Attachment 1.5a

To the Technical Requirements

Standards, Specifications, Guides, Special Provisions, and Special Provision Copied Notes
The following standards, specifications, and guides; Special Provisions; and Special Provision Copied Notes shall be used to develop and maintain the Project as follows:

1. Work Period Activities: Published version stated below. If publication date is not stated below, then the most current published version (in print or electronic media) as of the Agreement Date shall apply. In addition, all supplements, errata, revisions, and interims for those publications, whether published prior to or after the Agreement Date, shall apply.

2. Operating Period Activities: Most current published version (in print or electronic media) at the time the Work is performed. In addition, all supplements, errata, revisions and interims for those publications that are in effect at the time of the Work shall apply.

Groupings of Standards and Specifications are for ease of reference only and do not reflect order of precedence. The Concessionaire shall verify and use the latest versions of these documents as applicable at the time of the activity. If an applicable standard, specification, and reference is not herein listed, the VDOT Project Manager shall identify the pertinent standard, specification or reference and provide to the Concessionaire.

For roadways, traffic control devices, drainage facilities, utilities, and other items constructed as part of the Project that are not to be owned, operated or maintained by the Department: design, construction and operational activities that impact such facilities shall be subject to the standards, specifications, policies, etc. established by the owner/operator/maintainer unless a written exception is granted by the Department.

Standards, Specifications and Guides

American Association of State Highway and Transportation Officials (AASHTO)

A Policy on Design Standards Interstate System, Jan 2005
Fracture Critical Non-Redundant Steel Bridge Members
Guide for Protective Screening of Overpass Structures (1990)


Guidelines for Subsurface Investigations

Guide Specifications for Structural Design of Sound Barriers


Maintenance Manual


Minimum Requirements for Design Level Geotechnical Investigations, 2004

National Transportation Communications for ITS Protocol


Standard Specification for Stainless Steel Clad Deformed and Plain round Steel Bars for concrete Reinforcement (MP 13M 13-04)
Architectural and Transportation Barriers Compliance Board

Americans with Disabilities Act Accessibility Guidelines for State and Local Government Facilities

Commonwealth of Virginia

Construction Code, 2003


Erosion and Sediment Control Law and Regulations, July 2006

Public-Private Transportation Act Projects, August 2007 (revised July 2008)

Storm Water Management Law and Regulations, July 2006

Virginia Stormwater Management, 1st edition 1999, Department of Conservation and Recreation

Other State codes not listed above

Federal Emergency Management Agency (FEMA)

National Flood Insurance Program Regulations

Federal Highway Administration (FHWA)

Bridge Maintenance Training Manual

Culvert Inspection Manual, 1986

Culvert Repair Practices Manual, Volumes I and II

Design of Bridge Deck Drainage, 1993 (FHWA Publication HEC 21)

Drilled Shafts – Construction Procedures and Design Methods, FHWA-IF-99-025, August 1999
Earth Retaining Structures (RM), FHWA-NHI-07-071

Geotechnical Engineering Circulars

No. 2 - Earth Retaining Systems, FHWA-SA-96-038, 1996
No. 4 - Ground Anchors and Anchored Systems, FHWA-IF-99-015, 1999
No. 5 – Evaluation of Soil and Rock Properties, FHWA-IF-02-034, 2002
No. 7 - Soil Nail Walls, FHWA-IF-03-017, 2003


Hydraulic Design Series

No. 1, Hydraulics of Bridge Waterways, 1978
No. 2, Highway Hydrology, 2002
No. 3, Design Charts for Open Channel Flow, 1961
No. 4, Introduction of Highway Hydraulics, 2001
No. 5, Hydraulic Design of Highway Culverts 2005

Hydraulic Engineering Circulars (HECs):

HEC-11, Design of Riprap Revetment, 1989
HEC-14, Hydraulic Design of Energy Dissipaters for Culverts and Channels, 2006
HEC-15, Design of Roadside Channels with Flexible Linings, 2005
HEC-17, The Design of Encroachments on Flood Plains Using Risk Analysis, 1981
HEC-18, Evaluating Scour at Bridges, 2001
HEC-20, Stream Stability at Highways, 2001
HEC-21, Design of Bridge Deck Drainage Systems, 1993
HEC-23, Bridge Scour and Stream Instability Countermeasures – Experience, Selection and Design, 2001
LFRD for Highway Bridge Substructures and Earth Retaining Structures (Jan 2007), FHWA-NHI-05-095

Highway Bridge Superstructures (April 2007) Examples, FHWA-NHI-08-049


Mechanically Stabilized Earth Walls and Reinforced Soil Slopes - Design and Construction Guidelines (March 2001), FHWA-NHI-00-043

Manual of Uniform Traffic Control Devices (MUTCD), 2003

Micropile Design and Construction Reference Manual (December 2005), FHWA-NHI-05-039


National Cooperative Highway Research Program (NCHRP) Test Reports


Soil Nailing Field Inspectors Manual-Soil Nail Walls, FHWA-SA-93-068, 1993

Standard Highway Signs

Technical Advisories (as applicable)

The Osterberg Cell for Load Testing Drilled Shafts and Driven Piles, FHWA-SA-94-035, 1994

