

*EXECUTION VERSION*

## **I-395 Project**

### **Exhibit C-3**

#### **Technical Requirements**

##### **Attachment 1.5a**

#### **Standards and Specifications**

## *EXECUTION VERSION*

The standards, special provisions and reference guides applicable for the Construction Period shall be the version of those documents as noted herein below or those in effect as of final issuance of RFP, including all supplements, errata, revisions and interims. Following the Work period, all subsequent design and construction must meet the standards current at the time the Work is performed. Groupings of standards are for ease of reference only and certain reference documents have been included. It is the responsibility of the Design-Builder to ensure that all relevant standards and specifications have been applied.

The Design-Builder must verify and use the latest version of the documents listed herein. The Design-Builder shall meet or exceed the minimum design standards and criteria.

### **A. Standards and References Documents**

#### **General**

1. AASHTO Guide Specifications for Highway Construction, 9<sup>th</sup> Edition
2. VDOT Materials Approved Lists
3. VDOT Construction Manual May 2016
4. VDOT Post Construction Manual (August 2014)
5. VDOT Construction Inspection Manual (January 2015)
6. VDOT's Minimum Requirements for Quality Assurance & Quality Control on Design-Build & Public-Private Transportation Act Projects January 2012
7. VDOT Traffic Engineering Design Manual (2014)
8. VDOT Right of Way Manual of Instructions, Third Edition (May 24, 2016)
9. VDOT Utility Manual of Instructions – Utility Relocation Policies and Procedures, Tenth Edition (Rev 10/1/2014)
10. VDOT Land Use Permit Regulations Guidance Manual (May 20, 2013)
11. VDOT Land Use Permit Regulations 24 VAC 30-151 (3/17/2010)
12. VDOT Policy Manual for Public Participation in Transportation Projects Nov 2016
13. VDOT Instructional & Information Memorandums (IIM) – All Divisions (as of date of RFP)
14. VDOT Road and Bridge Standards, Vol. 1 and Vol. 2 (2016), including all revisions as of the date of the RFP
15. VDOT Road and Bridge Specifications (2016) (Divisions II – VIII only)
16. VDOT Virginia Work Area Protection Manual (2011) (Revised April 2015)
17. 2010 ADA Standards for Accessible Design
18. Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, dated July 26, 2011

## *EXECUTION VERSION*

19. Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities dated July 23, 2004 and amended May 7, 2014
20. VDOT Policy for Integrating Bicycle and Pedestrian Accommodations, adopted March 18, 2004 by the CTB
21. Transportation Research Board Highway Capacity Manual (2010)
22. VDOT Manual of Instruction for Material Division (2016) to include all associated memoranda
23. VDOT CADD Manual (April 2016)
24. VDOT Highway Traffic Noise Impact Analysis Guidance Manual (July 14, 2015)
25. ISO 9001 Quality Management Systems September 2015
26. AASHTO Guide for Park-and-Ride Facilities, 2nd Edition
27. Virginia Uniform Statewide Building Code 2012 (Effective July 14, 2014)
28. Uniform Relocation Assistance and Real Property Act of 1970, as amended (as of date of RFP)
29. 1950 Code of Virginia, Titles 25.1 and 33.2, as amended (as of date of RFP)
30. Traffic Operations Analysis Tool Guidebook Version 1.0 (2015)
31. VDOT Asbestos Project Monitoring and Clearance Air Monitoring Procedures
32. VDOT Guidelines For Management Of Contaminated Soils Associated With Utility Installation And Maintenance Activities

### **Roadway Design**

1. VDOT State Bicycling Policy Plan (September 2011)
2. VDOT Road Design Manual (August 2016)
3. AASHTO A Policy on Geometric Design of Highways and Streets, 6<sup>th</sup> Edition (2011)
4. AASHTO – Roadside Design Guide, Fourth Edition, October 2011 (updated chapter 6)
5. AASHTO – A Policy on Design Standards Interstate System, 5<sup>th</sup> Edition (January 2005)
6. AASHTO – Guide for High-Occupancy Vehicle (HOV) Facilities, 3rd Edition (2004)
7. AASHTO – Guide for the Development of Bicycle Facilities, 4th Edition (2012)
8. AASHTO – Guide for the Planning, Design, and Operation of Pedestrian Facilities, July 2004

