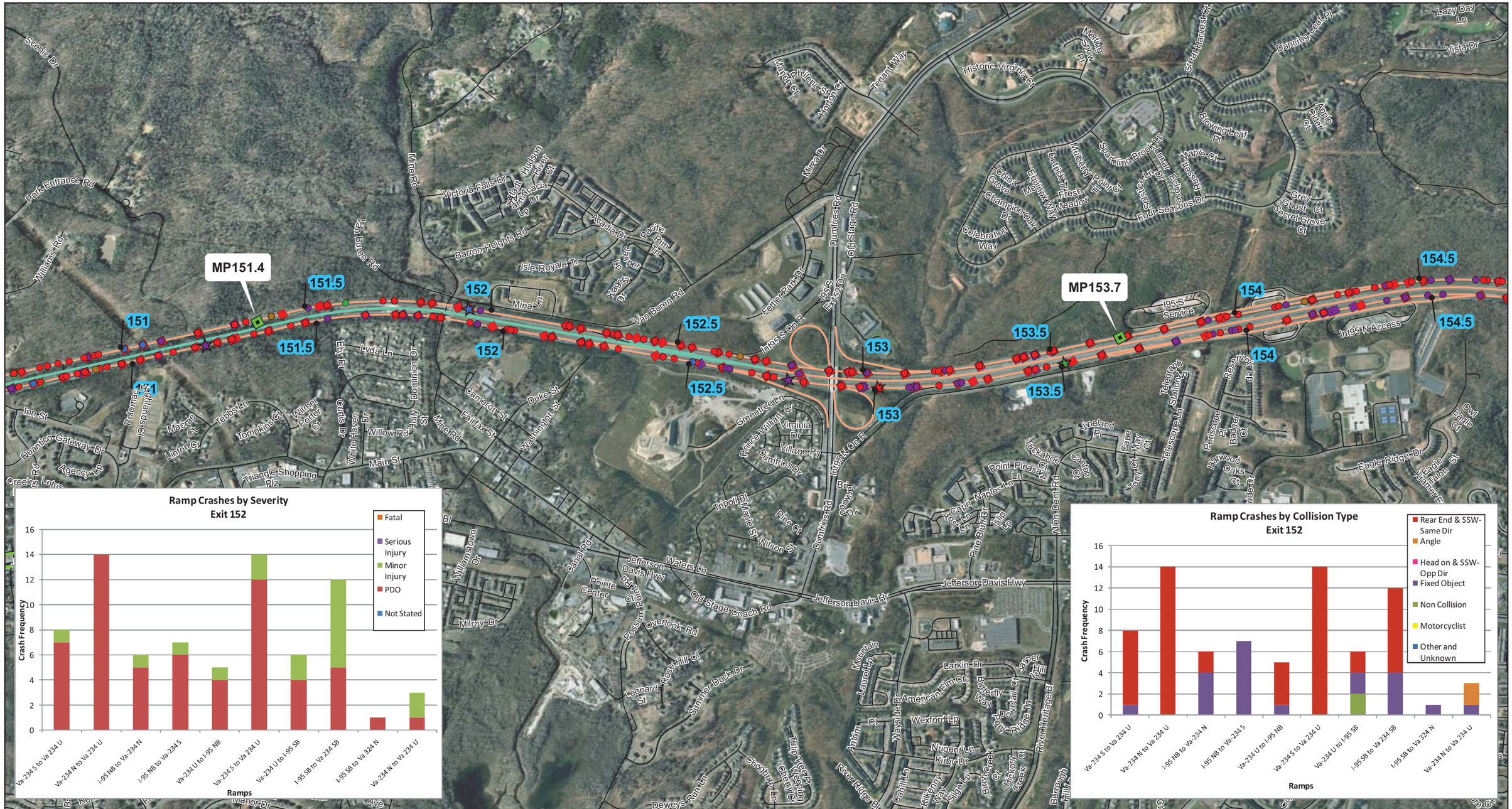
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 3 of 14

November 21, 2011



Crash Severity

- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

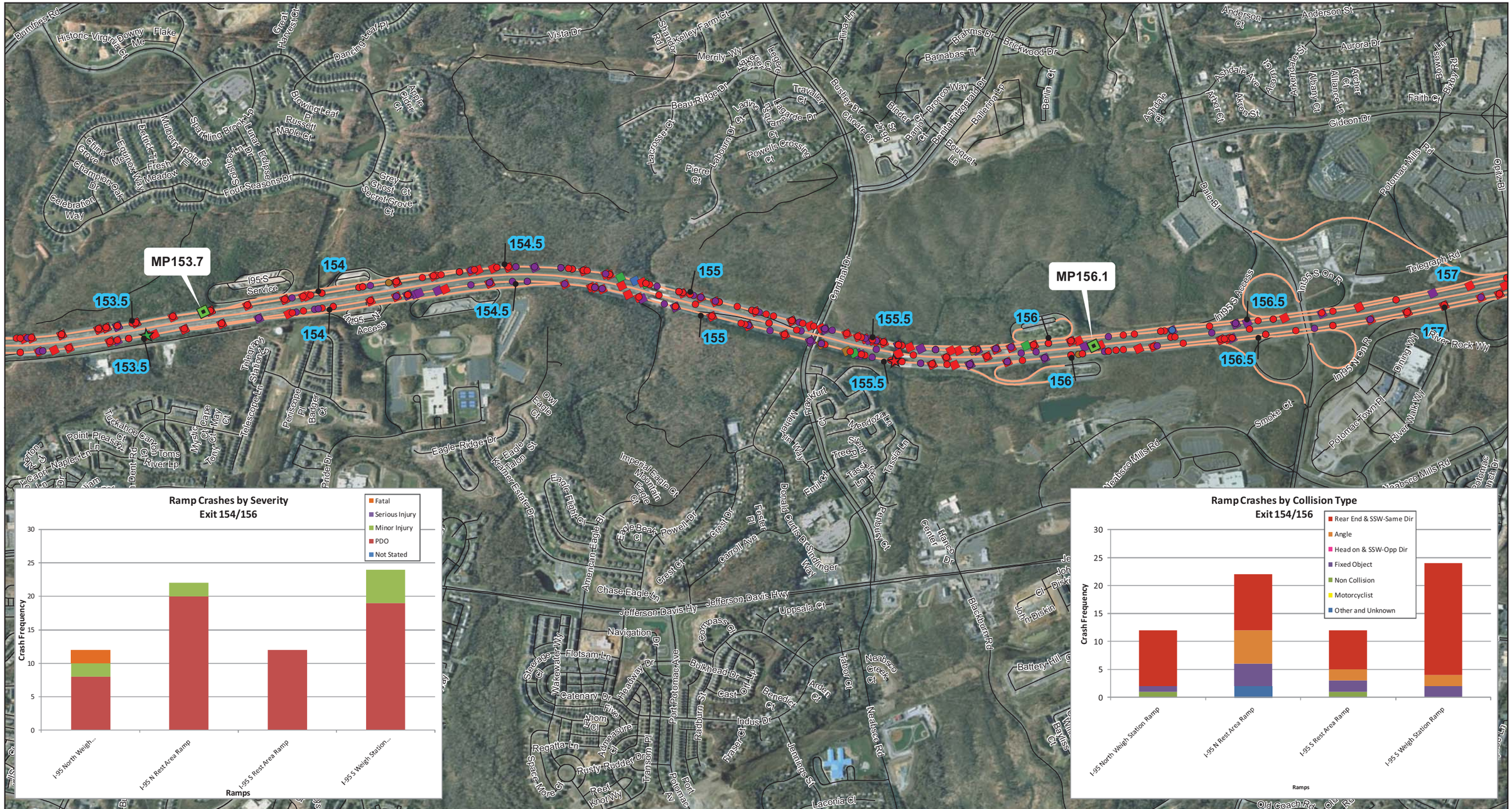
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 4 of 14