**Institute of Electrical and Electronics Engineer (IEEE)**

802.3 Local and Metropolitan Area Networks


Institute of Transportation Engineers

ITE TMDD - Traffic Management Data Dictionary and Message Sets for External TMC Communication (TMDD and MS/ETMCC)

International Organization for Standardization

ISO 9001 Quality Management Systems 2000

Multi-Organizational

National Transportation Communications for ITS Protocol (NTCIP)

National Fire Protection Association

National Electric Code (NEC), 2005

National Electric Manufacturers Association (NEMA)

TS-4 Hardware Standards for Dynamic Message Signs (DMS) with NTCIP Requirements

Transportation Research Board of the National Academies


U.S. Access Board

Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities dated July 23, 2004 and amended August 5, 2005

Revised Draft Guidelines for Accessible Public Rights of Way dated November 23, 2005
U.S. Army Corps of Engineers

Hydrologic Modeling System (HEC HMS)

River Analysis System (HEC RAS)

Virginia Department of Transportation (VDOT)

Asbestos Project Monitoring and Clearance Air Monitoring Procedures, dated September 16, 2003

Asbestos Inspection Procedures, September 16, 2003

Asset Management/Maintenance Performance Tree Trimming Specification

Asset Management/Maintenance Program Manual


Construction Inspection Manual (December 2001)


Critical Infrastructure Information and Sensitive Security Information (CII/SSI) Policy, November 1, 2004

DBE Program, March 15, 2007

Drainage Manual, 2002

Drainage Manual Errata Sheets

Guardrail Installation Training Manual (GRIT), February 2006

Guidelines for 1993 AASHTO Pavement Design, Revised – May 2003


Guidelines for Steel Box Pier Caps – draft – June 25, 2003

Hydraulic Design Advisories (as of August 1, 2008)

Instructional & Information Memorandums (I&IM), All Divisions (as of August 1, 2008)
Interim Agreement for Emergency Response between VDOT, VDEQ, & VDEM, May 12, 2005 as updated or amended

Land Use Permit Manual

Maintenance Rating Program Manual

Manual of Instruction for Material Division


Memorandum of Agreement with the Va. Department of Motor Vehicles (maintenance)


Minimum Standards of Entrances to State Highways, 2003

Modifications (per VDOT Structure and Bridge Division IIM-SB-80) to the AASHTO LRFD Bridge Design Specifications, 4th Edition (2007, including the 2008 Interims)


Nutrient Management Plan

Procedures for Inventory and Inspection of Traffic Control Device Structures

Policy for Integrating Bicycle and Pedestrian Accommodations

Policy Manual for Public Participation in Transportation Projects (updated January 2007)

Post Construction Manual (Updated July 2007)

Right of Way Division Manuals, Vol. I (July 1999) and II (November 2003)

Road and Bridge Specifications (2007), including the Revisions to the Road and Bridge Specifications,

Road and Bridge Standards, Vol. 1 and Vol. 2 (2001)

Road Design Manual (all revisions as of August 2008)

Security Policy, November 1, 2004

Statewide Emergency Preparedness Guidelines

State Noise Abatement Policy
Structures and Bridge Division Instructional and Information Memoranda
Traffic Calming Guide for Local Residential Streets, 2002
Traffic Engineering Design Manual
Traffic Engineering Memoranda
Tree Trimming Policy
VDOT/VTCA/FHWA Approved Training Manual
Virginia Supplement to MUTCD
Virginia Traffic Manual
Virginia Work Area Protection Manual, 2005
Water Quality Structure Maintenance Manual (Bay Saver Separation System Maintenance Manual), (inspection only)

Special Provisions
to the
VDOT Road and Bridge Specifications

General
Asbestos Removal for Road Construction Demolition Projects, April 25, 2001
Construction Noise Control, June 28, 2007
Density Control of Embankments and Backfill, Revised – November 26, 2006
Design-Build Tracking (DBT) Numbers – February 8, 2008
Dynamic Pile Testing for Friction Piles, November 13, 2008
Drilled Shafts, October 2, 2007
Flowable Backfill, July 9, 2002 (S302A0B)
Guide Special Provision for Drilled Shafts, October 2, 2007
Reflection Cracking Retardant Material (English Units) (June 9, 1998)
Reinforced Earth Walls, July 5, 2007
Sealing Cracks in Asphalt Concrete Pavement or Hydraulic Cement Concrete Pavements (Prior to Overlay) (June 10, 1998)
Undersealing Portland Cement Concrete Pavement (January 3, 1995)

100

Controlled Explosives, April 14, 2008
Section 1051.10 Construction Stakes, Lines and Grades, July 9 2002 (S105A0B)
Use of Domestic Material, July 9 2002 (S102C0B)

200

Low Permeability Concretes, December 2, 2002 (S217A0B)

300

Lime Modification of Soils, May 13, 2000
Section 301 – Clearing & Grubbing (November 15, 2006)
Section 303 – Earthwork (December 2, 2008)
400

Wave Equation Analysis, November 13, 2008

500

Removal or Connection of Asbestos Cement Pipe, November 7, 2005 (S500A1B)

Special Provision Copied Notes
to the
VDOT Road and Bridge Specifications

500

Section 504 – Sidewalks, Steps, and Handrailings (c504b0b), January 12, 2005