### **Geotechnical and Pavement Design**

1. VDOT Soil Design Parameters for Sound Barrier Walls, Retaining Walls and Non-Critical Slopes – April 14, 2011

## *EXECUTION VERSION*

2. VDOT I-395 SB Additional Through Lane, Fairfax County and City of Alexandria, Virginia, Geotechnical Engineering Data Report, Project 0395-029-015, C501, UPC No. 103316, July 6, 2016
3. AASHTO Guide for Design of Pavement Structures (Rigid Pavement and Flexible Pavement) (1993 Edition and subsequent revisions)
4. AASHTO Manual on Subsurface Investigations (1988)
5. VDOT Pavement Design Guide for Subdivision and Secondary Roads, 2014
6. VDOT Manual of Instruction for Material Division
7. VDOT Manual of Structure and Bridge Division, Volume V – Part 11 Geotechnical Manual for Structures
8. FHWA 23CFR626 - Part 626 Pavement Policy – April 7, 2011
9. Development and Implementation of Pavement Condition Indices for the Virginia Department of Transportation: Phase I – Flexible Pavements – September 2002

### **Structures**

1. VDOT Manual of Structure and Bridge Division, Vol. V Series (as of date of RFP)
2. AASHTO Guide Specification for LRFD Seismic Bridge Design, 2nd Edition, 2012; 2014 and 2015 Interim Revisions
3. AASHTO LRFD Bridge Design Specifications, 7<sup>th</sup> Edition, 2014; and VDOT Modifications
4. AASHTO Standard Specifications for the Design of Highway Bridges, 16th Edition, 1996; 1997 and 1998 Interim Specifications; and VDOT Modifications
5. AASHTO Construction Handbook for Bridge Temporary Works, 1st Edition, 1995, 2008 Interim
6. AASHTO Guide Design Specifications for Bridge Temporary Works, 1st Edition, with 2008 Interim Revisions
7. AASHTO Manual for Bridge Evaluation, 2nd Edition, 2011, 2013, 2014, and 2015 Interim Revisions
8. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, 1994 Edition
9. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, 6th Edition, 2013 with 2015 Interim.
10. AASHTO Guide Specifications for Structural Design of Sound Barriers – current edition
11. FHWA Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaires, and Traffic Signals (March 2005), FHWA NHI 05-036

*EXECUTION VERSION*

12. FHWA Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, December 1995, including Errata sheets and Revisions
13. FHWA 23CFR625 – Design Standards for Highways (December 1995, including Errata sheets and Revisions)
14. FHWA 23CFR630 Subpart B – Plans, Specifications, and Estimates
15. FHWA 23CFR650 - Subpart C – National Bridge Inspection Standards (“NBIS”)
16. Stage I - Plan Review Check List – August 2011 Draft
17. VDOT Structure and Bridge Stage I Report Summary Form
18. VDOT Structure and Bridge Division Stage I - Report Template – January 7, 2004 Draft
19. Stage II - Plan Review Check List – July 1, 2011 Draft
20. AASHTO LRFD Guide Specifications for Pedestrian Bridges, 2nd Edition with 2015 Interim Revisions; and VDOT Modifications
21. AASHTO LRFD Bridge Construction Specifications, 3rd Edition, with 2010, 2011, 2012, 2014, and 2015 Interim Revisions
22. AASHTO Guide for Protective Screening of Overpass Structures, 1990
23. AASHTO Guide Specifications for Seismic Isolation Design, 4th Edition
24. AASHTO Guide Specifications for Highway Bridge Fabrication with HPS 70W (HPS 485W) Steel, 2nd Edition, 2003.
25. AASHTO Manual for Bridge Element Inspection, 1st Edition, with 2015 Interim Revisions
26. AASHTO Guide Specifications - Thermal Effects in Concrete Bridge Superstructure, 1st Edition
27. AASHTO/AWS D1.5M/D1.5: 2010 Bridge Welding Code, 6th Edition, with 2011 and 2012 AASHTO Interim Revisions
28. AASHTO/NSBA Steel Bridge Collaboration Shop Detail Drawing Presentation Guidelines, G1.3 - 2002
29. ANSI/AWS D1.2/D1.2M: Structural Welding Code - Aluminum, current edition
30. ANSI/AWS D1.1/D1.1M: Structural Welding Code - Steel, current edition
31. gINT Manual
32. NCHRP Report 350 Recommended Procedures for the Safety Performance Evaluation of Highway Features
33. AASHTO Manual for Assessing Safety Hardware, 1st Edition
34. AASHTO/FHWA Joint Implementation Plan for the AASHTO Manual for Assessing Safety Hardware, 2009