November 21, 2011



Crash Severity

- ☆ Fatal
- △ Serious Injury
- □ Minor Injury
- ○ PDO

Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

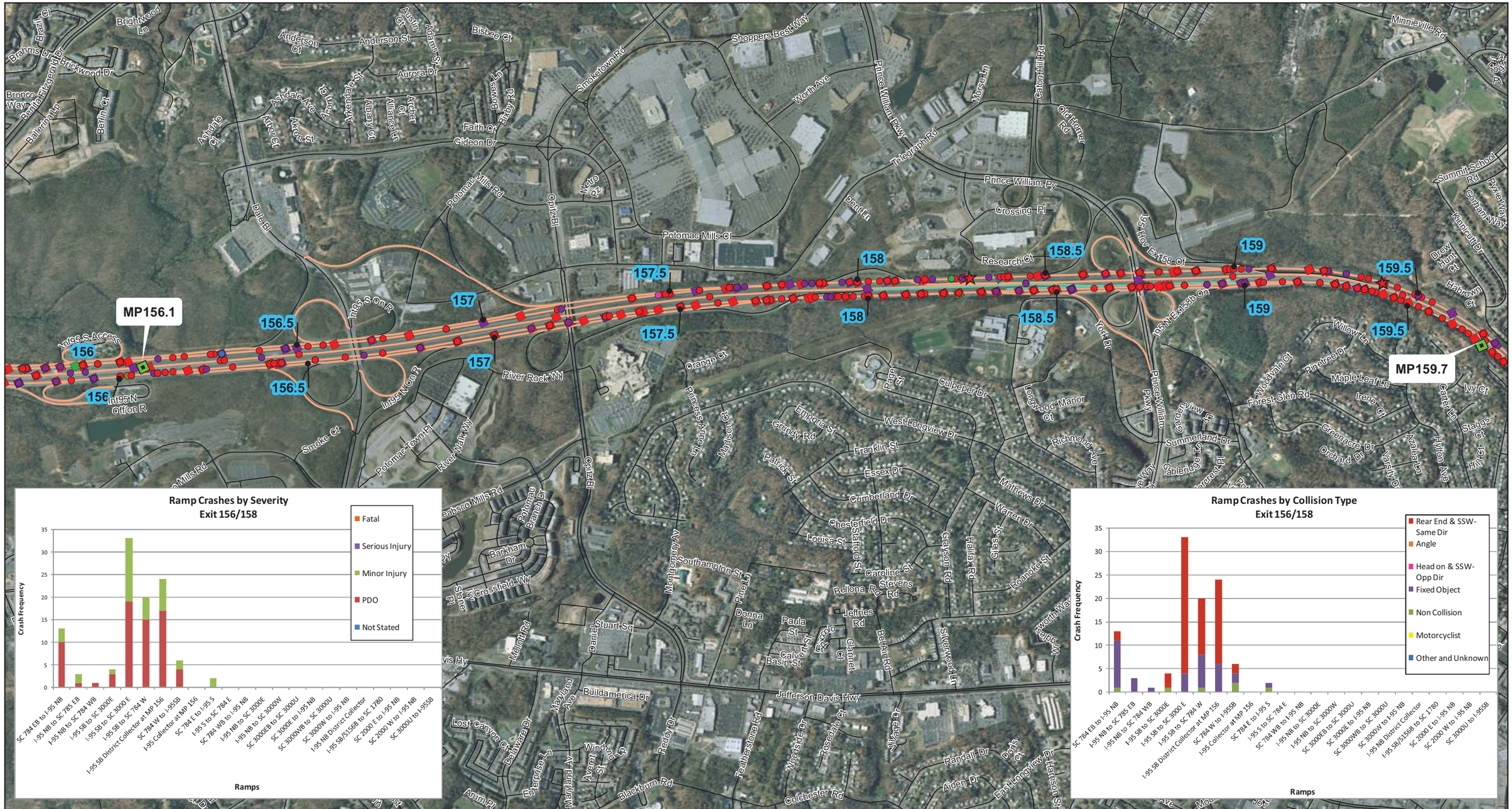
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 5 of 14

November 21, 2011



Crash Severity

- ☆ Fatal
- △ Serious Injury
- □ Minor Injury
- ○ PDO

Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

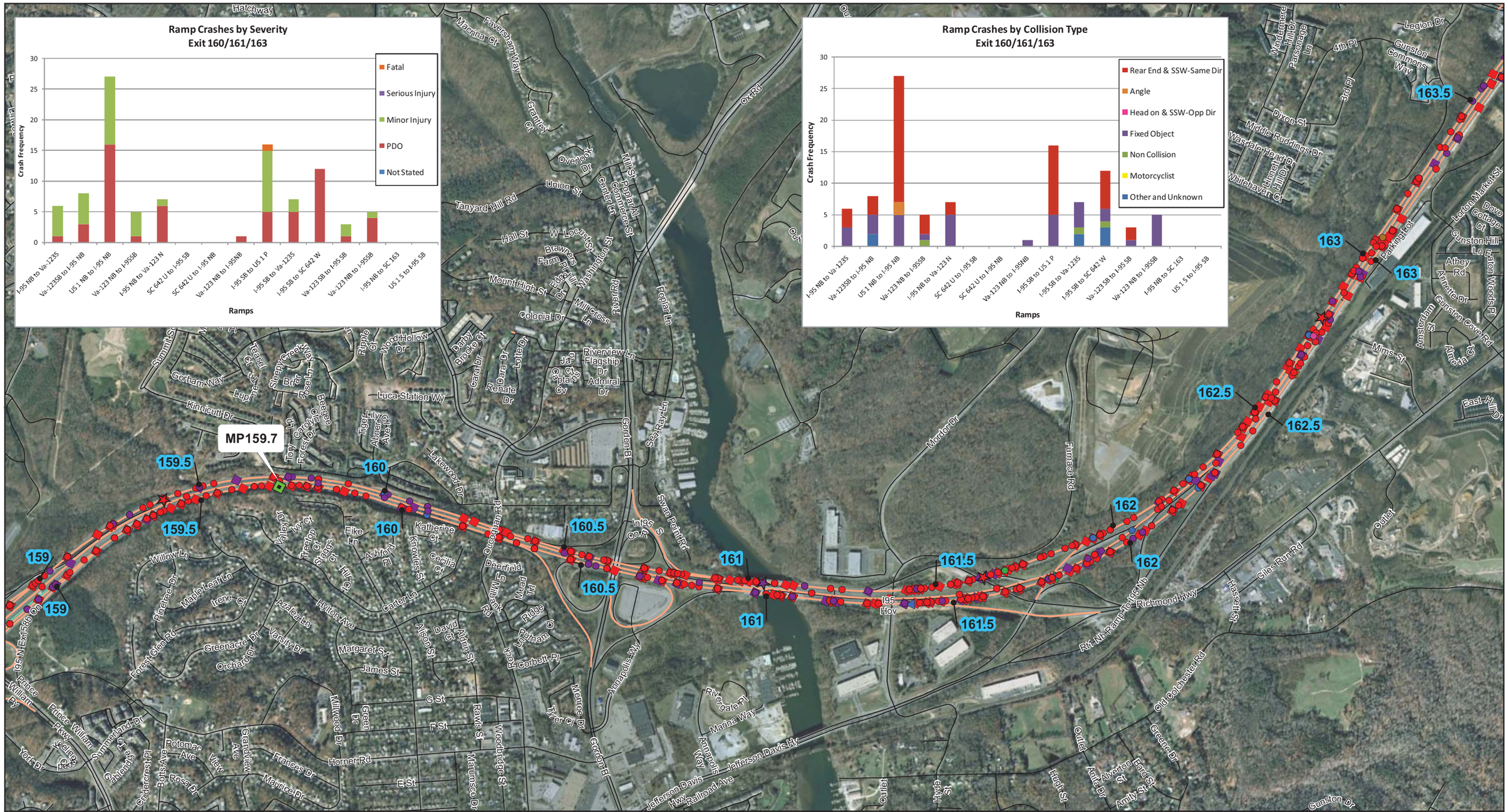
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 6 of 14