## *EXECUTION VERSION*

35. NFPA 25 Standard for the inspection, Test and Maintenance of Water-Based Fire Protection Systems, 2014 Edition
36. NFPA 70 National Electrical Code, 2011 Edition
37. NFPA 502, Standard for Road Tunnels, Bridges, and other Limited Access Highways, 2011 Edition
38. VDOT Element Data Collection Manual, 2016
39. VDOT Memorandum – Asbestos Containing Materials on Bridges – October 23, 2009
40. Virginia Department of Transportation Asbestos Inspection Procedures, dated May 14, 2004

### **Drainage**

1. VDOT 2002 Drainage Manual (including current Errata Sheets) and revisions (Revised 7/2016)
2. Virginia Stormwater Management Handbook, Volume I & Volume II, (First Edition – 1999), Virginia Department of Conservation and Recreation
3. 2013 Virginia Stormwater Management Handbook, Second Edition
4. 2013 BMP Standards and Specifications
5. Virginia Erosion and Sediment Control Handbook (Third Edition – 1992), Department of Conservation and Recreation
6. FHWA Hydraulic Design Series Number 5 (HDS-5), Hydraulic Design of Highway Culverts, 2012
7. FHWA Hydraulic Design Series Number 6 (HDS-6), River Engineering for Highway Encroachments, 2001
8. FHWA Hydraulic Engineering Circular Number 9 (HEC-9), Debris Control Structures – Evaluation and Counter Measures, 2005
9. FHWA Hydraulic Engineering Circular Number 15 (HEC-15), Design of Roadside Channels with Flexible linings, Third Edition, 2005
10. FHWA Hydraulic Engineering Circular Number 14 (HEC-14), Hydraulic Design of Energy Dissipaters for Culverts and Channels, 2006
11. FHWA Hydraulic Engineering Circular Number 17 (HEC-17), Highways in the River Environment- Floodplains, Extreme Events, Risk, and Resilience, June 2016
12. FHWA Hydraulic Engineering Circular Number 18 (HEC-18), Evaluating Scour at Bridges, 2012
13. FHWA Hydraulic Engineering Circular Number 20 (HEC-20) Stream Stability at Highways, 2012
14. FHWA Hydraulic Engineering Circular Number 21 (HEC-21), Design of Bridge Deck Drainage Systems, 1993

## *EXECUTION VERSION*

15. FHWA Hydraulic Engineering Circular Number 22 (HEC-22), Urban Drainage Design Manual, 2009, Revised August 2013
16. FHWA Hydraulic Engineering Circular Number 23 (HEC-23), Bridge Scour and Stream Instability Countermeasures – Experience, Selection and Design Guidance, Third Edition, Volumes 1 and 2, 2009
17. FHWA Culvert Design for Aquatic Organism Passage (HEC-26), 2010
18. FHWA Culvert Inspection Manual, 1986
19. US Army COE, Hydrologic Modeling System (HEC HMS) Version 4.2
20. Virginia, Erosion and Sediment Control Law and Regulations,
21. FEMA National Flood Insurance Program Regulations
22. US Army COE, River Analysis System (HEC RAS), Version 5.0.1
23. The Virginia SWM Law dated 2015 (as listed in the Code of Virginia)
24. The Virginia SWM Regulations dated 2015 (as listed in the Virginia Administrative Code)

### **Traffic Control Devices and Lighting**

1. USDOT FHWA Standard Highway Signs
2. 2009 Manual of Uniform Traffic Control Devices (MUTCD), Revisions 1 and 2 (May 2012) and 2011 Virginia Supplement to MUTCD, Revision 1 (September 2013)
3. AASHTO Roadway Lighting Design Guide (2005)
4. ANSI/IESNA RP-8-00 Roadway Lighting
5. National Fire Protection Association NEC Standards, 2008
6. Virginia Standard Highway Signs, Revision 1, March 2015

### **Miscellaneous**

1. VDOT Survey Manual
2. VDOT Guardrail Installation Training Manual (GRIT), Revised February 2015

### **ITS**

1. Institute of Electrical and Electronics Engineer (IEEE) 802.3 Local and Metropolitan Area Networks
2. National Electric Manufacturers Association (NEMA) TS-4 Hardware Standards for Dynamic Message Signs (DMS) with NTCIP Requirements
3. IEEE 1512-2006 - IEEE Standard for Common Incident Management Message Sets for Use by Emergency Management Centers, IEEE 1512.1-2006 – IEEE Standard for Common Traffic Incident Management Message Sets for Use by Emergency Management Centers
4. National Transportation Communications for ITS Protocol (NTCIP)

*EXECUTION VERSION*

5. VDOT Northern Region Operations ITS Architecture
6. Capital Beltway I-495 HOT Lanes Program TMS to the VDOT NRO PSTOC ATMS External Interface Control Document (ICD), Version: 1.4 (Draft) – March 28, 2011

**B. Special Provision Copied Notes, Special Provisions, and Supplemental Sections**

1. VDOT Special Provision for Electronic Data Management System, June 30, 2016
2. VDOT Special Provision for Elastic Inclusion – July 12, 2016
3. VDOT Special Provision for Quality Assurance/Quality Control (QA/QC) for the Construction of Deep Foundation Systems for Design-Build and PPTA Contracts – December 10, 2009
4. VDOT Special Provision for Drilled Shafts Using Self-Consolidating Concrete for Design-Build and PPTA Contracts, April 15, 2013.
5. VDOT Special Provision for Lightweight Aggregate – May 16, 2011
6. VDOT Special Provision for Soldier Pile Retaining Walls – July 6, 2016
7. VDOT Special Provision for Sound Barrier Walls/Architectural Finishes – June 21, 2016
8. VDOT Special Provision for Hydraulic Cement Concrete Operations for Massive Construction – March 3, 2010
9. VDOT Special Provision for Asbestos Removal for Road Construction Demolition Projects – July 12, 2016
10. VDOT Special Provision for Construction Noise Control – July 20, 2016
11. Northern Region Special Provisions for Traffic Signal Installation, Revised – May 4, 2011
12. Virginia Department of Transportation Special Provision for Design-Build Tracking (DBT) Numbers – June 4, 2015
13. VDOT Special Provision for Reflection Cracking Retardant Material (English Units) – March 22, 2010
14. VDOT Special Provision for Sealing Cracks in Asphalt Concrete Pavement or Hydraulic Cement Concrete Pavements (Prior to Overlay) – October 19, 2014
15. VDOT Special Provision for Patching Hydraulic Cement Concrete Pavement – February 2, 2010
16. VDOT Special Provision for Thin Hot Mix Asphalt Concrete Overlay – July 12, 2016
17. VDOT Special Provision for Undersealing Portland Cement Concrete Pavement – January 3, 1995
18. VDOT Special Provision for Filling and Sealing Pattern Cracks in Concrete Decks and Overlays – July 12, 2016