November 21, 2011



Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

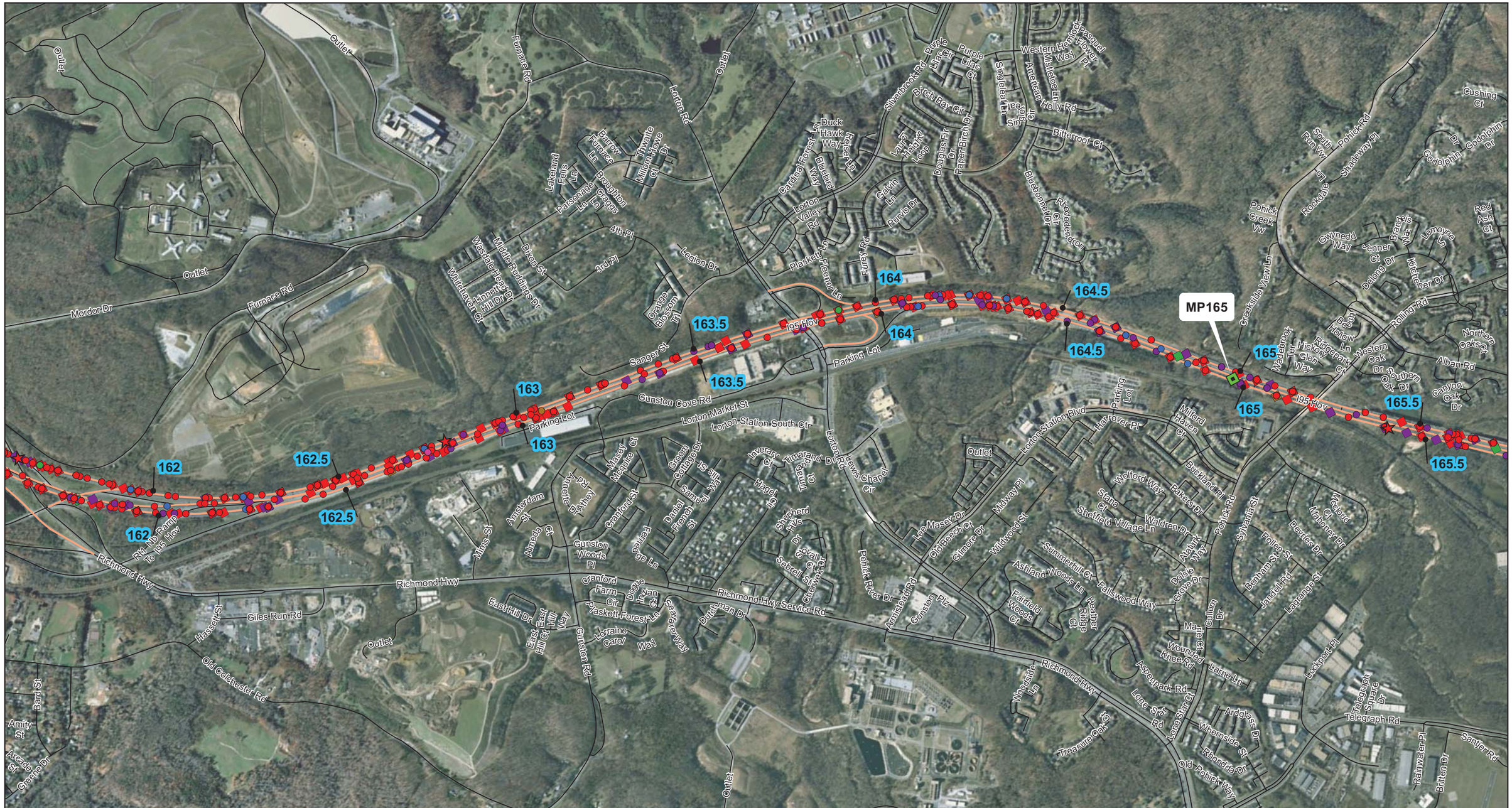
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 7 of 14

November 21, 2011



Crash Severity

- Fatal
- Serious Injury
- Minor Injury
- PDO

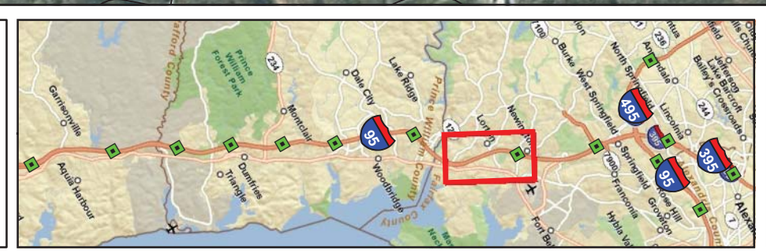
Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet



VDOT Virginia Department of Transportation

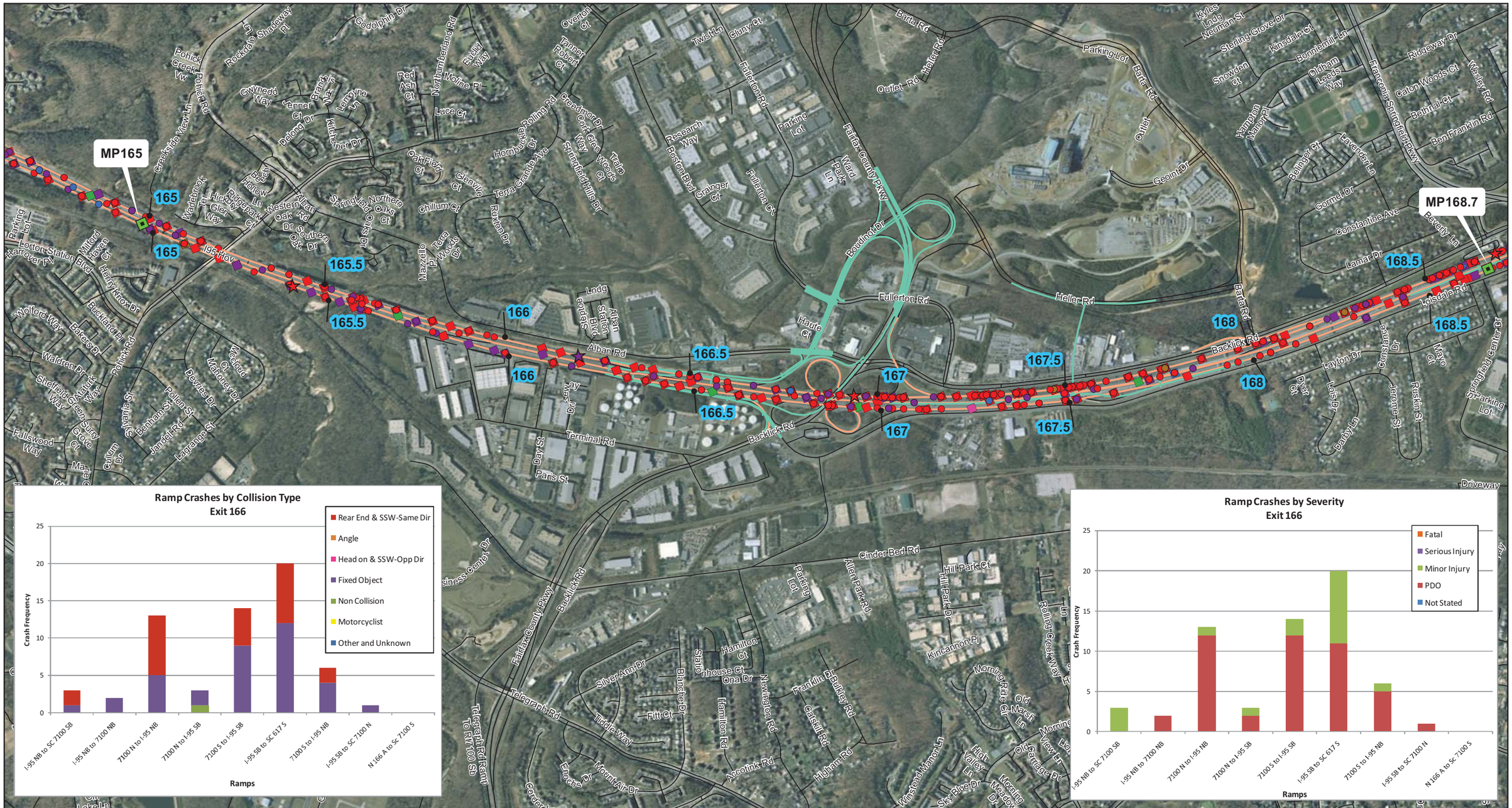
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 8 of 14

November 21, 2011



Crash Severity

- ☆ Fatal
- △ Serious Injury
- □ Minor Injury
- ○ PDO

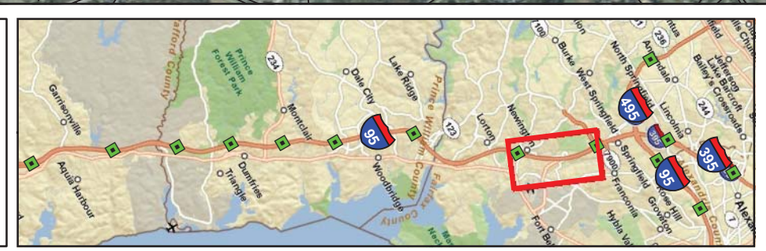
Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet



VDOT Virginia Department of Transportation

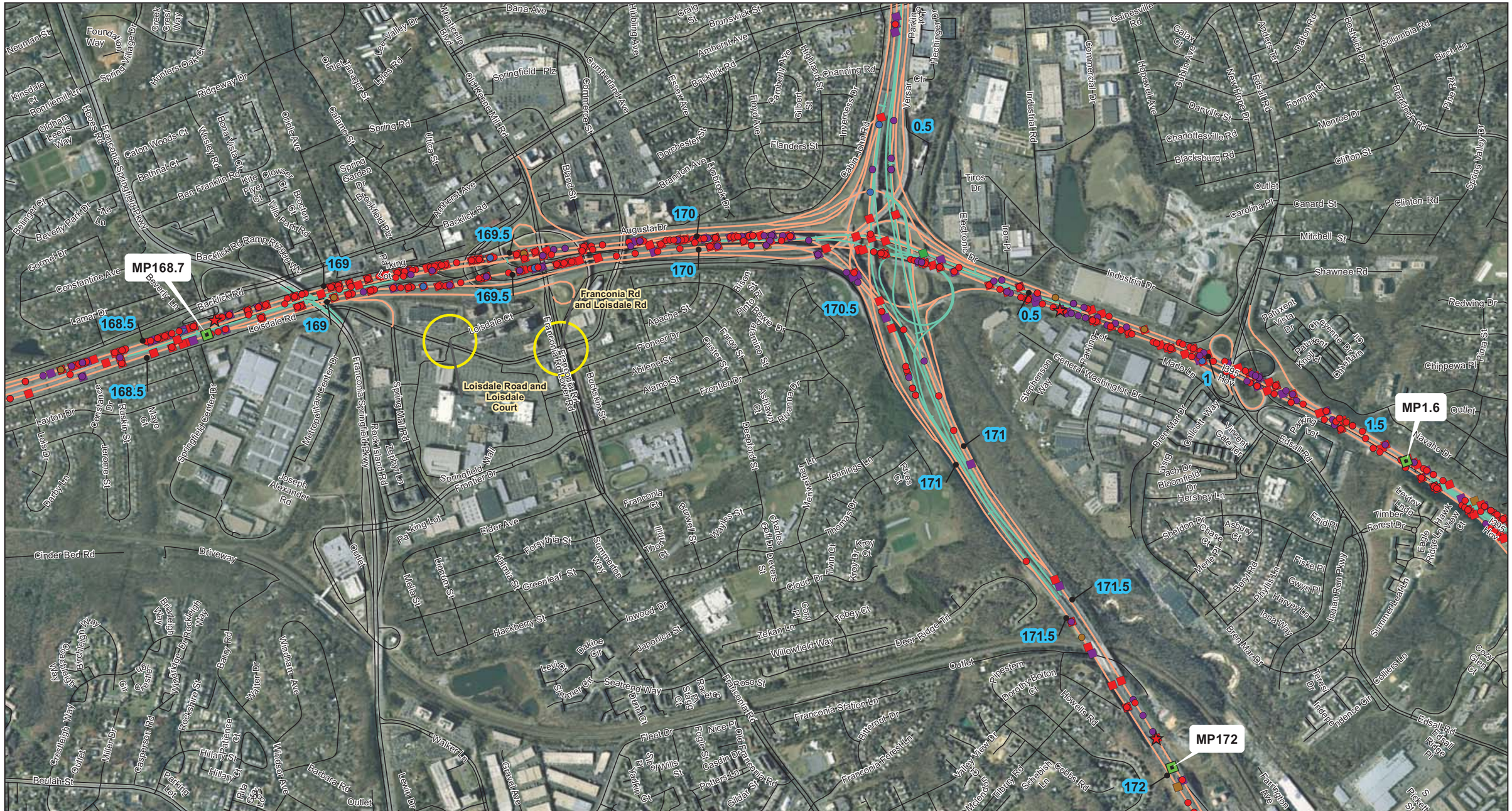
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 9 of 14

November 21, 2011



Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

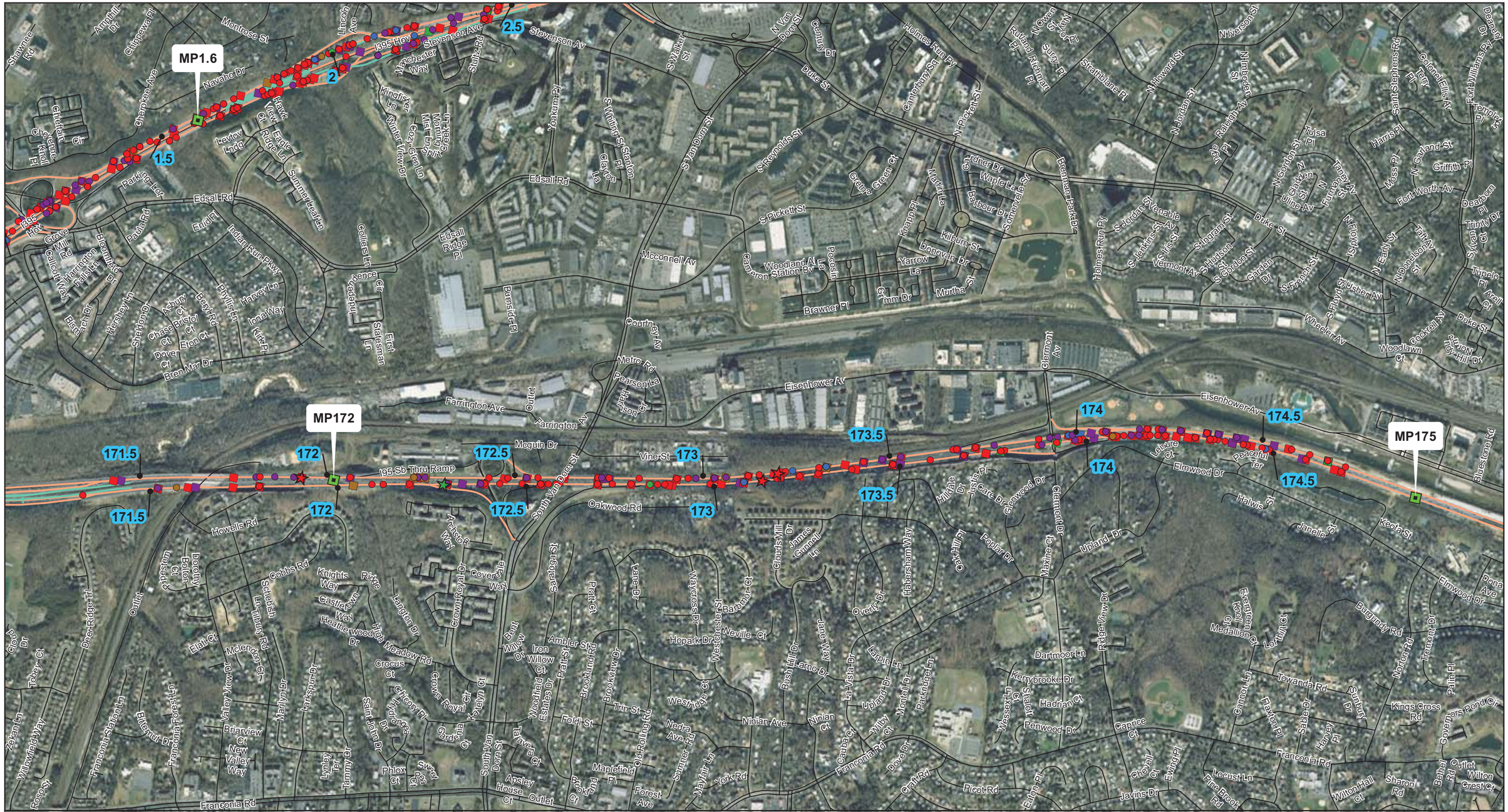
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 10 of 14

November 21, 2011



Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

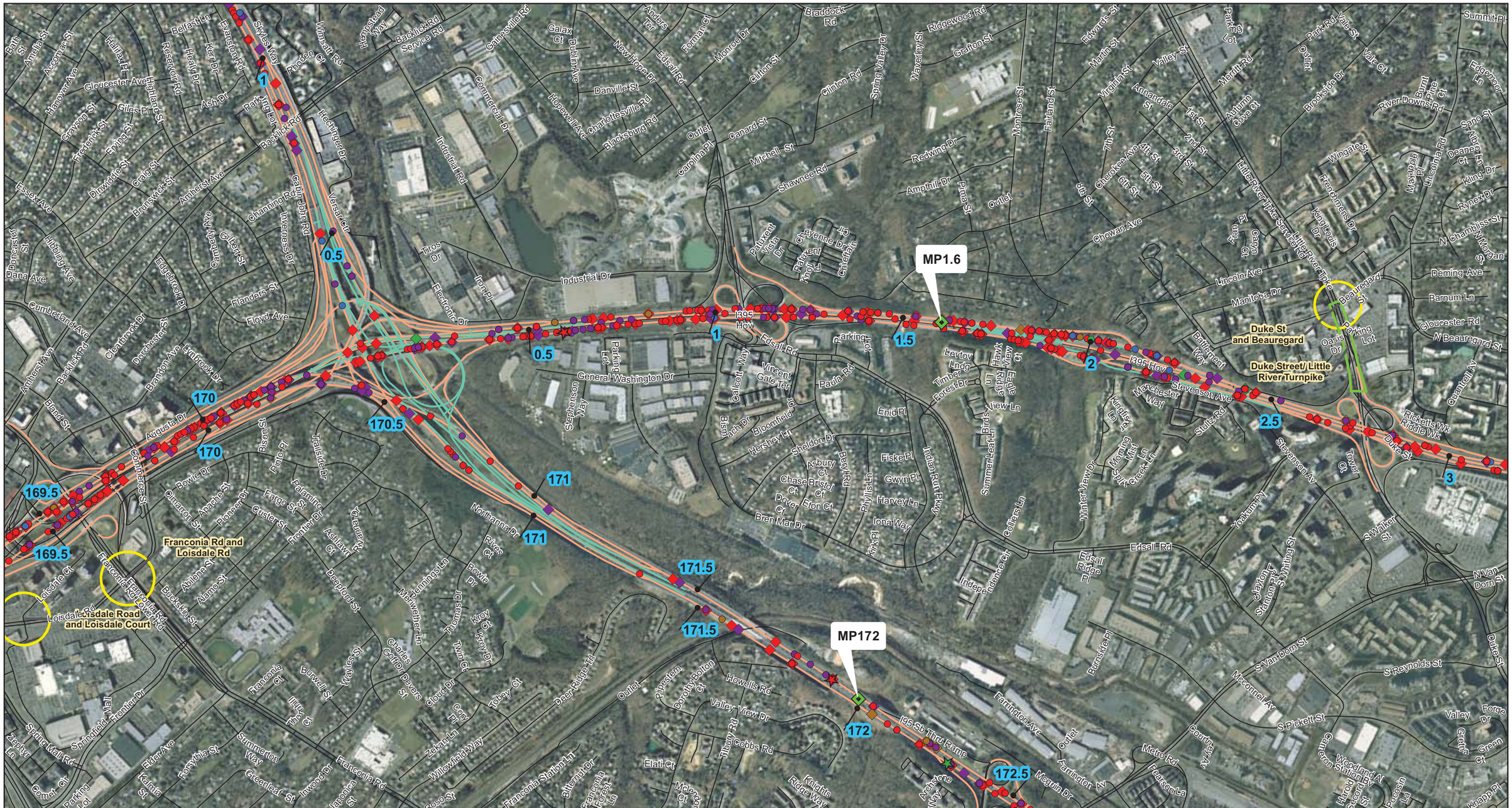
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 11 of 14