*EXECUTION VERSION*

19. VDOT Special Provision for Shotcrete and Permanent Concrete Facing – June 6, 2011
20. VDOT Special Provision for Secant Pile or Tangent Pile (Drilled Shaft) Walls – June 8, 2011
21. VDOT Special Provision for Permanent Soil Nails – June 7, 2011
22. VDOT Special Provision for Low Density Cementitious Fill – June 24, 2011
23. VDOT Special Provisions for Mechanically Stabilized Earth Walls With Low Density Cementitious Fill (LDCF) – June 24, 2011
24. VDOT Special Provision for Densified Aggregate Piers for Foundation Reinforcement –June 24, 2011
25. VDOT Project-Specific Special Provision for Densified Cement-Treated/Grouted Aggregate Piers for Foundation Reinforcement – June 10, 2011
26. VDOT Special Provision for Crushed Hydraulic Cement Concrete (CHCC) as Subbase and Aggregate Base Material, October 1, 2015
27. VDOT Special Provision for Needle-Punched, Non-Woven Geotextile Stabilization Fabric, October 1, 2015
28. VDOT Special Provision for Dynamic Pile Testing for Friction Piles for LRFD (S403B01-0714) for Design-Build and PPTA Projects –February 7, 2014
29. VDOT Special Provision for Dynamic Pile Testing for End Bearing Piles for LRFD (S403B01-0714) for Design-Build and PPTA Contracts –February 7, 2014
30. VDOT Special Provision for Wave Equation Analysis for LRFD for Design-Build and PPTA Contracts – February 7, 2014
31. VDOT Special Provision for Exposed Aggregate Finish – July 12, 2016
32. VDOT Special Provision for Architectural Finish, Concrete Form Liners And Color Stain Coating – July 6, 2016
33. VDOT Special Provision for Architectural Treatment – February 27, 2012
34. VDOT Special Provision for Mechanically Stabilized Earth Walls (Segmental Block Facing) for Design-Build and PPTA Contracts – September 30, 2015
35. VDOT Special Provision for Mechanically Stabilized Earth Walls (Concrete Panel Facing) for Design-Build and PPTA Contracts – April 8, 2016
36. VDOT Special Provision for Micropiles for Design-Build and PPTA Projects, January 20, 2010
37. VDOT Special Provision for MSE Walls (Modular Cantilever Facing), December 10, 2009
38. VDOT Special Provision for Structure Demolition – July 20, 2016
39. VDOT Special Provision for T-Wall Retaining Wall System for Design-Build and PPTA Contracts, December 10, 2009

*EXECUTION VERSION*

40. VDOT Special Provision for Removal of Asbestos from Bridge Structures For Design-Build and PPTA Contracts, March 18, 2009
41. VDOT Special Provision for Asbestos-Containing Soil - February 2, 2000
42. VDOT Special Provision for Concrete Surface Color Coating – July 2008
43. VDOT Special Provision for Metallization of Ferrous Metal Structures – July 2008
44. VDOT Special Provision for Asbestos Removal And Neshap-Related Demolition Requirements For Structures On Design-Build Projects, June 22, 2009
45. VDOT SPCN for Waterproofing Coating, October 28, 2014
46. VDOT Special Provision for Inspection of Structures For Asbestos Containing Materials (ACM) On Design-Build Projects, June 22, 2009
47. VDOT Special Provision for Turbidity Curtain – January 14, 2008
48. VDOT Special Provision for Removal or Connection of Asbestos Cement Pipe – July 2008
49. VDOT SPCN Dismantling and Removing Existing Structures or Removing Portion of Existing Structures – August 5, 2008
50. VDOT Special Provision for Intelligent Transportation Systems– Junction Boxes – August 26, 2013
51. VDOT Special Provision for Intelligent Transportation Systems– Dynamic Message Signs – September 6, 2013
52. VDOT Special Provision for Light Emitting Diode (LED) Roadway Luminaires – July 23, 2015
53. VDOT Special Provision for Uninterruptible Power Supply – May 6, 2015
54. VDOT Special Provision For Phase I And Phase II Environmental Site Assessments For Design-Build Projects – June 25, 2013
55. VDOT Special Provision Copied Note-Demolition Notification for Structures not Requiring Asbestos Removal – June 25,
56. VDOT Special Provision for Glare Screens– October 25, 2013