November 21, 2011



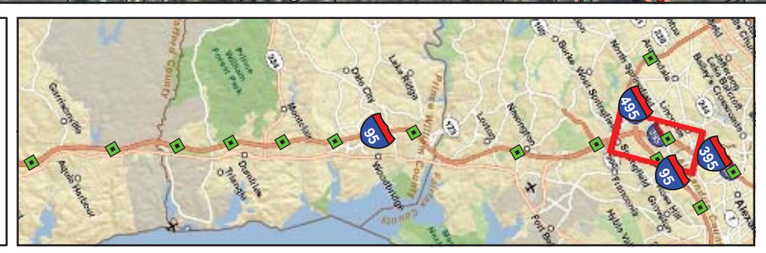
Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet



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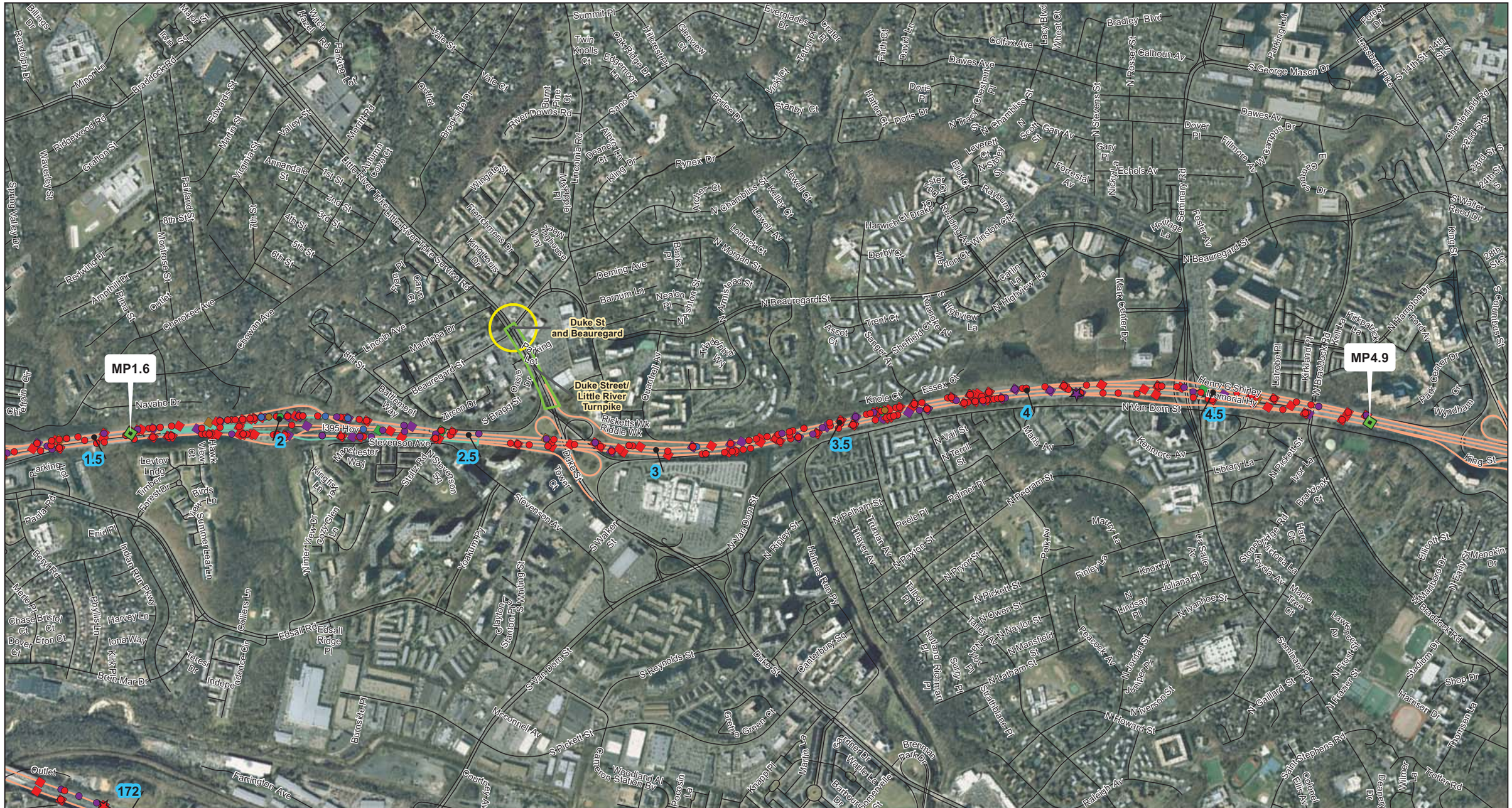
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 12 of 14

November 21, 2011



Crash Severity
- Fatal
- Serious Injury
- Minor Injury
- PDO

Collision Type
- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet

VDOT Virginia Department of Transportation

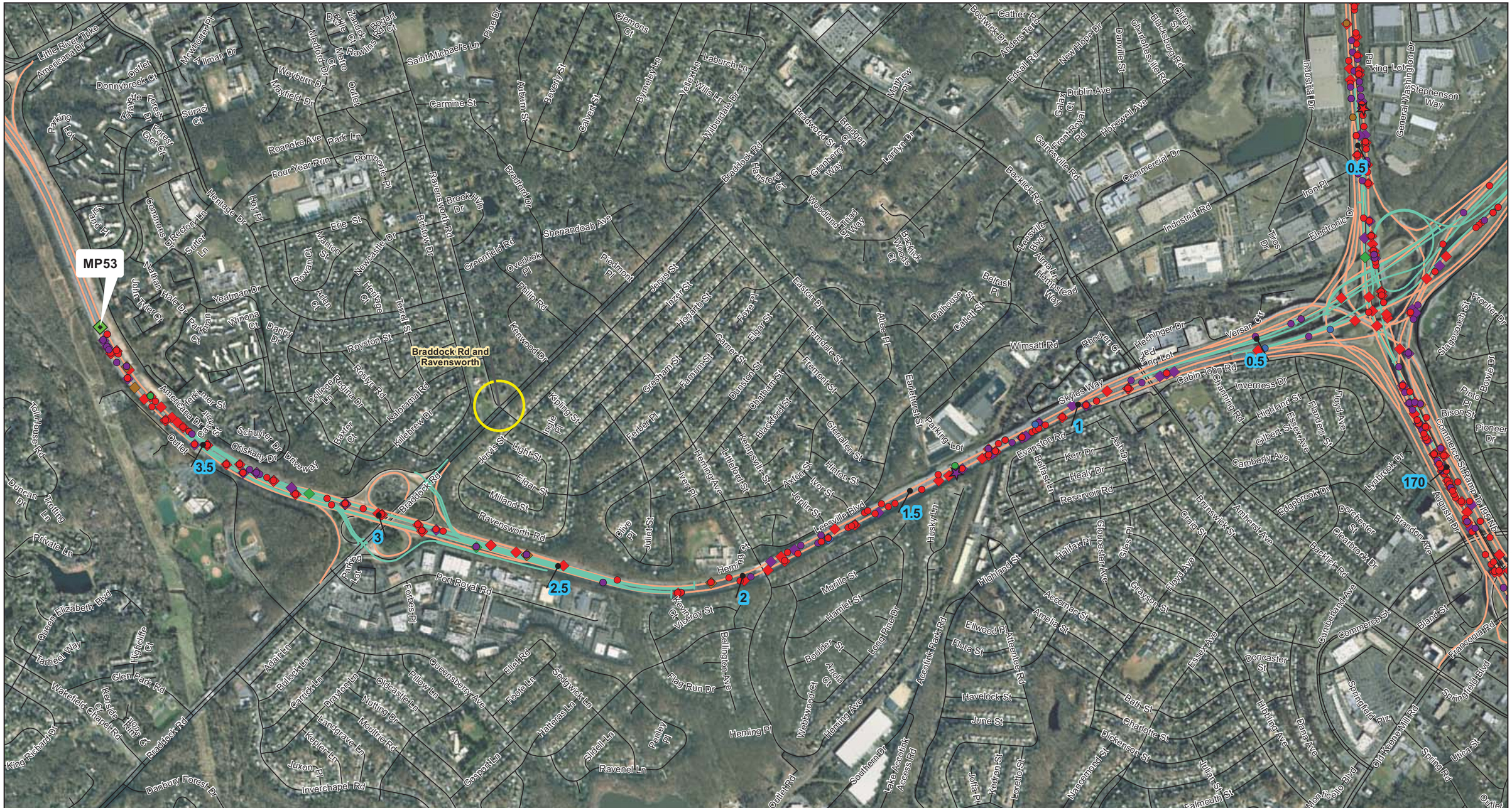
VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