**100**

1. VDOT Special Provision Volatile Organic Compound (VOC) Emissions Control Areas– December 18, 2013
2. VDOT Special Provision for Section 107.15 – February 18, 2014
3. VDOT Special Provision for Section 107.15 Use of Small, Women-Owned, and Minority-Owned Businesses– February 18, 2014
4. VDOT Special Provision for Local and Veteran Hiring Program for Design-Build Projects – September 2, 2015

## EXECUTION VERSION

### **300**

1. VDOT Special Provision for Flowable Backfill – March 11, 2010
2. VDOT Special Provision for Rideability – January 22, 2015
3. VDOT Special Provision Copied Notes c302–03100–00 Section 302.03(b) Precast Drainage Structures – July 12, 2016
4. VDOT Special Provision for Pipe Rehabilitation – July 30, 2015
5. VDOT Special Provision for Pipe Replacement – February 28, 2013
6. VDOT Special Provision for Hot Mix Asphalt Patches – December 28, 2006a
7. VDOT Special Provision for Sawing and Sealing Joints In Asphalt Overlays Over Jointed Concrete Pavement – October 31, 2008a

### **700**

1. VDOT Special Provision for TYPE B, CLASS VI PAVEMENT LINE MARKING TAPE – October 21, 2011
2. VDOT Special Provision for Preformed Thermoplastic Pavement Markings - November 29, 2011b

## **C. Additional Reference Documents**

1. FHWA Geotechnical Engineering Circular No. 2 - Earth Retaining Systems, FHWA-SA-96-038 – Feb 1997
2. FHWA Geotechnical Engineering Circular No. 4 - Ground Anchors and Anchored Systems, FHWA-IF-99-015, 1999
3. FHWA Geotechnical Engineering Circular No. 7 - Soil Nail Walls – Reference Manual, FHWA-NHI-14-007 – February 2015
4. FHWA Permanent Ground Anchors, Volume 1, Final Report, FHWA-DP-90-068 – April 1990
5. FHWA Permanent Ground Anchors, Volume 2, Field Demonstration Project Summaries, FHWA-DP-90-068, April 1990
6. FHWA Geotechnical Engineering Circular No. 6, Shallow Foundations, September 2002, FHWA-SA-02-054
7. FHWA Manual of Subsurface Investigations, May 2002, FHWA NHI-01-031
8. FHWA Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes Volumes I & II, November 2009, FHWA-NHI-10-024
9. FHWA Drilled Shafts Construction Procedures and LRFD Design Methods, May 2010, FHWA NHI-10-016
10. FHWA Manual for Design & Construction of Soil Nail Walls, FHWA-SA-96-069R, October 1998

*EXECUTION VERSION*

11. FHWA Soil Nailing Field Inspectors Manual-Soil Nail Walls, FHWA-SA-93-068 – April 1994
12. FHWA The Osterberg Cell for Load Testing Drilled Shafts And Driven Piles, FHWA-SA-94-035, 1994
13. Load and Resistance Factor Design (LRFD) For Highway Bridge Superstructures ( December 2003), FHWA-NHI-08-048
14. Load and Resistance Factor Design (LRFD) for Highway Bridge Substructures (May 2001), FHWA-NHI-08-036
15. Load and Resistance Factor Design (LRFD) For Highway Bridge Superstructures - Examples (April 2007), FHWA-NHI-08-049
16. LFRD for Highway Bridge Substructures and Earth Retaining Structures (Jan 2007), FHWA-NHI-05-095
17. Ground Improvements Reference Manual Volume I, FHWA-NHI-06-019 (as of date of RFP)
18. Ground Improvements Reference Manual Volume II, FHWA-NHI-06-020 (as of date of RFP)
19. Earth Retaining Structures (RM), FHWA-NHI-07-071, June 2008
20. Micropile Design and Construction Reference Manual (December 2005), FHWA-NHI-05-039
21. Mechanically Stabilized Earth Walls And Reinforced Soil Slopes - Design And Construction Guidelines, FHWA-NHI-00-043, March 2001
22. VDOT NRO Change and Clearance Interval Data Collection Processing Best Practices – July 17, 2015
23. VDOT NRO TEP – Clearance Intervals – February 28, 2013  
VDOT Preliminary Sub Example (as of date of RFP)
24. VDOT NRO TEP – Pedestrian Timing at Traffic Signals, December 8, 2011
25. VDOT NRO TEP – Pedestrians Accommodations at Traffic Signals, August 7, 2014
26. VDOT Traffic Calming Guide for Local Residential Streets, 2002 (Revised July, 2008)
27. VDOT Detector Placement, January 13, 2005
28. VDOT NRO TEP – Pavement Marking at Intersections, July 20, 2012
29. VDOT NRO TEP – Hatch Marks on Non-Limited-Access Roadways, April 17, 2015
30. VDOT NRO TEP – Yellow Change and Red Clearance Intervals, January 7, 2013
31. VDOT NRO – 2015 Bicycle Marking Reference Guide (as of date of RFP)
32. American Water Works Association Standards (as of date of RFP)
33. FHWA Hydrology Design Series No. 2, Highway Hydrology, October 2002

## EXECUTION VERSION

34. FHWA Hydraulic Design Series No. 3, Design Charts for Open Channel Flow, August 1961
35. FHWA Hydraulic Design Series No. 4, Introduction to Highway Hydraulics, June 2008
36. FHWA Hydraulic Design Series No. 5, Hydraulic Design of Highway Culverts June 2012
37. FHWA Hydraulic Engineering Circular No. 11, Design of Riprap Revetment, March 1989
38. USDA, NRCS, Urban Hydrology for Small Watersheds, TR-55, June 1986
39. FHWA - A Guide for HOT Lane Development, March 2003
40. ITE TMDD - Traffic Management Data Dictionary and Message Sets for External TMC Communication (TMDD and MS/ETMCC) (as of date of RFP)
41. VDOT DBE Program, July 2016
42. Virginia Department of Transportation CII/SSI Policy Guide For Employees, Vendors, Contractor or other Persons Accessing VDOT's CII/SSI – March, 2006 (Interim Revision November, 2009)
43. DMS Upgrade and Expansion Program *Concept of Operations*, February 25, 2008
44. VDOT NRO Vehicle Detector Master Plan, June 13, 2008
45. VDOT NRO CCTV Master Plan, June 2008
46. VDOT NRO CCTV Concept of Operations, June 2008
47. VDOT NRO Vehicle Detector Concept of Operations, May 14, 2008
48. FHWA 23 CFR PART 940—Intelligent Transportation System Architecture and Standards – January 8, 2001
49. VDOT ITS Projects – Systems Engineering and Architecture Compliance (Rule 940) Checklist (as of date of RFP)
50. Virginia Megaprojects Program Lane Closure Policy and Procedures, June 2009 Revised April 23, 2012

### WMATA

1. WMATA Adjacent Construction Project Manual - September 21, 2015, Revision 5a
2. WMATA – Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems – Release 9, Revision 2 - August 2014
3. WMATA – Standard Specifications - Release 9, Revision 3a - 2014
4. WMATA – Standard Drawings – 2001
5. WMATA – Reference Plans – Assorted (as of date of RFP)
6. WMATA 2014 CAD Standards – November 2014
7. WMATA Metrorail Safety Rules and Procedures Handbook - Sept 2010

*EXECUTION VERSION*

8. WMATA Construction Safety and Environmental Manual – March 2013
9. WMATA Safety and Security Certification Plan – March 2015
10. Americans with Disabilities Act (ADA) Standards for Transportation Facilities – 2006