Figure 10-1 Sheet 13 of 14

November 21, 2011



Crash Severity

- Fatal
- Serious Injury
- Minor Injury
- PDO

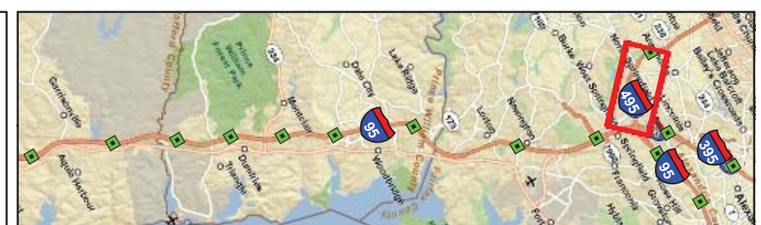
Collision Type

- Rear end and sideswipe same direction
- Angle
- Head on and sideswipe opposite direction
- Fixed object
- Non Collision
- Other and Unknown

- Segment Break Point
- Project Build Line
- Interstate
- Road
- 2009 5% Report Intersections
- 2009 5% Report Segments

N

0 600 1,200 Feet



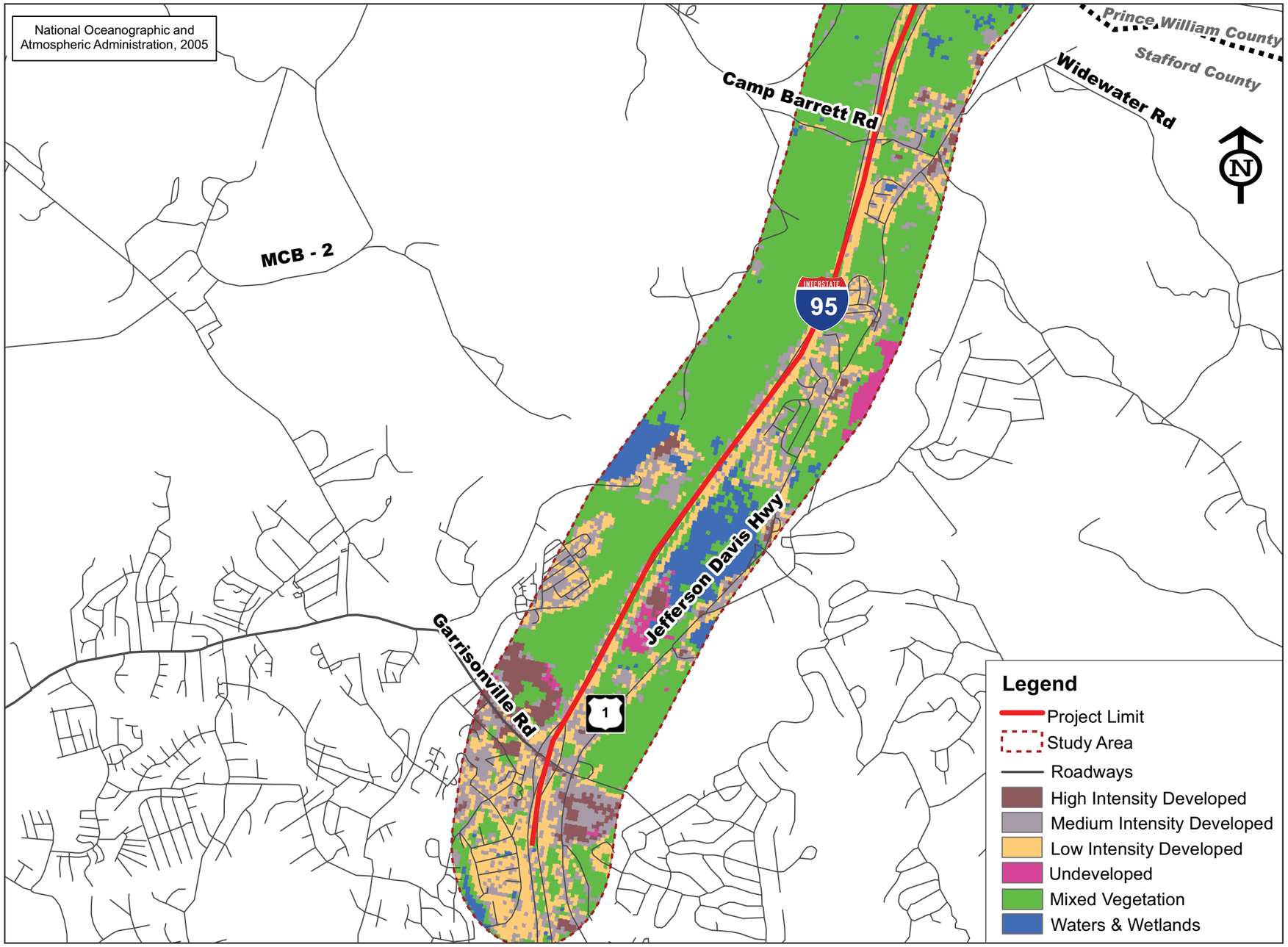
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES INTERCHANGE JUSTIFICATION REPORT

CRASH LOCATION, TYPE AND SEVERITY

November 21, 2011



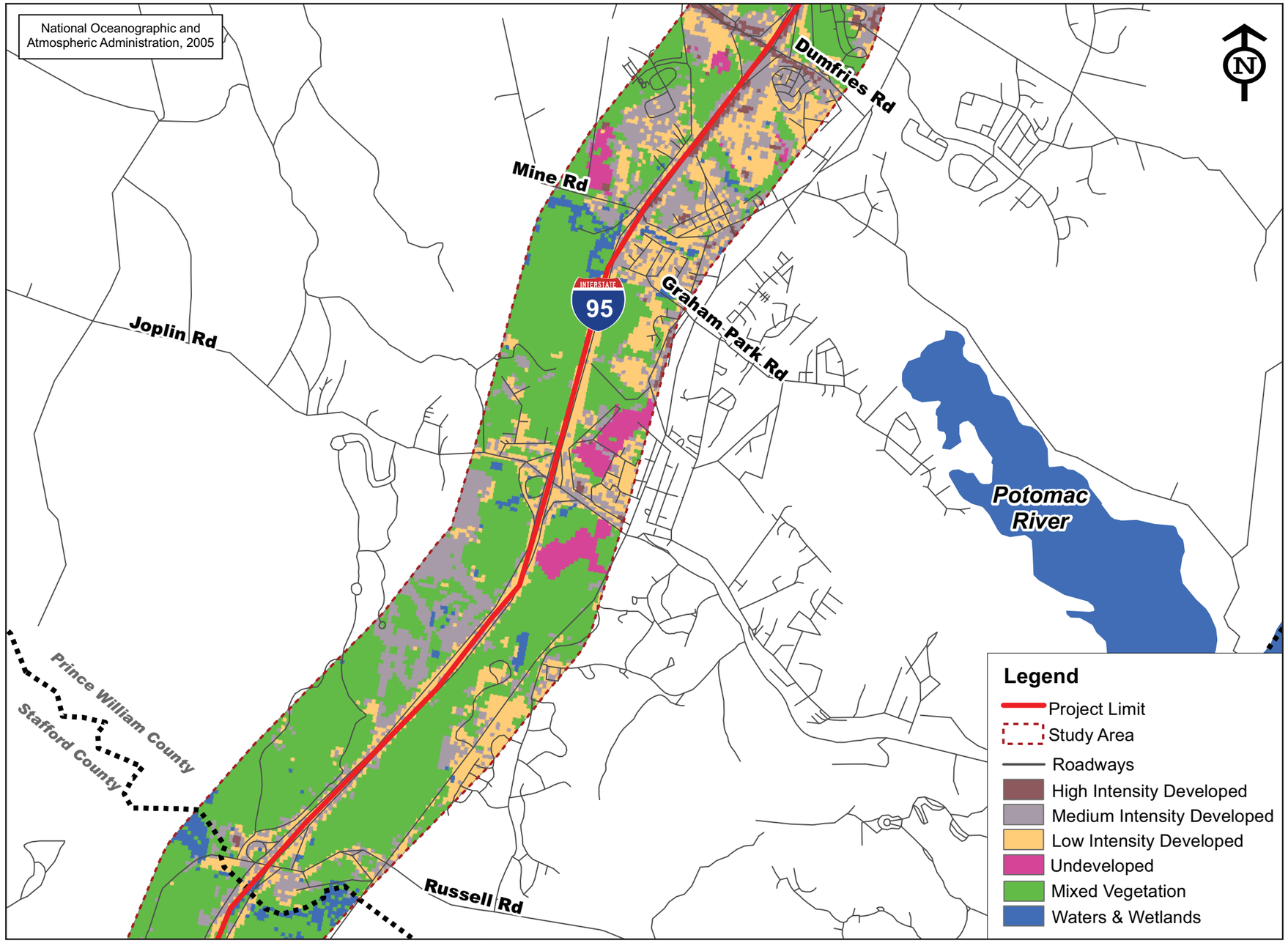
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1a **Scale:** 1" = 500' **Date:** November 21, 2011 ***FINAL***



VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1b **Scale:** 1" = 500' **Date:** November 21, 2011 ***FINAL***

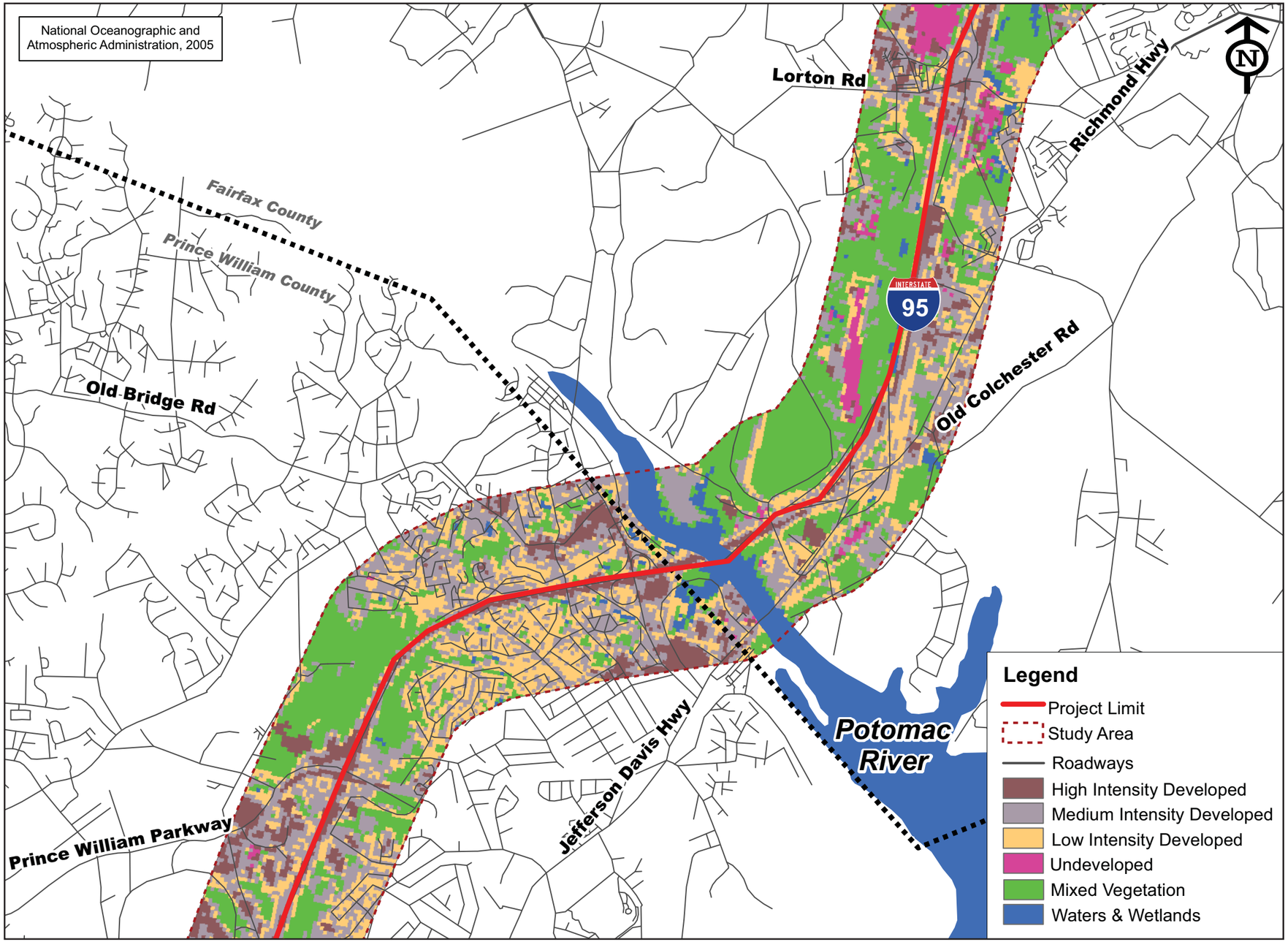
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1c **Scale:** 1" = 500' **Date:** November 21, 2011 *FINAL*



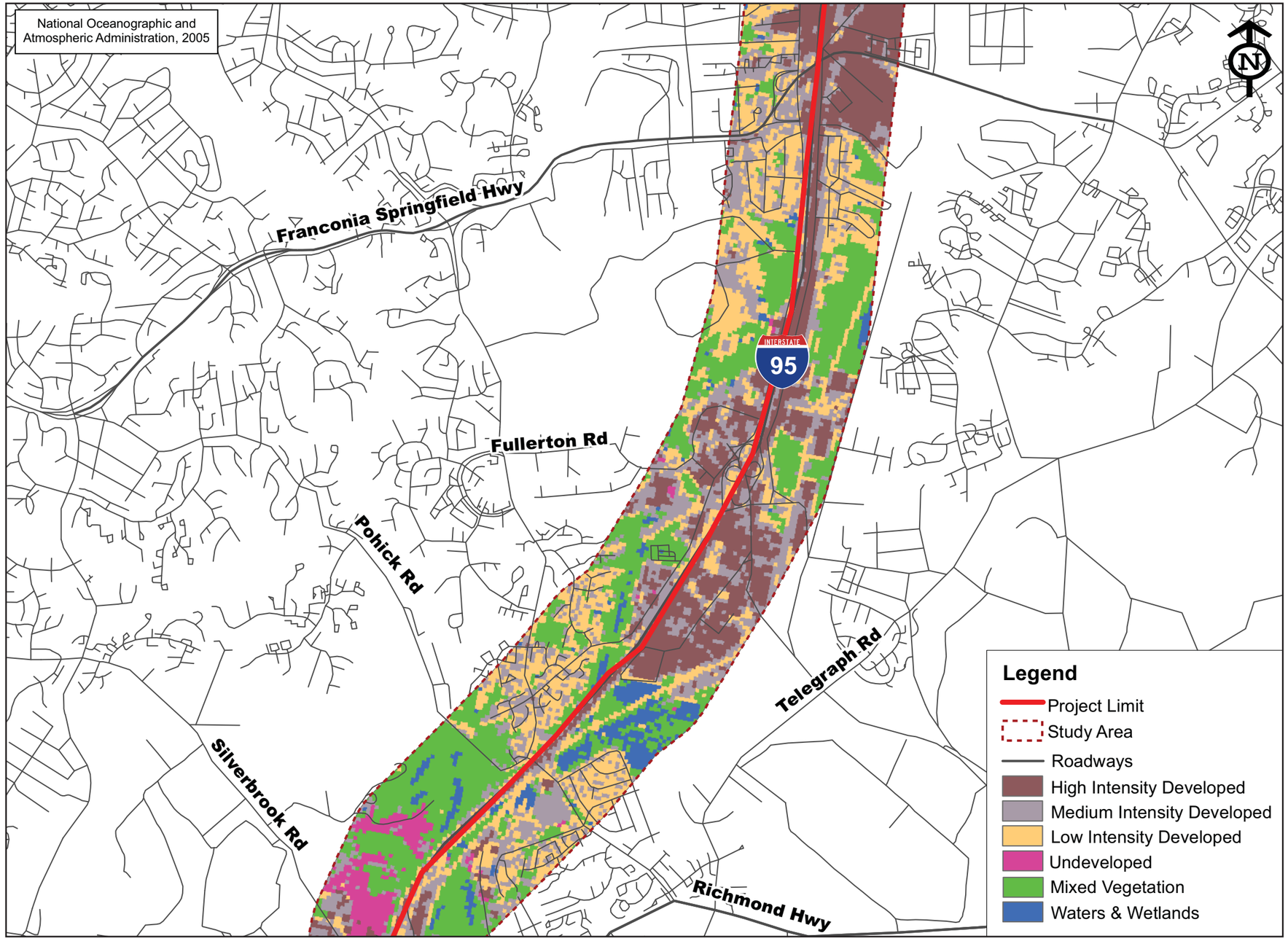
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1d **Scale:** 1" = 500' **Date:** November 21, 2011 *FINAL*



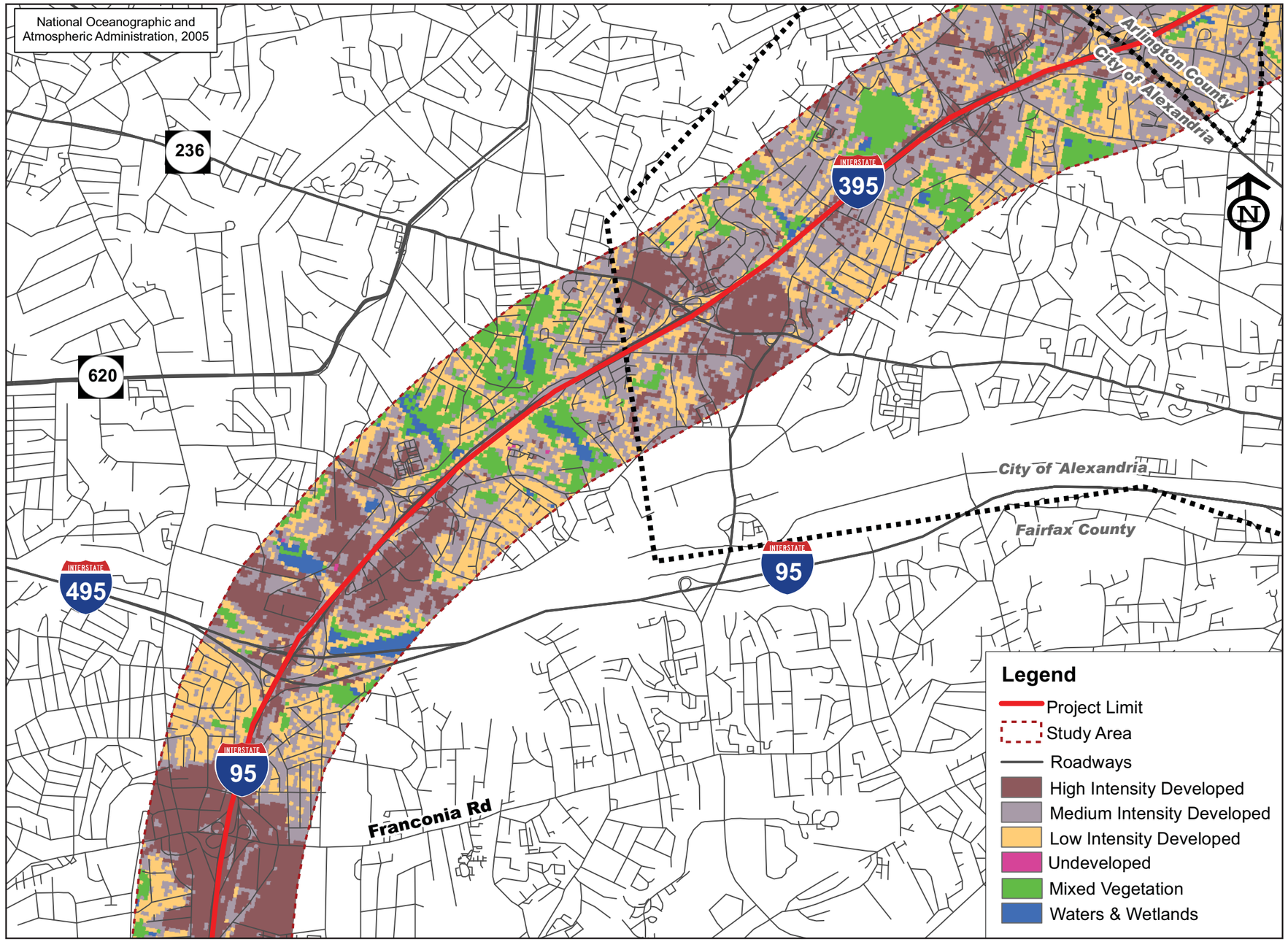
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1e **Scale:** 1" = 500' **Date:** November 21, 2011 ***FINAL***



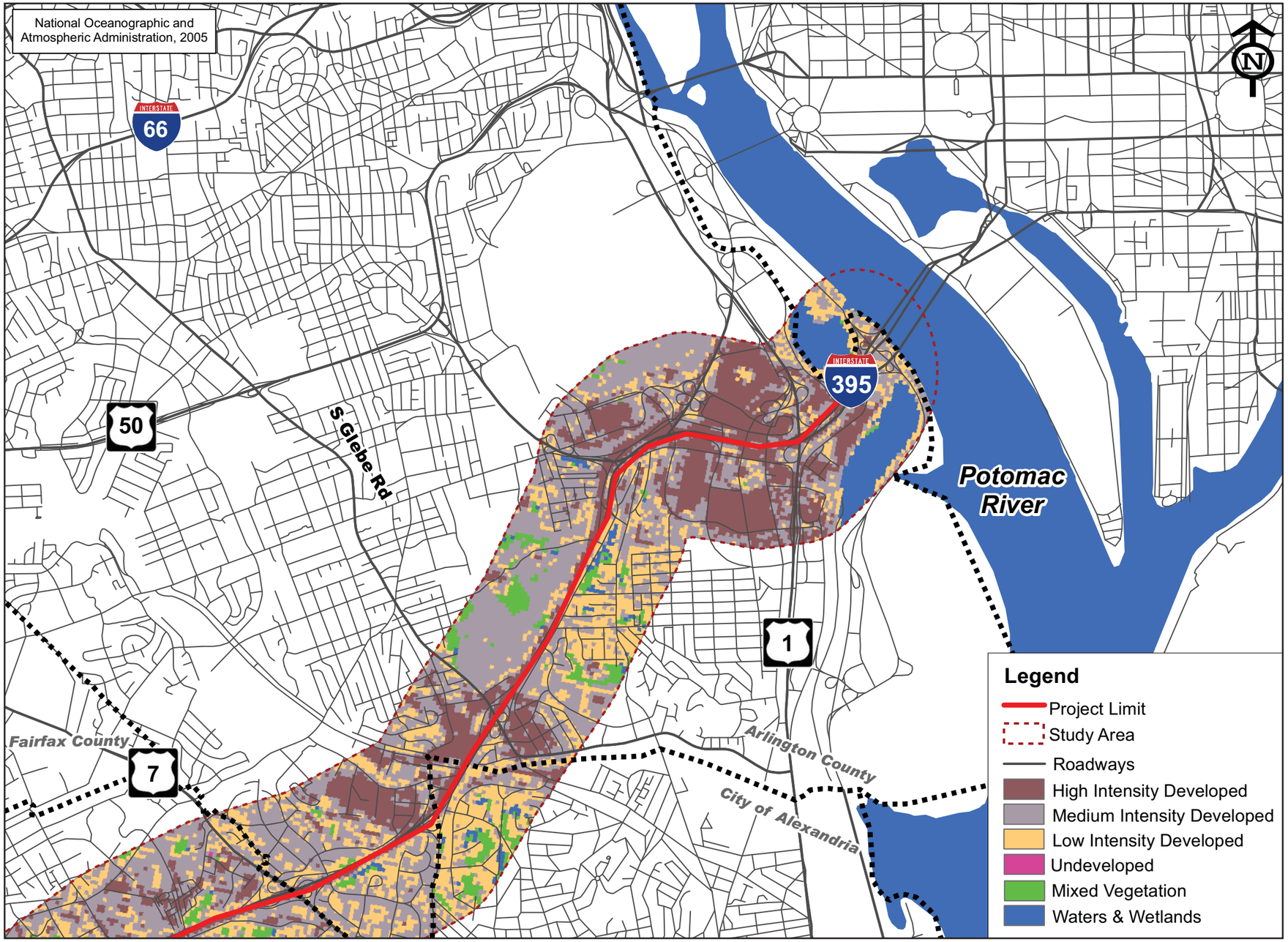
VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1f **Scale:** 1" = 500' **Date:** November 21, 2011 ***FINAL***



VDOT Virginia Department of Transportation

VIRGINIA MEGAPROJECTS

I-95 HOT/HOV LANES
INTERCHANGE JUSTIFICATION REPORT

Existing Land Use

Figure: 11-1g | Scale: 1" = 500' | Date: November 21, 2011 | FINAL